8TH
EASTERN HIMALAYAN NATURENOMICS™ FORUM
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Ecology is Economy

Roadmap to the Future
&
The Eastern Himalayan Agenda 2021

Principle Partner & Mentor

TATA STEEL FOUNDATION

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Ecology is Economy

8th Eastern Himalayan Naturenomics™ Forum
1st – 5th December 2020

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8th Eastern Himalayan Naturenomics™ Forum
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ECOLOGY IS ECONOMY - AN INTRODUCTION

COVID-19 has been a stark reminder of human's dysfunctional relationship with nature, as the existing economic system has always acted as a great pressure on our natural environment, and the unfolding pandemic has shone a light on the domino effect that is triggered when one element in this interconnected system is destabilized. **Over 30% of Germany's COVID-19 recovery plan invests in renewables and electric vehicles among others – with little going to petrol and diesel automobiles, a staple of the German economy**. Forest and timber industry today in Germany, accounts for nearly 1.3 million jobs with an annual turnover of about 170 billion, a country where forests have increased by more than 1 million hectares over the past five decades.

According to World Economic Forum, **transforming the food, land and ocean use system has the potential to create business opportunities worth almost $3.6 trillion and 191 million new jobs over the next 10 years,** if the right policies are put in place. Shifting from industrial to regenerative agroforestry also is immediately feasible and would allow us to sequester carbon in the soil at a rate that is sufficient to reverse the crisis. Moreover, doing so would turn a profit, enhance economic and environmental resilience, create jobs, and improve wellbeing in the rural communities.

The Eastern Himalayan capitals and the global community have the opportunity to tackle this ecological crisis and catalyze green growth, but only if we can act courageously and swiftly – and with an eye on the future and its high-intensity risks, not just short-term profits and growth. Only coordinated action by world leaders, communities, business, academics with global, multi stakeholder cooperation – at an exceptional scale and speed – can potentially mitigate the risk and lead towards 'Ecology in the New Economy'.

The green recovery must happen now to be effective, according to the IEA sustainable recovery plan, **Investing $180 billion annually over the next three years to deploy wind and renewable energy could generate huge economic value over the next 25 years**, due to short construction times and declining technology costs**. Nearly 7 million jobs could be created in construction, manufacturing, operations and maintenance, for sustainable recovery and these could boost global GDP by 3.5% in 2023 above usual levels.**

This year's theme of **Ecology is Economy** explored how we can drive this transformation to create the new natural wealth of nations in the Eastern Himalayas through 5 key themes:

1. Natural Assets
2. Employment
3. Net Zero 2030
4. Naturenomics™
5. Animal-Human Diseases

Ecology is Economy

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THE NATURE POSITIVE ACTION AGENDA

Natural Assets

The IUCN estimates around 2 billion hectares of land are available for restoration globally, largely concentrated in temperate and tropical countries. **25% of this land, or 500 million hectares, is suitable for complete rewilding.** Restoring just **350 million hectares could create over $9 trillion in ecosystems services and natural capital**, enriching the global economy indirectly. This amounts to **11% of the global GDP**. But if forests were fully rewilded, this value could rise to **$13 trillion, or 15% of the global economy** through key forest-based industries, the carbon market and mindful natural tourism.

Employment

According to World Economic Forum, **transforming the food, land and ocean use system has the potential to create business opportunities worth almost $3.6 trillion and 191 million new jobs over the next 10 years,** if the right policies are put in place. Shifting from industrial to regenerative agroforestry also is immediately feasible and would allow us to sequester carbon in the soil at a rate that is sufficient to reverse the crisis. Moreover, doing so would turn a profit, enhance economic and environmental resilience, create jobs, and improve wellbeing in the rural communities.

Net Zero 2030

Energy production & use accounts for 30% of emissions today, followed by industry (17.6%), agriculture & land use change (17.5%), transportation (15%) and waste (3.2%). These emissions need to be reduced & reversed. **Natural climate solutions can provide 37% of cost-effective CO2 mitigation needed through 2030** for a >66% chance of holding warming to below 2° C - and over 30% of these solutions can be delivered at less than $10 per ton.

Animal-Human Disease

31% of emerging diseases are linked directly to deforestation: 25% loss of intact forest increases contact between people and wildlife, exponentially increasing risks of transmission. Reducing deforestation will cost $9.6 billion and reduce risks by 40%. **Monitoring and halting the wildlife trade** would cost $22 billion to the global economy. **Reducing spillover through comprehensive health plans for cattle** is one of the simplest and most easy to control solutions, costing $1.2 billion. Implementing these solutions for a decade would still amount to only **2% of the costs incurred by the COVID-19 pandemic**.

Naturenomics™

Through the principles of Naturenomics™ we seek to preserve a balance between conservation imperatives and human development through the creation of ecologically compliant assets, for ecology and economy in interdependence. Through **natural capital regeneration**, driven by habitat restoration & management, rural communities access sustainable incomes and businesses for forest-fringe communities. Through **Rural Futures**, communities achieve socioeconomic mobility & accrue enough value through **natural capital to become self-reliant, accessing and delivering universal basic assets & services**, such as education & healthcare, needed to secure basic human needs for improved quality of life and income.

Ecology is Economy

ROADMAP FOR THE FUTURE

- Comprehensive valuation of Eastern Himalayan natural assets & their natural capital value
- Creation of national ecological budgets, drawing on natural capital & natural asset impacts across the economy to drive financial budgets across Eastern Himalayan nations
- Integrate ecological & social measures & move beyond the traditional GDP model of growth measurement to drive Naturenomics™
- Restructure incentives & frameworks to encourage ecologically sound investment & innovation by businesses & investors
- Synthesize global framework for measuring & assessing natural capital, especially across agricultural land
- Streamline policy & governance structures (especially at a local governance level) to centre natural asset management & reduce overlaps
- Strengthen indigenous governance of natural assets by training indigenous youth leaders and through clear land ownership & access policies
- Involve indigenous & rural communities in designing policies & sustainable agricultural practices/alternative livelihoods options
- Carefully designed collectivization & technical skill development across rural communities to scale and support sustainable, green jobs & livelihoods
- Cross-border & cross-sectoral collaborations to share knowledge, innovate, manage borderless natural assets and collaboratively achieve net zero

Roadmap for the Future

VALUING NATURAL CAPITAL

Comprehensive valuation of Eastern Himalayan natural assets & their natural capital value

The Eastern Himalayan region with its vast expanse of natural capital has the potential to set the benchmark for the development of an ecologically sensitive society. Clearing of forests, pollution of water bodies and air, industrial agriculture, increasing dependency on fossil fuels etc. have been some of the major reasons why the natural assets have become extremely vulnerable.

Forests provide essential provisioning services and immense economic benefits like timber, NTFP, ecosystem services, carbon sinks, air and water purifiers, and scope for numerous agroforestry based livelihoods. But the GDP based economic model, excludes the contribution of natural resources such as forestry, biodiversity, soil, and water. Since value chains do not include these resources in their macro-level calculations, they remain unaccounted for in the fiscal framework. Such narrow calculations have a huge role in the over exploitation, depletion and degradation of these resources.

One of the major reasons for valuing the Eastern Himalayan natural capital bank is the question of raising capital through debt. Natural capital valuation provides the scope for building useful information meant for informed economic choices & public investment. By identifying the true value/potential of the natural assets in the EH region, the exercise also ensures that the communities reap the economic and ecological benefits. An extensive study done by the Green Indian States Trust suggests that in the absence of any 'Green Accounting' adjustments the true economic size of India's North-eastern states is significantly understated. Fig. 1. below indicates the issue.

The study emphasizes that the capital gains due to the natural worth of the region is very significant in the North-Eastern region. Therefore, the economy of the region as a whole stands out compared to other states furthering the need to economically look at these states differently.

North-Eastern State	Unadjusted 2003 GSDP * (INR Mio)	Unadjusted 2003 NSDP * (INR Mio)	2003 adjusted NSDP ** (INR Mio)	Adjustment as % of GSDP	Depletion and degradation (INR Mio)	2003 ESDP (INR Mio)	ESDP/ adjusted NSDP
Arunachal Pradesh	19,451	17,395	32,361	77%	390	31,169	1.01
Assam	354,314	317,208	318,911	0.5%	−663	318,070	1.00
Manipur	35,313	32,048	33,217	3.3%	11,325	44,433	1.34
Meghalaya	43,429	38,423	40,774	5.4%	2532	43,034	1.06
Mizoram	17,687	16,346	18,894	14.4%	−647	18,054	0.97
Nagaland	36,794	34,272	3392	−0.9%	1649	35,596	1.05
Tripura	60,617	56,603	55,950	−1.1%	4208	60,202	1.08
Sikkim	11,527	10,387	10,886	4.3%	296	11,131	1.03
Total: North-East	579,132	522,682	544,915	3.84%	19,090	561,689	1.04
Percentage of total	3.1%	3.2%	3.3%		−25.6%	3.4%	
Total: INDIA	18,539,943 (GDP)	16,387,846 (NDP)	16,542,370	0.1%	−74,639	16,449,724 (EDP)	0.99

* *Official figures provided by CSO*

** *NSDP adjusted for unaccounted forest income.*

Environmentally adjusted state domestic product for the North-eastern states *(Haripriya et al.)*

Roadmap for the Future

ECOLOGICAL BUDGET

Creation of national ecological budgets to drive financial budgets across Eastern Himalayan nations

While the valuation of natural capital is the first step towards the true assessment of natural assets in a region, the creation of ecological budgets ensures that the natural capital bank is monitored effectively. In any economy, budgeting and fiscal policies form the backbone of all the development targets. Policy makers rely on this budgeting system for efficient capital allocations towards different development goals. But with growing resource scarcity and increasing need for development, it's tough to use these resources judiciously. Therefore, the need for an ecological budgeting system becomes paramount to assess the development trajectory of a nation. It also resolves the dilemma between the need to develop vs. nurturing the natural resources. Integrating environmental factors into the fiscal structure of an economy, especially the annual national budget, will allow the government to keep an eye on the natural capital expenditure. It will also help the policymakers come up with better alternatives for 'grey infrastructure based development'.

An ecological budget also offers policymakers the tools to incentivize new businesses, by restructuring incentives, taxes and subsidies towards projects, businesses and infrastructure that generates both economic and ecological benefits. In states such as Arunachal Pradesh which hold the vast reserves of India's natural capital, the weighting of an ecological budget as the progenitor of the financial budget will provide the structure for fiscal decisions that align ecological and economic growth.

The call for developing National Ecological Budget presents a very unique opportunity to increase the accountability of the state towards the conservation and management of the natural resources. By aligning the national ecological budget (NEB) with the Integration and Public Participation principles within the ambit of international environmental law, the NEB would also empower the indigenous communities regarding the rights to ownership, accessibility and governance. Involving communities through participatory budgeting and civic decision-making regarding natural asset accessibility and governance will strengthen rural futures and pave the way for socioecological societies.

The Eastern Himalayan nation of Bhutan is renowned for its strict commitments towards environmental protection. Bhutan has set an extraordinary example of how if managed efficiently, natural capital can form the basis for economic prosperity and human well-being. Bhutan heavily depends on tourism for its forex value. It is the second most valuable industry in Bhutan after hydropower. Between 2016 and 2017, the tourism revenue rose from USD 73.7 million to 79.8 million. The current model of tourism that Bhutan follows is 'high value-low impact'. The policy framework is such that every plan, policy and program has to undergo the gross national happiness screening. This goes on to show that economic policies can also be formulate based on the aspirations of the citizens. Bhutan's economic philosophy is the perfect launch pad for the development of a national ecological budget. This will ensure that the resources are well taken care of, there is sustainable growth and communities benefit from the economic policies.

Roadmap for the Future

DESIGNING INTERDEPENDENCE

Integrate ecological & social measures, moving beyond the GDP model of growth measurement to drive Naturenomics™

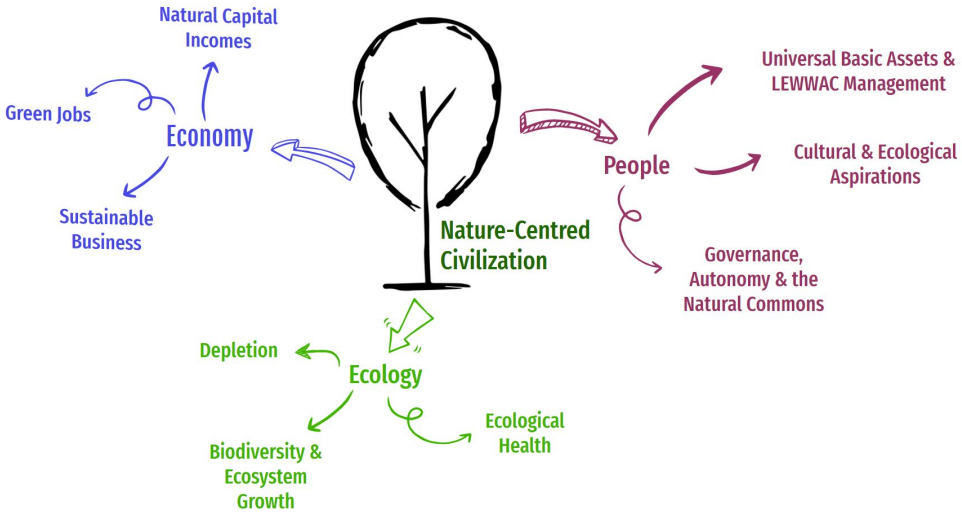
The GDP is a highly debatable measuring growth, excluding as it does, natural capital from measures of economic growth. For instance: if a forest patch is cleared for agricultural expansion, the GDP increases, though overall ecosystems services decline. It doesn't account for the depreciated natural capital, and neither does it account for all the natural capital which underpins the existence of other forms of capital thus leaving them out of market valuation.

Various alternative indices like the Sustainable Development Goals Index have been proposed as alternatives, but still lack complete integration. The ecological indicators within the Sustainable Development Goals index are often contradictory in their aims and measurement of the actual phenomena. Out of the 322 indicators, only 29 are in some or the other way associated with the use of natural resources, biodiversity protection and climate action.

As a result, a major chunk of pertinent issues get side-lined while designing and tracking the growth trajectory.

A transformative measure to drive this would have to include measures on:

- Ecological destruction
- Ecological health
- Positive biodiversity changes
- Net zero - carbon
- Cultural ecological aspirations, geoconsciousness & human wellbeing
- Access to Universal Basic Assets & Services - food security, water, energy, education, healthcare, waste management, transformative living spaces, democratic services
- Sustainable livelihoods and opportunities - sustainable incomes, green jobs & sustainable business opportunities



Roadmap for the Future

NATURE POSITIVE INCENTIVES

Restructure incentives & frameworks to encourage ecologically sound investment & innovation by businesses & investors

On these lines there is also a growing sense of consciousness to move gradually towards green growth and innovation by businesses and investors. If a definition has to be placed on them when it comes to investors strategizing differently to build on eco-innovation – the ideal relationship would be in accordance to development and the use of eco-technologies that may enhance eco-efficiency alongside sustainable consumption and production patterns.

The building of frameworks and incentives to encourage sound ecological investment would mean the usage of synergy instead of scale to enrich value-based systems. One such example could be a mapping of emissions in the value chain and planning of the implementation process for future mitigation and adaptation. This process will eventually create a protocol for sustainable and slow scaling up based on the integrity of the work being done.

OECD has also stated very clearly that efficient use of natural capital will not only promote innovative ways of economic activity but foster new economic opportunities from the emergence of new green activities. Therefore, the multiplier effect of the same would lead to green jobs addressing the major concern of unemployment in today's day and age.

Pro-active climate resilience measures/climate change adaptation and now, a pandemic preparedness must be framed as a country's legal obligation to ensure equitable health systems.

The modification and improvisation of existing technologies may raise the efficiency of resources and energy use even under severe circumstances like the 2020 pandemic in the near future – henceforth creating a dominant form of innovation framework for a nation at large.

Current incentives rewarded by the GDP income measure perversely incentivize the destruction of natural capital. Restructuring these incentives requires an assessment of natural capital, identifying the opportunities of natural capital as an investment strategy. Part of this also means restructuring how we value firms and how we account for their net valuation and profit. A full accounting of natural capital use, depletion and restoration across a business' value chain and its incorporation in its account books will give a clearer picture of the true net value of a business - revealing those businesses whose profitability is short-term and short-sighted, against businesses whose value propositions have greater sustainability and longevity in the face of both climate and biodiversity risks.

This valuation system has to be supported by a broader policy framework. A business responsibility index that positively weights businesses with ecologically restorative practices is one way to go. Reframing environmental impact assessments is another. Current impact assessments overwhelmingly focus on mitigation action i.e. reducing damage and harm. However, an adaptive approach is needed too, to weight positive ecological and social impacts, thus nudging businesses towards nature-positive business models, by also providing tax and subsidy support structures that channel public investment into green businesses.

Roadmap for the Future

GLOBAL NATURAL CAPITAL FRAMEWORK

Synthesize global framework for measuring & assessing natural capital, especially across agricultural land

Estimates suggest that since 1990, 420 million hectares of forest have been lost land use change, with agricultural expansion being the main driver of this decline. Data indicates that between 2000 and 2010, large-scale commercial agriculture accounted for 40% of tropical deforestation whereas local subsistence agriculture accounted for another 33%.

Industrial agriculture has other negative consequences. A total of 9 plant species account for 66% of the world's food production. Limited biodiversity in food production threatens overall crop resilience and food security, and an overreliance on hybrid varieties requires intensive use of chemical fertilizers and pesticides, that in turn contribute to soil depletion, desertification and the disappearance of critical pollinator species vital for ecosystems survival. Agricultural lands account for 16% of global carbon emissions too and is among the top three causes of global emissions today.

Making the switch to regenerative methods such as organic farming, zero till or agroforestry could turn farmlands into carbon sinks and reduce overall carbon emissions. Moreover, doing so would turn a profit, enhance economic and environmental resilience, create jobs, and improve wellbeing in the rural communities.

Over 70% of the Eastern Himalayan region depends on agriculture, in one form or another, for employment and income. Outside of its rich forests, the largest concentration of natural capital resides both in its sprawling tea plantations and the smallholder farms that dot the region. Natural capital measurement across agricultural systems can help facilitate both greater productivity as well as just outcomes for both people and biodiversity.

Measuring this natural capital across farmlands, however, requires a systematized framework that allows for expansion and scaling across multiple contexts. the harmonizing of this measurement framework, but also its harmonization with policy to incentivize and support farmers incorporating natural capital enhancing practices on their farms.

For a region which consists primarily of smallholder farmers, measuring natural capital could be done collectively, to distribute costs and aggregate gains. Farmers need to be equipped with the tools and training to measure this natural capital: something as simple as counting the number of earthworms in a cross-section of soil within a square metre of farmland. With these measurements, farmers will have a better understanding of the overall ecological health of their lands - and with institutional training and support, can take steps to enhance this health.

Effectively doing so calls for a globally concerted effort amongst all the nations to harmonize this measurement. Such a network would allow sharing of best practices, knowledge, and contextual understanding for developing a comprehensive framework. A global framework for measuring & assessing natural capital in farms would also set standards and benchmarks for sustainable agriculture.

An integrative approach for both social and natural capital - people and biodiversity - is crucial. Together, they can deliver greater resilience and sustainability across farms, empowering workers across the food production value chain while protecting the web of biodiversity and ecosystems services that, in turn, facilitate healthy crop growth and greater productivity.

Roadmap for the Future

LOCALIZED NATURAL ASSET GOVERNANCE

Streamline policy & governance structures (especially local structures) to centre natural asset management & reduce overlaps

The assumption that Central control could possibly lead to better governance structures and layouts needs to be looked into in-depth as it has a direct linkage to streamlining policy implementation and the carrying forward of community forests resources management.

Having said that, the suggestive pattern in India revolves around creating guidelines that work towards the enhancement of the existing acts creating transparency and accountability through decentralized methods of governance structures. In the current Community Forest Resources Management Plan, there are clauses that state that the Gram Sabha (or the local governance/grassroot level democratic institution by virtue is expected to decide the overall framework and objectives. The clause includes the engagement of women and forest dwellers to understand the dynamic changes in the needs of the people living in the fringes based on their consumption patterns and livelihoods as well.

On the other hand, natural assets support the delivery of local governance while increasing levels of service, ability to adapt to climate change through traditional knowledge systems of habitat restoration and most importantly, reducing community's unfunded liabilities – all while protecting or enhancing multitude of other benefits.

Currently, there is no single system for classifying all aspects of natural capital or natural assets, alongside understanding policy and governance structures. Local Governance can lead to expanded understanding of on-ground realities leading to clear manifestations in streamlining of natural asset management, thus leading to reduced overlaps.

Of particular importance is the need to clearly delineate and identify the rights and responsibilities of stakeholders in managing forests at a local level. Existing policy structures either locate these rights and responsibilities across multiple stakeholder groups - leading to a proliferation of committees and complex structures that make natural asset management complicated and confusing - or else centralize this control, away from communities living in proximity to these natural assets. Public funding and investment needs to be effectively channelled into these natural assets by streamlining the pipeline of funds made available under public restoration policies, for example.

Biodiversity preservation and climate policies need to be integrated to ensure mutual goal fulfillment, reduce incoherencies and minimize the threats to standing natural assets that climate infrastructure poses. E.g. expanding hydropower in Arunachal Pradesh, Sikkim and Bhutan at the risk of key ecosystems and old growth forests undermines the net benefits of clean energy by releasing carbon from destroyed forests and damaged ecosystems. Net carbon benefit measures have to be introduced as well, along with effective climate and impact assessments.

A paradigm shift is required among communities, to see natural assets as owned assets, rather than government owned assets that they are permitted to extract from. Crucial to this is a more effective formulation of rights and access policies, reflecting, especially in the Eastern Himalayas, the multiple traditional land and forest management practices that have existed. These practices must be strengthened and coupled with modern scientific capacity building, to enhance local capacity for natural asset management.

Roadmap for the Future

INDIGENOUS LEADERSHIP

Strengthen indigenous governance of natural assets through clear land policies & indigenous youth leadership

Indigenous lands around the world hold 80% of the world's biodiversity despite covering only 22% of the world's total land. Around the world, indigenous communities have been managing natural assets through practices that sometimes go back centuries. Over time, these practices evolved into symbiotic relationships between communities and ecosystems, supporting their mutualistic survival.

The Eastern Himalayan region is home to nearly 400 different ethnic groups, many of whom have traditional land and forest management practices that have played a key role in preserving the region's forests. Studies by the World Bank reveal that clearly delineated rights regarding forest management, devolving control to indigenous communities in Meghalaya, Arunachal Pradesh, Manipur and Tripura have been critical in preserving forests on the whole. Similarly in Nepal, the push for community forestry has played a role in restoring Nepal's forests, especially in its central hill regions.

However, the rights of indigenous communities to manage lands remain fragmented and unrecognized. Collective land management practices, for example, are under-recognized and directly conflict with land policies that favour privatization and individual ownership. Better structures have to be put into place, therefore, to recognize both traditional and collective management practices and clearly delineate ownership and management of forestland. Indigenous communities need to be represented on decision-making institutions regarding the use of natural assets, including approvals for development and project work. Participatory budgeting for natural asset management, as well as participatory decision-making is vital.

Training indigenous youth leaders is a form of asset building for communities who are engaged in or are to engage in conservation practices. This is so due to the multiple factors playing in. These indigenous youngsters have been identified as future decision makers who have some knowledge if not in its entirety, education in traditional practices alongside contemporary leadership skills that may eventually fade away if not preserved in due course of time.

It is very true that self-governance agrees with the idea of self-determination upholding treaty agreements of indigenous population and their historical nuances – this may be in the form of a relationship with the forests or minor forest resources.

As forces of modernity are attuning younger generations to move away from the natural world, the apathy to youth to nature is escalating. Custodial responsibilities for the environment or our natural resources held by indigenous land and owners are usually passed on to younger generations. Therefore, the appeal for strengthening indigenous governance is not just a luxury but the opportunity to exercise this responsibility to care for traditional lands.

The engagement of Indigenous young people in natural resource management can have multiple benefits in providing for some young people a career path where employment options are otherwise limited.

Roadmap for the Future

INDIGENOUS POLICY & LIVELIHOOD DESIGN

Involve indigenous & rural communities in designing policies & sustainable agricultural practices/alternative livelihoods

The process of handing over the baton to indigenous communities to design alternate livelihood models which could then become policies is a perspective that requires a great deal of awareness creation. This would involve understanding daily actions on how it is contributing to loss of valuable natural assets – thus, inevitably creating an intrinsic sense of heightened realization on alternate means of agricultural practices of livelihood models.

The opportunity here for indigenous communities would be entrusted on the great many chances of showcasing the already existing talents and traditional practices that make the basis of their culture. One such example could be to apply building on community based forest management that entail minor forest produce and build on a sustainable value chain which has high levels of commitment involved in it. Commitment would also provide leverage to these indigenous people to build on a factor of trust, building on their entrepreneurial skills, accountability and ownership.

On a more academic note, the alternate livelihood approach which came about in the 1990's reflected on a paradigm shift or a shift with a new millennium approach with distinguishable policies. This can be seen as the most sought after approach in today's time and known as the "Third Approach" between the rusted labour ideology of the past and the neoliberal ideology of the conservative administration. The curation of a pathway for rural communities to design their policies so as to build on a green economy will show the effectiveness of a bottom up practice with utmost optimism to develop more efficient poverty alleviation policies in the forest fringe communities along with conservation of natural assets.

Indigenous communities need to be involved as stakeholders in decision-making processes that directly impact their landscapes and livelihoods. This means an expansion of consultations with communities and active involvement of indigenous peoples at an institutional level. Indigenous decision-making institutions and processes need to be awarded official recognition. Traditional ecological knowledge and its potential in livelihood design and sustainable agriculture must be recognized and supported. A top-down imposition of practices must be avoided, instead fostering continued experimentation, cultivation and development of local knowledge and resilience - including resilience through broadening the genetic pool and biodiversity of food production among rural, local and indigenous communities incorporating heritage strains and species.

However, scientific concerns regarding agricultural practices and alternative livelihoods cannot be abandoned. Where traditional practices no longer are sustainable, a middle ground must be found between sustainability and cultural needs through culturally sensitive design, adapting scientific solutions to local contexts, needs and behaviours.

Roadmap for the Future

RURAL CLUSTERS

Carefully designed collectivisation & innovation support to scale and support rural sustainable, green jobs & livelihoods

Historically, the rise and growth in the economic system has been at the cost of diminishing biodiversity. With respect to integrating labour into the concentric circles of ecology and economy, recognition of the process of labour can only happen through the process of collectivisation and collaboration. Amul Co-operative is a good example in which natural resources labour has been rewarded in a sustainable manner. A sustainable bio-economy based endeavour in the form of a co-operative, such as Amul, is one way to see how labour, natural resource and economic integrations can be made.

The proper collectivisation of small farmers-producers has not happened successfully in this region, despite existing farmers-producers organisations. A closer look at how income can be realised by generating a sustained demand, methodical industrialisation and employment, in the wake of reverse migration due to COVID-19 for example, is required. Collectivisation is essential for this, but poses a challenge in replication, demand and equitable growth in this region. Several co-operative movements have failed and have been linked to excessive government interference.

With strong pressures on FPO's and SHG's to take forward the government's green economic policy, creation of green jobs need to be looked at, at a micro and grassroots level, ensuring that people are trained and have the requisite skill sets to take it forward. Clusters of SHG's come together to pool in resources, talents and traditional knowledge as a transition from the unsuccessful government-led co-operative movement to collective SHG's, FPO's and off-FPO's.

Sustainable agricultural interventions for stakeholders and reinstating technology are essential to bring back and create green jobs in a bio-economic model, towards generating employment and productivity. For transition from skill development to entrepreneurship development, tweaking the scope available (like MNREGA network of operation) will help ecological restoration enable livelihood management.

A strong support base needs to be developed in channelling investments from urban hotspots to rural communities. The cluster model of development is a potential model for successfully unlocking this investment channel. Support must be built for jobs along the rural value chain, including support infrastructure such as green packaging and sustainable processing. A cluster model which unites these elements of the value chain, creating a localized end to end support system for small farmers will enable rural and indigenous farmers enhance the value add of their produce - enabling them to command higher prices and sell to a wider market. Investments in these clusters can be raised against the natural capital value of the natural assets created and managed by these rural communities, paving the way for a circular, closed loop natural capital economy.

Roadmap for the Future

CROSS-BORDER, CROSS-SECTOR COLLABORATION

For knowledge sharing, innovation, borderless natural asset management and collaboratively achieving net zero

The decision to move to a sensible and sustainable development course of action for the future needs to come now, as the next 10-20 years will be absolutely decisive in terms of climate action and mitigating the degradation to the environment worldwide, having reduced the natural capital by about 40% in the last 25 years alone.

To stabilise temperatures and concentration of greenhouse gases globally towards achieving a balance of net zero by 2050, big interactive systems associated with emissions such as industries and use of energy, transport, land, the management and contributions of populations and awareness of different sectors play a very big role. In the Eastern Himalayan region consisting of a big bulk of small-holders, management of land and forests is very important as the consequences of emissions can cause instability in hills and mountains of the region leading to various ecological disasters and loss of biodiversity.

The management of the Eastern Himalayas is critical as it is at the ecological nerve-centre. Partnerships and collaborations are therefore critical. Industries and businesses need to collaborate with NGOs, knowledge resource centres, civil society, and assess the impact on the people and the planet, and be mindful of the ecosystem in which they operate. Community and business leaders need to innovate in order to operate under a code of ethical practices and pledges to conserve and assess the profitability of use of natural resources and its management.

To preserve the momentum of the net neutrality movement principles, global energy transitions and reshaping of big business models need to be supported and encouraged to mitigate the threat to the future of the planet and to build a collaborative network of borderless natural asset management.

The Eastern Himalayan region consists of complex natural assets that spread across borders - rivers, mountain ecosystems, forests and more. Over the past few years, for example, flooding in Bangladesh and the increasing salinity of the mangroves of the Sundarbans has been linked to shifts and failures in river management upstream in India. Natural asset diplomacy is urgently needed, for the region to collaboratively manage these natural assets, ensuring their health and minimizing harm to communities impacted by changes to these natural assets. Coordination is needed at a policy and diplomatic level to achieve this collaboration, as well as knowledge sharing through indigenous collaborations - in a region as ethnically diverse, encouraging knowledge sharing and learning across ethnic lines could not only help develop stronger and responsive strategies for natural asset management, but also nurture tools for further cooperation and reconciliation.

Roadmap for the Future

THE EASTERN HIMALAYAN AGENDA

Arunachal Pradesh
Developing effective mindful tourism

Manipur
Sustainably managing wetlands

Meghalaya
Bioresources & traditional knowledge for indigenous livelihoods

Mizoram
Solutions for sustainable jhum and community livelihoods

Nagaland
Transitioning hunting traditions for sustainability

Sikkim
Reconciling green energy & lives and livelihoods

Tripura
Driving community management of river systems

Bangladesh
Building community solutions to protect the Sundarbans

Bhutan
Indigenous livelihoods for forest protection

Myanmar
Community-centred solutions for halting deforestation

Nepal
Sustainable livelihoods for climate change and migration mitigation

The Eastern Himalayan Agenda

SIKKIM

Green energy posing potential threat of green depletion

The dynamics of changing developmental practices in congruence to the role of policies, have created a rift in the green energy sector in Sikkim. The state is the least populous region and yet it has managed to create its own niche, as per common knowledge.

The dire need of the indigenous communities and the activism that has been taking place in Sikkim lies at the heart of a disconnect between the mega dams being built leading to possibilities of disastrous impacts on the people, their culture and the ecology – more so with climate change.

The urgent need of the hour is to remodel the magnanimity of the energy projects in the region. As mentioned, Sikkim is a less populous state therefore the question that arises multiple times is why would there be a need for mega hydropower plants at the cost of disrupting the terrains which are hilly with multiplicity of biodiversity along with the diminishing Teesta river.

The voices of the commons have to be heard who own lands and need a means to generate livelihoods for themselves along the banks of the river and in the hilly regions of Sikkim. Thus, highlighting the importance of the ecosystem services as a cultural vice or rather identity as well. The carrying capacity of the river for example will matter along the lines of understanding the usage and generation of renewable energy at various institutions.

The translation of national policies into action, especially at the local levels alongside decentralization of objectives into regional and local contexts is necessary. An action plan that would address the basic needs of the people of Sikkim in terms of green energy as a resource instead of building on mega hydropower dams should be a reflection on the on ground realities. Henceforth building on the actualities of development in the state/regional with due consideration community advocacy and restoring of the existing ecosystem services.

The Eastern Himalayan Agenda

NAGALAND

Community for conservation: A transition from community into hunting

The hunting culture manifests everywhere in Nagaland. The number of Amur Falcons and other bird species that were captured and killed in the year 2012, were close to 1,50,000. But over a year, by 2013, there seemed to be a drastic change. There were zero kills that took place in the state. This peculiar scenario built on the curiosity of many to grasp the sudden paradigm shift into conservation from a hunting community overnight.

The only reason for a transition took place when the community at large and farmer, who largely work around a hilly wet terrain tried to understand with the help of the state departments and other non profit organizations on reducing the killing of the Amur Falcons and building on alternate sources of livelihoods pertaining to the available natural assets.

With regards to this community approach to conservation, there seems to be a overarching concern of how indigenous communities like that of the Naga tribes could benefit from the ecosystem services around them while curating a model to sustain balance. The most emphasized source of rich cultural knowledge and in the forefront of the recent conservation patterns were the elderly, identifying the importance of species over decades of their living experience.

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MIZORAM

Community engagement & scientific approach to re-invent shifting/jhum cultivation

The word Jhum has been misunderstood at multiple levels by various sectors. This is a practice that has been prevalent traditionally across the world. Jhum is ideally not synonymous with "slash and burn system" – rather a traditional agro-system with harmonious customs and rituals that govern agriculture.

The current data is still dependent on the data that was collected in the 1970s which implies the irrelevance. Current data suggests jhum cycles are 7-10 years & that this is enough for regeneration. Subsequently, it has been understood that solid science & data is needed to drive jhum policy for greater sustainability. Shifting cultivation is sustainable in two major ways –

- It is resilient to external or exogenous disturbances
- There no negative output when it comes to understanding the exhibits of this practice.

As mentioned above, the most critical time frame is of the length of fallow land so as to allow the land to rejuvenate. The sustainability of the jhum cycle must include community members who can make apt decisions. Similarly, the solutions also have to be farmer friendly and build on existing traditions for greater adoption.

There have been multiple studies carried out in states like Mizoram to understand the local context and then building on a development plan that would support jhum cultivation. One such example is that of farmers stating the method of decomposition which eventually uplifts the soil nutrition in comparison to commercial methods of farming.

Additionally all farmers need to be supported by market linkages, and other enterprises providing them with opportunities to expand their options of alternate livelihoods, thus enabling them to improve their socio-economic condition.

The Eastern Himalayan Agenda

MANIPUR

Lakes & Wetlands: the 'Lifeline of Manipur', losing life due to increasing human activities

Wetlands are complex elements in the ecosystem around us, that occupy the interface between land and water. They have been and will continue to be a part of the landscape with our without human existence along with the understanding that there is an intrinsic relationship keeping in mind the functionality of these wetlands to human existence.

The world's fresh water lakes are vanishing very quickly and the reasons are in abundance – they may also vary from region to region. But in the context of Manipur in alignment to its abundance of lakes and wetlands, there seems to be a concern that is multifaceted.

Anthropogenic activities have led to rising levels of pollution which has been affecting populations of animal species, forest cover, characteristics of hydrological processes and so on. Loktak Lake, the largest natural lake in north-eastern India, occupies the southern part of Manipur valley, which runs north-south through the centre of Manipur state. Due to its importance in the socio-economic and cultural life of the people, it is considered as "The life-line of Manipur". If we take into consideration this particular lake which is also an amalgamation of many wetland ecosystems, the communities are directly or indirectly linked to the existence of this very lake.

Therefore, there needs to be a system in place which oversees a watershed management approach to allow ecosystem services to flow smoothly and hence allowing harmony to take place between man and the environment. Additionally, the synchronized indigenous knowledge base has to permeate the wetland policies with a bottom up approach to understand the trajectory of the wetlands themselves.

The building of an adaptive capacity through outreach programs on the importance of the lakes leading to conservation and preservation plans, would enhance the understanding of low carbon and low impact infrastructure. This would not only impact that existing over exploitative methods of people in the region but also create a monitoring system to minimize impacts.

The Eastern Himalayan Agenda

ARUNACHAL PRADESH

Mindful Tourism towards generating livelihoods opportunities

Surrounded by the lush green beauty of the Himalayan ranges, Arunachal Pradesh is the largest among the seven North East Indian states, with a diverse topography consisting of rivers, dense forest areas, valleys and even a snowline. The economy of the state is predominantly driven by the agrarian sector but other key industries include- tourism, art and crafts, weaving, cane and bamboo and hydropower. As per government estimates, around 7,653 foreign tourists arrived in the state while 512, 436 domestic tourists visited the state in 2018.

However, the current tourism model has proved detrimental for the socio-ecological fabric of the region. That's why there is an immediate need to introduce an alternative model of tourism which caters to both- the human as well as environmental well-being. Mindful tourism also presents an exciting opportunity to build resilient economies by resilient economy just by leveraging the natural capital of the region.

But all this would require the state government to take certain actions and introduce practical policy changes with regards to natural capital management. With a rich biodiversity in the state, the onus is on the government to involve civil societies and communities in the conservation of biodiversity. There is a need to integrate the social principles with scientific principles to achieve a sustainable and robust natural resource management system. By incentivising such a sustainable approach to resource management, the state can enable the communities to reap economic benefits and incentives emerging out of the different ecosystem services.

A strong focus on preserving the rich ethno-botanical heritage of the state will also help build attractive tourism opportunities. But it would need the push by the administrations and government bodies to come up with plans to educate and involve the youth and gear them up for tourism related entrepreneurial models. With appropriate fiscal incentives, infrastructure and mentorship, the youth can play a major role in strengthening the local economy.

By getting into strategic collaboration for the capacity building of the youth, the state can help take forward the traditional practices and enhance the local economy simultaneously. This would also inculcate trust in the communities as they are made the torch bearers of conservation through mindful-tourism activities.

The Eastern Himalayan Agenda

MEGHALAYA

Floral Diversity in the West Garo Hills - Through the Ethnobotany lens

Famous for its high rainfall, subtropical forests and biodiversity, Meghalaya is one of the most fascinating North East Indian state with diverse topography and social systems. It is worth noting that Meghalaya is one the very few places on Earth that has a matrilineal system. Studies around the world have already revealed that when women are in charge of the economic decision making of a household, there is a high chance for the household to move up the socioeconomic ladder. The reason why this happens is because women tend to allocate the financial resources at hand for better education and health. Taking cue from the traditional way of living being practiced by the communities in Meghalaya, it is therefore very important to capitalise on furthering this trend.

Meghalaya with its diverse forest types and agro climatic is highly rich in medicinal plants. This richness is also a consequent of the people's traditional understanding of ethnobotany. According to the Meghalaya State Medicinal Plants Board, 834 medicinal plant species have so far been reported. The communities in the region have traditionally sourced medicinal plants from the forests for curing diseases and ailments. This is one of the peculiar aspects of the traditional heritage of Meghalaya i.e. the dependency of communities on locally sourced medicinal resources. But with time, the youth has started dissociating itself from their knowledge roots. There is a high out-migration from the state to other metros in search for a better life.

With its rich traditional heritage, Meghalaya can be the cradle for a NaturenomicsTM civilization in the Eastern Himalayan region. The NaturenomicsTM civilization visualises a society based on local resource consumption and regeneration. It advocates the need for sustainable and value based production and consumption leading to social, economic and ecological well-being. For instance- by pushing for skill development and knowledge dissemination, the younger generation need to be sensitized of their heritage and culture and be encouraged to use their traditional ecological knowledge to build business opportunities. One of the ways could be through promoting & enhancing local herbal products rooted in traditional practices. For this to get actualised there is a need to ensure that the youth have access to affordable education and high quality skill training. It is important to note here that education needs to go out of its way in just imparting formal education and be centred on indigenous knowledge. Research and evidence driven advocacy campaigns can go a long way in encouraging the youth to understand the true value of their culture.

The Eastern Himalayan Agenda

TRIPURA

Restoring river ecosystem: Community Approach towards preserving ecological diversity

Rivers in Tripura are not perennial in nature and are seasonal, depending on rainfall and other sources. As the demand and usage of water in urban areas increases, control and regulations on water pollution are of paramount importance in the riverine system, with a great onus on the community and businesses to take active leadership roles in preservation. Users and NGOs along with the government are different stakeholders who need to look at multi-dimensional solutions with a dynamic equilibrium to tackle the increasing problems.

Anthropogenic activities have had a severely negative impact on the river systems of the state. A lifeline riverine industry, such as the rubber processing units, have been polluting the rivers with hazardous chemicals that results in downstream poisoning, also reducing several important fish species which have been a source of livelihood for the community. River flow management and dredging of river beds are important to fight pollution, mainly to the benefit of people who are harnessing river water for daily activities. Creation of a buffer zone and waste disposal is also crucial to this.

Community participation is required for sustainable solutions. Forming an institutional structure can also be looked at, in addition to prevailing institutions, strengthening the existing systems with scientific support and implementation of extension initiatives. A proper network amongst the various stakeholders can converge towards applicable problem-solving. There is also a need to look into alternative water sources in the Northeast, such as rainwater harvesting, which may reduce the pressure on river water and generate an income for the community. A participatory approach of the riverine community in planning and development can lead to conservation of biodiversity and sustainable development, community livelihood schemes and sharing of traditional knowledge value chains along with planned flood control and relief systems.

Protecting the river ecosystem with practices such as embankment plantations can be done using bamboo and other suitable plants. Local communities need to step in as guardians and stakeholders of the rivers to build awareness and be a part of urgently required waste-management systems. Symbiosis between traditional knowledge and protection of valuable assets with innovative technology partnership and networking can lead to healthy management practices. Social media platforms, awareness building films and documentaries could be used as tools of engagement.

The Eastern Himalayan Agenda

NEPAL

Climate Change & Unsafe Migration

According to the Asian Development Bank (2017), almost 25.2% of the population in Nepal fall below the national poverty line of $1.90 USD. Environmental degradation, political and civil instability and a dysfunctional domestic labour market limit opportunities for employment, contributing to poor socioeconomic mobility in the country. As a result, most skilled and semi-skilled labourers migrate to foreign countries in search for employment opportunities and better standard of living. According to statistics from the Nepal Ministry of Labour and Transport Management, around 2.7 million Nepali migrants work around the globe in over 27 countries. While remittances help Nepal's overall economic growth, the over-reliance on foreign reserves hurts the social equity and sustainable growth of Nepal.

Leveraging its natural asset banks to galvanize its economy is a must. Localization of value chains will reduce external dependency. For truly equitable outcomes, a structure must be developed to support indigenous traditional knowledge systems for natural resource management and sustainable businesses. This would help revive the economy by:

- Building localized entrepreneurial ventures
- Creating green jobs
- Reducing the risk of politically induced resource scarcity
- Building sustainable business models
- Limiting out-migration

Building the capacity of the indigenous communities and devolving control of natural resource management would also ensure sustainable use of these resources. For instance- 37.4% of Nepal consists of forests and another 15.7% of this land could be rewilded (FAO). Introducing and promoting agroforestry in these areas can significantly raise the region's socioeconomic mobility. A traditional management system based agroforestry practice will ensure that there are minimal risks associated with environmental degradation, climate change and other vulnerabilities.

Local youth must play a central role in this move. Through active awareness and advocacy programs, indigenous youth need to be promoted to develop businesses. Trained youth could form mentorship networks for other local youth who are interested in doing their own businesses - encouraging entrepreneurship while addressing lifestyle aspirations.

The Eastern Himalayan Agenda

BANGLADESH

Mangrove Ecosystem: Habitats, Communities & Livelihoods

Climate change effects are on the rise in the tidal mangrove forests of Sundarbans. Rising salinity, changes in the salt quality of land and water, restricted tidal waters causing a rising forest floor and siltation, rapidly eroding topsoil are some of the natural occurring processes causing unprecedented adaptive changes in the region. Oil spills caused by industrial pollution and natural calamities, have further damaged biodiversity, in addition to illegal poaching, fishing and poisoning, over-harvesting of the fish and crab resources, unregulated industrial pollution, contaminated forest water and developmental pressures.

There is a need for innovative solutions for local people to move away from illegal forest activities towards sustainable management of the Sundarbans' biodiversity. Establishments such as Eco-management Committees (2010) and resource management groups have been set up by the government with policy-level approval from the Planning Commission for area allotments to the community people, which is around 3 million people living in the periphery of the Sundarbans. There is a need for stream-lining these initiatives for livelihood and protection of the resources of the Sundarbans and search for alternative livelihood sources and cultural integration practices which do not damage the activities and biodiversity of the Sundarbans.

Harvesting activities of aquatic and vegetation resources and animal nursing/spawning grounds managed by the forest departments should be enhanced for the betterment of the forest resources and reduce vulnerability of the populations of the peripheries and coastal areas of the Sundarbans, prone to dependence and often misguided activities for livelihood that put pressures on the forests. Strategic rehabilitation and management of the mangrove ecosystem depends on guided community leadership initiatives, awareness, capacity building and sustainable income development.

There is a great need to increase the dialogue and collaboration with India for release of freshwater flow to effectively tackle rising salinity. Cross-border resource sharing and collaboration with governments, NGO's, knowledge centres and civil society movements will provide the much requisite boost to the preservation of the ecosystem of the Sundarbans and to help mitigate the rampant damage and declining biodiversity and sustainable ecosystem integrity of one of the world's last large treasure of mangrove forests.

The Eastern Himalayan Agenda

BHUTAN

Indigenous People & Forests – A Symbiosis for Conservation & People

There is an urgent need to advance policy changes that will reconnect people and forests in a more significant way. Bhutan must modernize its forest policy to allow people to have more ownership over their forest resources. Local people's way of life and culture are useful for forest conservation and lack of these leaves a gap which is hard to fill, bad for symbiotic relationship. Local people's disturbance of forests has ecological benefits such as regeneration, reducing forest fires, etc.

Transferring ownership from community to state is not the best option unless accompanied by people centric policies and good leadership. However, in the absence of people-centric policies, illegal access may accelerate which combined with materialistic lifestyle based on consumption could further degrade our forests.

A decentralized approach is best, however, strong institutions backed by strong community norms and practices which are often rooted in religious beliefs are vital. Care needs to be taken regarding communities where resource management has not been their way of life. Community based solutions for forests is important in shared resources especially to balance short and long term needs. Balanced policies backed by transparent leadership are key for success.

We need to re-establish community forest relationships for the future of Bhutan's forests. Community based forest management and ecosystem based interventions for generating incomes (e.g. eco-tourism, wood based industries) will be crucial in achieving this. The understanding of interdependence between people and forests must be deepened through teaching (GNH is a good vehicle to achieve this). Research targeted at impacting policy for sustainability must be prioritized. Threat based programmes need to be urgently addressed and developed, to develop alternatives (e.g. biogas) to regenerate forest resources threatened by community utilization.

The Eastern Himalayan Agenda

MYANMAR

Deforestation, livelihoods & potential of indigenous community-led forest governance & conservation

With the global push for zero deforestation, it is no longer enough to slow deforestation but also drive reforestation efforts in Myanmar. A total of 250,000 hectares of forest have to be restored annually to bring deforestation down to net zero and to effectively contribute to Myanmar's NDCs on forest cover restoration and preservation for climate change mitigation. However, caution needs to be exerted to ensure that the goals set are focused on quality restoration, rather than purely numerical target oriented - as they have tended to in the past.

Land use planning needs to be better integrated, balancing the need for infrastructure development, agriculture and livelihoods and conservation. Planned zoning is required, coupled with a high conservation value approach that designates areas of high conservation importance either as critical habitats or corridors for species. Companies sourcing produce from Myanmar need to actively push for zero deforestation across their supply chain, collaborating with communities sustainably producing crops without clearing forests for agricultural land. Enterprise development for communities is also vital - particularly support for cooperative development - enabling communities to access better markets, diversify their crops and reduce dependency on forest produce.

Better legal and policy instruments are needed to improve overall forest governance. The limitations of a livelihoods approach and community management approaches need to be recognized in governance, particularly in areas where illegal mining supplements local livelihoods. Regular monitoring is needed, along with systematic and regular enforcement from local authorities.

Different indigenous experiences and traditions in the arena of forest management need to be incorporated into existing legal and policy frameworks, rather than applying a one size fits all model of community forestry. Indigenous practices need to be officially recognized and supported, to scale up forest restoration while encouraging forest ownership and management by local communities. Participatory mechanisms need to be strengthened and enhanced through effective platforms and mechanisms for exchange and evaluation of forest restoration initiatives. Only a multi-pronged approach, recognizing the myriad different driving factors behind deforestation can allow for the development of effective solutions that enable the country to achieve net zero deforestation - and protect its standing natural assets.

Ecology is Economy- Day 1

Sessions	Speakers
Valuing Nature: Interdependence Between Ecology & Economy	Ranjit Barthakur, Founder, Balipara Foundation
Rural Futures: Creating A Bridge Between Ecology & Economy	Saurav Malhotra, Rural Futures - Co-Founder & Designer, Balipara Foundation
Leadership Address: Ecology Is Economy – Setting The Context & Possible Roadmap	• Shyam Saran, Prime Minister's Advisor for Climate Change (Rtd.) • Amitabh Kant, CEO, NITI Aayog • TV Narendran, Managing Director, Tata Steel, India • Desiree Driesenaar, External Expert - Blue Economy with European Commission • S. Ramadorai, Chairperson, Governing Board of the Tata Institute of Social Sciences • Manoj Badale, Co-Founder, Blenheim Chalcot
Indigenous Governance Towards Ecology Is Economy	• Diego Zarrate, Research coordinator, ProCAT-Colombia • Julie Stein, Co-Founder, Wildlife Friendly Network • Rathnadeep De, Managing Director, AHEAD Initiatives • Ben Powless, Documentary photographer & Writer • Ashok Khosla, Chairman, Development Alternatives
Governance, Inspiration & Business Leadership	• NG Subramaniam, COO, Tata Consultancy Services • Sanjiv Mehta, Managing Director, Hindustan Unilever Limited - India • Paul Polman, Chairman, IMAGINE • Sunil D'Souza, CEO & Managing Director, Tata Consumer Products • Manoj Narender Madnani, Founder & Group CEO - The DSA Group
From Opportunity To Reality: Catalyzing Action For Ecology In Economy	• Her Excellency Shaikha Al Dhaheri, Secretary General, Environment Agency – Abu Dhabi • Bittu Sahgal, Founder, Sanctuary Nature Foundation • Sunil Sinha, Resident Director, TATA Group, Middle East and North Africa

Valuing Nature: Interdependence Between Ecology & Economy

- Ranjit Barthakur, Chairperson, Balipara Foundation
- Saurav Malhotra, Rural Futures – Co-Founder & Designer, Balipara Foundation
- Launch - The Naturenomics™ Ecological Revolution & The Himalayan 2020

HIGHLIGHTS

Building Rural Futures

1. Post COVID-19 world offers us an opportunity to work towards a more ecologically balanced economy
2. Set the Net Zero target for 2030, not 2050 & drive through nature-based solutions
3. Rural renewal mission, not urban renewal missions, as rural areas are the true food banks for the entire world.
4. Education, healthcare, employment- are the three areas that need immediate attention. Creating natural assets will help us secure Rural Futures & deliver access to these universal basic assets
5. Need to involve indigenous youth in complete value chain of rewilding/restoring habitats.
6. Helping communities achieve more autonomy to the communities over their resources.

Valuing Nature

1. Nationwide evaluation of natural assets - valuation of natural capital, regeneratively & equitably monetizing these assets for indigenous & forest-fringe communities
2. Ecological budget - center in the economy, drive the financial budget
3. Beyond the GDP - Naturenomics™ assessment of ecology & growth
4. An ecological economics based on natural assets
5. Natural assets can drive the new economy through extensive rewilding economies, targeting indigenous & forest-fringe communities
6. Employment through green jobs in rewilding, renewables and agroforestry
7. Strengthening more grassroots communities and indigenous youth for an effective management of the existing natural capital.

Leadership Address: Ecology Is Economy – Setting The Context & Possible Roadmap

Speakers

- Shyam Saran - Prime Minister's Advisor for Climate Change (retd.)
- Amitabh Kant - CEO, NITI Aayog
- TV Narendran - Managing Director, Tata Steel
- Desiree Driesenaar - External Expert-Blue Economy with European Commission
- S. Ramadorai - Chairperson, Governing Board of the Tata Institute of Social Sciences
- Manoj Badale - Founder Partner, Blenheim Chalcot

HIGHLIGHTS

Innovation for nature

1. Investing in the concept of circular economy by repairing and refreshing the environment from where most of our resources are derived.
2. Using technology and digital networks to solve the ecological problems. Implementation of AI and ML into conservation and landscape restoration activities.

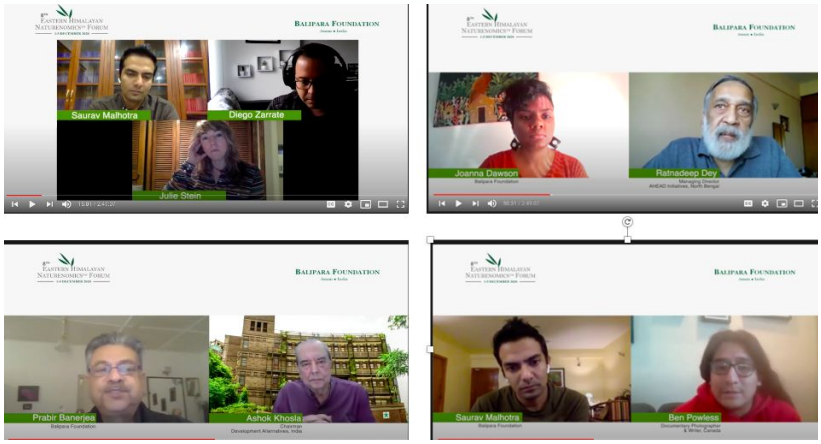
Ecology & Economy

1. Reassessment of our traditional culture in dealing with environmental challenges.
2. There is a need for a systemic design within the nature based solutions. These solutions must be based out of locally sourced material.

Environment Strategy & Planning

1. Cross sector action to end poverty, build sustainable livelihoods, finance and resources for the rural sector.
2. Mapping emissions in the value chain and planning to reduce these emissions through abatement actions and innovation for the future- mitigation and adaptation.

Indigenous Governance Towards Ecology Is Economy



Speakers

- Diego Zarrate - Research coordinator, ProCAT-Colombia, Colombia
- Julie Stein - Co-Founder, Wildlife Friendly Network, USA
- Rathnadeep De - Managing Director, AHEAD Initiatives, North Bengal
- Ben Powless - Indigenous activist, documentary photographer & writer, Canada
- Ashok Khosla - Chairman, Development Alternatives, India

HIGHLIGHTS

Leveraging civic movement

1. We should not just preserve but conserve natural resources to curb the effects of climate change. Civil societies can play a huge role in this movement by acting as a bridge between the state and communities.
2. A concerted civic movement is also required in strategizing community-driven solutions for resilient future.
3. Sharing stories and knowledge is the best way to build a more robust movement for community led resource governance.
4. Young people have to think through their large role in society- today and tomorrow.

Promoting self-governance models

1. For better management of the natural capital, one of the best ways is to strengthen the communities to develop self governance models
2. The central and state govt. should act as a catalyst in promoting local self government to take charge.
3. Decisions must be based on two main principles: scientific temper and the balance between different objectives and narratives of the social components that ensure the functioning of the territory.

Education as a conservation tool

1. Education has a critical role to play in promoting participatory governance which would help strengthen the local/indigenous communities and their efforts to conserve the local natural heritage.
2. Localization in education is very important in today's times to sensitize the newer generation about the significance of the natural assets and their role in conserving these assets.
3. Educational enterprises should be built at the community level and not in the traditional urban centers.

Governance, Inspiration & Business Leadership

Speakers

- NG Subramaniam - COO, Tata Consultancy Services, India
- Sanjiv Mehta - Managing Director, Hindustan Unilever Limited, India
- Paul Polman - Chairman, IMAGINE, UK
- Sunil D'Souza - CEO & Managing Director, Tata Consumer Products, India
- Manoj Narender Madnani - Founder & Group CEO - The DSA Group, UAE

HIGHLIGHTS

Business Unusual

1. We need to use synergy instead of scale to build value for businesses
2. Mapping emissions in the value chain and planning to reduce these emissions through abatement actions and innovation for the future- mitigation and adaptation.
3. Promoting the Porter's diamond model for creating better competitive markets.
4. Scaling up needs to be sustainable and slow to protect the integrity of the work being done.

Cross-sectoral collaborations

1. Pro-active climate resilience measures/climate change adaptation and pandemic preparedness must be framed as every country's legal obligation to ensure equitable health systems.
2. Ensure that decisions are based on two main principles: scientific temper is maintained for all forms of conservation activities.

From Opportunity To Reality: Catalyzing Action For Ecology In Economy

Speakers

- Her Excellency Shaikha Al Dhaheri, Secretary General, Environment Agency – Abu Dhabi, UAE
- Bittu Sahgal, Founder, Sanctuary Nature Foundation, India
- Sunil Sinha, Resident Director, TATA Group, Middle East and North Africa, UAE

HIGHLIGHTS

Conscious ecosystem restoration

- Active restoration of habitats for a healthy ecosystem.
- Ecology based economy would lead us onto a more equitable society
- Recognition that environmental protection is an investment in long-term economics
- Ecology must be integrated at the heart of economic aspirations

Nature resilience at risk

- Natural resilience impacted negatively through development, impairing ecosystems services ability to regenerate
- Pandemics expected to cause significant losses to global GDP - linked to the destruction of natural ecosystems, exposing people to new diseases
- Reforest & rewilding is crucial to build the social, political & economic stability the world needs to prosper

Alternative route to development

- Investments in existing infrastructures and in communities instead of building new infrastructure
- Low impact development, over large infrastructure projects, especially with a high risk of becoming stranded assets e.g. dams

CRITICAL ACTIONS FOR THE FUTURE

Cross-sectoral collaboration for better environmental and human health

Building a strong civic movement for environmental conservation

Localization of education for effective natural resource management

Investment in circular economy aimed at replenishment of natural resources

Promoting community self-governance models over centralized governance

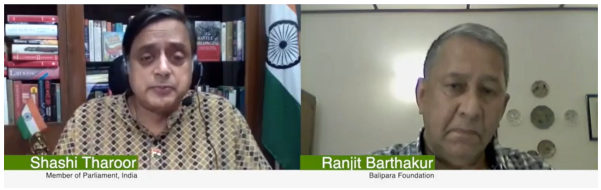
Synergy over scale for value building in businesses

Ecology is Economy- Day 2

Sessions	Speakers
Corporate Leadership Towards Sustainability	Sanjay Gupta, Country Manager & Vice President - Google India
People, Planet, Profit: A Naturenomics Policy	• Dr. Shashi Tharoor, MP • Rama Bijapurkar - Professor of Practice, IIM - Ahmedabad • Richard Hawkes - Chief Executive, British Asian Trust • Sourav Roy, Chief - CSR, Tata Steel
From Snowline To Sealine - Eastern Himalayan Natural Assets	Dietrich Schmidt-Vogt, Honorary Professor, Freiburg University
Preserving Eastern Himalaya's Natural Resources: The Way Forward	• Shri. Sarbananda Sonowal, Chief Minister of Assam • Shri. Conrad Sangma, Chief Minister of Meghalaya • Shri. Pema Khandu, Chief Minister of Arunachal Pradesh • Shri. Pu Zoramthanga, Chief Minister of Mizoram • Shri. Neiphiu Rio,Chief Minister of Nagaland • Shri N. Biren Singh, Chief Minister of Manipur • Shri Prem Singh Tamang (Golay), Chief Minister of Sikkim • Shri Jishnu Dev Verma, Deputy Chief Minister of Tripura • Shri. Parimal Suklabaidya, Minister of Fishery, Excise, Envt & Forest, Govt. Of Assam • Shri. Jayanta Malla Baruah, Assam Tourism Development Corp. • Shri Mama Natung, Minister Youth Affairs and Sports, Water Resources, Environment and Forest, Arunachal Pradesh • Shri M.L. Srivastava, IFS, Additional Chief Secretary, Govt. of Sikkim • Shri. Ranjit Singh Gill, Addl PCCF, Meghalaya • Shri Ravi Kant Sinha, PCCF & Head of Forest Force, Forest Department, Govt. of West Bengal • Shri Kailash Chandra, Director, Zoological Survey of India
Sustainable Enterprises – Case Studies From Latin America	• Paula Herrera, Friendly wool, Patagonia National Park, Chile • Emilia Lagos, Friendly wool, Argentina • Maria Abdala Zolezzi, Founder MAYDI, Buenos Aires, Argentina • Julie Stein, Executive Director and Co-founder, Wildlife Friendly Enterprise Network
Closing Comments	Her Excellency Razan Khalifa Al Mubarak, Managing Director, Environmental Agency - Abu Dhabi

Ecology is Economy - Day 2

People, Planet & Profit AND Preserving The Eastern Himalayas



Ranjit Barthakur, Founder, Balipara Foundation

In Conversation with

- Mr. Sanjay Gupta, Country Manager & Vice-President, Google India
- Shri Dr. Shashi Tharoor, Hon. Member of Parliament

Individual keynote speeches by:

- Sourav Roy, Chief CSR, Tata Steel
- Rama Bijapurkar, IIM – Ahmedabad
- Richard Hawkes, British Asian Trust
- Dietrich Schmidt-Vogt, Universitat Freiburg
- Her Excellency Razan Khalifa Al Mubarak, Managing Director, Environmental Agency - Abu Dhabi
- Shri. Sarbananda Sonowal, Chief Minister of Assam
- Shri. Conrad Sangma, Chief Minister of Meghalaya
- Shri. Pema Khandu, Chief Minister of Arunachal Pradesh
- Shri. Pu Zoramthanga, Chief Minister of Mizoram
- Shri. Neiphiu Rio,Chief Minister of Nagaland
- Shri N. Biren Singh, Chief Minister of Manipur
- Shri Prem Singh Tamang (Golay), Chief Minister of Sikkim
- Shri Jishnu Dev Verma, Deputy Chief Minister of Tripura
- Shri. Parimal Suklabaidya, Minister of Fishery, Excise, Environment & Forest, Govt. Of Assam
- Shri. Jayanta Malla Baruah, Assam Tourism Development Corporation
- Shri Mama Natung, Minister Youth Affairs and Sports, Water Resources, Environment and Forest, Arunachal Pradesh
- Shri M.L. Srivastava, IFS, Additional Chief Secretary, Govt. of Sikkim
- Shri. Ranjit Singh Gill, Addl Principal Chief Conservator of Forests, Meghalaya
- Shri Ravi Kant Sinha, PCCF & Head of Forest Force, Forest Department, Govt. of West Bengal
- Shri Kailash Chandra, Director, Zoological Survey of India

People, Planet & Profit AND Preserving The Eastern Himalayas

HIGHLIGHTS

Towards ecological economy

1. Measurement of ecological indicators
2. Post-COVID world, critical ground and opportunity for economic reset: assimilating ecology with economy
3. Need to re-imagine 'Wealth of Nations' based on nature capital
4. Hardwiring Naturenomics™ as skill among youths through educational curriculum
5. Encourage green FDI & innovation

Naturenomics™: the idea in reality

1. Regarding natural assets the same way as economic assets and ensuring equal access to all
2. Preserving a holistic landscape where people, wildlife, ecology share symbiotic relationship
3. Apply principles of economics in creating natural capital out of natural assets
4. Intersection of climate, environment, health, livelihood, education, development and sustainability needs to be studied, understood and advocated for

Corporate and political willpower

1. Prioritising green economy within government's mandate and commitment remains a challenge
2. Cross-sectoral partnerships and intergovernmental coordination needed
3. Environmental impact analysis should take into account 'triple bottom line'
4. Application of technology for mitigation & adaptation
5. Important to deliberate on ways to simplify the concept of ecological budget to be understood and intuitively accepted by all stakeholders

Putting people at the centre

1. Entrusting forests to local communities, making them part of decision-making processes and supporting them with sustainable livelihoods
2. Push for ecotourism and stabilise agriculture production(while enhancing it)
3. Need for a greater sensitivity and awareness on how daily actions could contribute to loss of valuable natural assets
4. Important to shape public opinion around the importance of prioritising green economy

Sustainability Within Enterprises

Lessons from Latin America

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

In Conversation with

- Paula Herrera, Friendly wool, Patagonia National Park, Chile
- Emilia Lagos, Friendly wool, Argentina
- Maria Abdala Zolezzi, Founder MAYDI, Buenos Aires, Argentina
- Julie Stein, Executive Director and Co-founder, Wildlife Friendly Enterprise Network,USA

HIGHLIGHTS

Sustainability in the value-chain

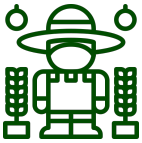
1. Adoption of non-lethal measures for protection of native fauna, welfare of animals and protection of cultivable lands (Chile) in the production
2. Application of natural, reusable biodegradable raw materials such as natural fibre, natural dye to the creation of sustainable fashion
3. Niche area since most businesses are focussed on reduction of carbon footprint
4. Entrepreneurship in sustainable production require high commitment, funding for a competitive market
5. Taking the story of sustainability to the consumer

Sustainable employment for last mile

1. Certification and traceability- hallmarks of sustainability, applied in market engagement
2. Preserving local traditions within the business production
3. Sustainable business inspiring local communities, especially young people, women for adopting these new ways of occupation
4. Important to communicate the value of traditional techniques to clients and enhance the appreciation for the traditional techniques and the communities engaged in production

Ecology is Economy - Day 2

CRITICAL ACTIONS FOR THE FUTURE



Engaging with indigenous communities and learning from their rich knowledge

Civic engagement to build political consciousness and willpower for green economy

Strengthen community based forest management and co-develop sustainable livelihood options

Government incentives and disincentives to promote green innovations in the country ; stimulus for sustainable business

Application of behavioural science to promote value and prioritisation of 'going green' among communities

Develop simplified measurement indicators to assess ecological impact that can be adopted by corporates and government

Revive traditional occupation of the Eastern Himalayan region for sustainable business and use of storytelling to connect with global clients

Ecology is Economy - Day 3

Sessions	Speakers
Green Accounting & Sustainable Nature Capital Financing	Charles Mindenhall, Co-Founder,Blenheim Chalcot, UK Mark Gough, CEO, Capital Coalition, UK Kim Schumacher, Lecturer-Sustainable Finance & ESG, Tokyo Institute of Technology Honorary, Japan Alex Robinson, Director, Nature Capital, UK Vivek Pathak, Regional Director IFC (World Bank Group),Hong Kong Adele Jones, Head of Programmes, Sustainable Food Trust, UK
From Snowline to Sealine - Eastern Himalayan Case Studies	
Bhutan: Indigenous People & Forests – A Symbiosis for Conservation & People	• Sonam Wangyel, Korea University • Om Katel, College of Natural Resources, Royal University of Bhutan • Pema Choephyel, Bhutan Trust Fund for Environmental Conservation • Jeremy Brooks, School of Environment and Natural Resources, Ohio State University, USA • Ugyen Namgyel, Bumthang Forest Division, Bhutan
Myanmar: Deforestation, livelihoods & potential of indigenous community-led forest governance & conservation	• Sein Win, Training Director, Myanmar Journalism Institute • Ngwe Lwin, Country programme head for Fauna & Flora International – Myanmar. • U Win Myo Thu, Chairman ALARM & Senior Advisor,EcoDev • Gaurav Gupta, Conservation Landscape Manager, Dawna Tenasserim Landscape • Graham Prescott, University of Bern, Switzerland
Nepal: Climate Change & Unsafe Migration	• Dr. Govind Prasad Thapa, Former Additional Inspector General of Nepal Police • Kunal Majumder, India Correspondent of Committee to Protect Journalists • Hasina Kharbhih, Impulse NGO Network • Saurav Malhotra, Balipara Foundation

Ecology is Economy - Day 3

From Snowline to Sealine - Eastern Himalayan Case Studies

Sessions	Speakers
Meghalaya: Floral Diversity in the West Garo Hills - Through the Ethnobotany lens	• Swapnil Tembe, IAS, Deputy Commissioner & District Magistrate East, Garo Hills District • Barnali Dutta, Balipara Foundation • Binu Mathew, Rural Development and Agricultural Production, NEHU, Tura • Prof. C. Perinba Suresh, Department of Horticulture, NEHU, Tura • Naldarine Marak, Department of Forestry, Mizoram University
Sikkim: Green energy posing potential threat of green depletion	• Amit Patro, Sikkim Express • Dr Mahendra P Lama, Member of Niti Aayog, Professor at JNU • Gyatso Lepcha, General Secretary of Affected Citizens of Teesta • Mayalmith Lepcha, President of the Sikkim Indigenous Lepcha Tribal Association • Himangka Kaushik, Research Analyst at TERI School of Advanced Studies
Tripura: Restoring river ecosystem: Community Approach towards preserving ecological diversity	• Samrat Goswami, Assistant Professor at Dept of Rural • Management & Development, Tripura University. • Selim Reza, Tripura Bamboo and Cane Development Centre • Pawan Kaushik, Regional Director At Centre For Forest- • Based Livelihoods & Extension, Tripura • Biswendu Bhattacharjee, Journalist
Nagaland: Community for conservation - A transition from community into hunting	• Siddharth Edake, The Energy and Resources Institute (TERI) • Bano Haralu, Nagaland Wildlife and Biodiversity Conservation Trust • Ivan Jimo, Tizu Valley Biodiversity Conservation and Livelihood Network • Nuklu Phum, Sam Hegginboton University for Agriculture Technology and Science

Ecology is Economy - Day 3

From Snowline to Sealine - Eastern Himalayan Case Studies

Sessions	Speakers
Arunachal Pradesh: Mindful Tourism Towards generating livelihoods opportunities	• Shyamkanu Mahanta, Social Entrepreneur • Oken Tayeng, Founder, Abor Country Travels & Expeditions • Jambey Dondu, President of Environmental Protection Society, Tawang • Koj Rinya, IFS,Member Secretary, Arunachal Pradesh State Pollution Control Board
Mizoram: Community engagement & scientific approach to re-invent shifting/jhum cultivation	• Bhupesh Chaudhary, IAS, Addl. Secretary Communications technology (ICT) • Kalpana Sarathy, Professor & Dean,Tata Institute of Social • Sciences, Guwahati • Jaydev Mandal, Assistant Professor,Department of Zoology, Madhab Choudhury College • John Zothanzama, Mizoram University and Mizoram Sustainable Development Foundation • C. Lalengzama, Assistant Professor, Department of Social Work, Mizoram University
Bangladesh: Mangrove Ecosystem: Habitats, Communities & Livelihoods	• Md. Jahidul Kabir, Forester • Mohammad Firoj Jaman, Department of Zoology, University of Dhaka • Md Niamul Naser, Chairman & Professor, Department of Zoology, University of Dhaka • Abdullah Harun Chowdhury, Professor, Department of Environmental Science, Khulna University • Md Noor Alom Sheikh, Freelance journalist & environmental activist • Zabed Hossain, Professor, Department of Botany University of Dhaka
Manipur: Lakes & Wetlands: 'Lifeline of Manipur', losing life due to increased human activity	• Dr Dhrubajyoti Sahariah, Guwahati University • T Brajakumar, Director, Directorate of Environment & Climate Change • Salam Rajesh, Member, Manipur Wetland Authority • Prof Abhinandan Saikia, TISS - Guwahati

Green Accounting and Sustainable Nature Capital Financing

Speakers

- Charles Mindenhall Blenheim Chalcot
- Mark Gough, CEO, Capitals Coalition
- Kim Schumacher, Hon. Research Associate, Tokyo University
- Alex Robinson, Director, Nature Capital
- Vivek Pathak,, IFC Regional Director for East Asia & Pacific
- Adele Jones, Sustainable Food rust

HIGHLIGHTS

Global Data, Incentivized Management

1. The need to synchronize agricultural practices across the globe is growing- you can only manage what you measure
2. Designing state policies that mandate annual sustainability assessments and incentivized farmers based on a harmonized framework can be adopted.

Climate Change & Accountability

1. The impact of climate change is harsher on developing countries like Nepal
2. Need to reconceptualize funding for 'green activities'- shift from CSR to ecotourism and forestry tourism.
3. Urgent need to balance short term economic development and long term environment protection

Decentralized Leadership

1. Community based resource management is dependent on good policies and leadership
2. Continual maintenance and adaptation is the need for the hour
3. Learning from other success stories that are in practice now

CRITICAL ACTIONS FOR THE FUTURE

Issuance of matrix and framework for farmers across the globe to maximize natural capital measurement

Promoting eco-friendly hotels and ecotourism as a reliable, accessible go-to option

State specific incentivization programs for green and sustainability based practices

Bhutan Regional Naturenomics™ Forum

Indigenous People & Forests – A Symbiosis for Conservation & People

- Sonam Wangyel, Korea University
- Om Katel, College of Natural Resources, Royal University of Bhutan
- Pema Choephyel, Bhutan Trust Fund for Environmental Conservation
- Jeremy Brooks, School of Environment and Natural Resources, Ohio State University, USA
- Ugyen Namgyel, Bumthang Forest Division, Bhutan

HIGHLIGHTS

Go Local!

1. Supporting diversification of products is a new avenue for employment generation.
2. Promoting cottage industries and localized initiatives

Participatory Solutions

1. Empowering local people for governance and equip locals to utilise natural resources
2. Adopting community resource management instead of prevalent individualistic approach
3. Engaging community stakeholders in decision making and policy design

CRITICAL ACTIONS FOR THE FUTURE

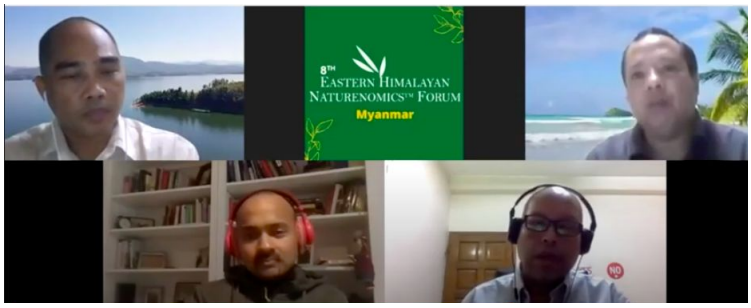
Funding threat analysis-based research projects to integrate science in policy making for jhum

Monetary compensation for environmental services, under sustainable forest management

Using local practices and cultural symbols to invoke the importance of conserving natural resources

Myanmar Regional Naturenomics™ Forum

Deforestation, livelihoods & potential of indigenous community-led forest governance & conservation



- Sein Win, Training Director, Myanmar Journalism Institute
- Ngwe Lwin, Country programme head for Fauna & Flora International – Myanmar.
- U Win Myo Thu, Chairman ALARM & Senior Advisor,EcoDev
- Gaurav Gupta, Conservation Landscape Manager, Dawna Tenasserim Landscape
- Graham Prescott, University of Bern, Switzerland

HIGHLIGHTS

Management Frameworks

1. Establish synchronized forest management frameworks internationally
2. Development of mechanisms for financial aid like ODA to strengthen policy development and implementation

Collective Action

1. Negotiation with indigenous communities to foster a spirit of collective accountability
2. Awareness campaigns for knowledge dissemination to ensure spread of relevant information among locals
3. Equipping NGOs and civil society organizations to provide support to local communities

Environmental Policies

1. Stronger assessment and use of high biodiversity value frameworks
2. Effective net zero NDCs focused on quality, not quantity
3. Balance business & development interests with community & biodiversity interests & needs
4. Controlled formalization & regulation of gold mining

CRITICAL ACTIONS FOR THE FUTURE

Developing sustainable and practical policies that fit the contextual landscape of the country

Stronger, clearer land rights policies to promote community forestry

Integrated land use & infrastructure planning using a high biodiversity conservation value framework

Nepal Regional Naturenomics™ Forum

Climate Change and Unsafe Migration

- Dr. Govind Prasad Thapa, Former Additional Inspector General of Nepal Police
- Kunal Majumder, India Correspondent of Committee to Protect Journalists
- Hasina Kharbhih, Impulse NGO Network
- Saurav Malhotra, Balipara Foundation

HIGHLIGHTS

Ecology and Economy

1. Promotion of 'Green Jobs' to promote sustainable practices and economic growth
2. Over extractive needs of urban hot spots need to be contained
3. Studies show that humans improve biodiversity

Vulnerability Analysis

1. Recognition of the impact of climate change especially in developing countries like Nepal urgent
2. Economic deprivation, ecological imbalance and human trafficking are closely interlinked
3. Unsafe migration because of lack of opportunities at source

Community Leadership & Action

1. Promotion of community skills and leadership by community organizations
2. Involvement of indigenous youth as ambassadors and leaders for successful execution of interventions
3. Replication the learning of the conservation processes used in community owned lands

CRITICAL ACTIONS FOR THE FUTURE

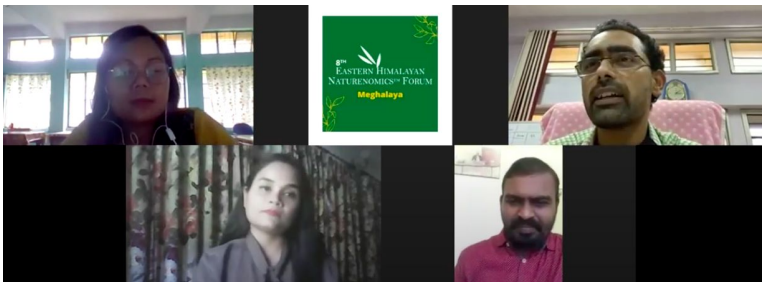
Creating opportunities for locals to utilize indigenous resources instead of being forced to migrate

Agroforestry incentives can be disbursed till the forest is ready for harvesting- creating a balance

Facilitating the creation of opportunities for indigenous youth

Meghalaya Regional Naturenomics™ Forum

Floral Diversity in the West Garo Hills: Though the Ethnobotany Lens



- Swapnil Tembe, IAS, Deputy Commissioner & District Magistrate East, Garo Hills District
- Barnali Dutta, Balipara Foundation
- Binu Mathew, Rural Development and Agricultural Production, NEHU, Tura
- Prof. C. Perinba Suresh, Department of Horticulture, NEHU, Tura
- Naldarine Marak, Department of Forestry, Mizoram University

HIGHLIGHTS

Impact Analysis

1. Funding research projects on alternative cultivation and prevention of top soil erosion due to existing practices.
2. Find alternative livelihoods for locals involved in the rubber and areca nut plantations in the region as they are the primary source of deforestation and soil erosion.

Collaborative Paths

1. World Bank to provide aid for community led landscape management
2. Community led decisions to preserve ecology and provisions for funds for the same
3. Skill training and education to be provided to the indigenous community.

Economic Practices for Rural Development

1. Encouraging horticulture to increase rural incomes
2. Promotion of lesser known medicinal plants as they in turn contribute to resilient ecosystem
3. Marketing of medicinal plants of development in the rural sector

CRITICAL ACTIONS FOR THE FUTURE

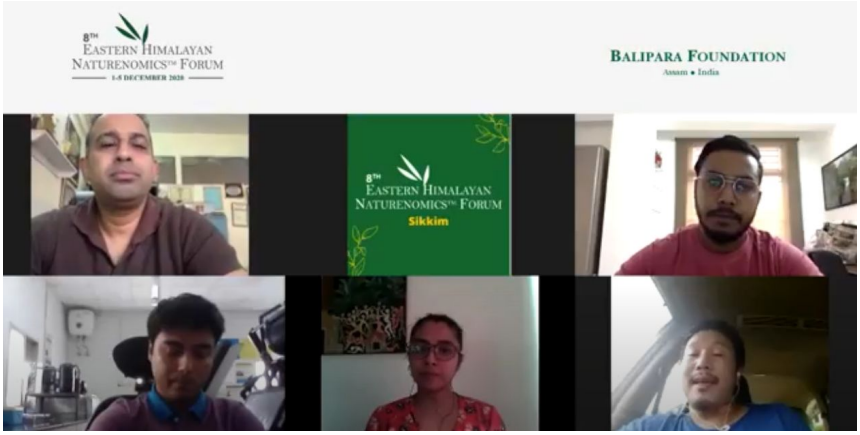
Ensuring access to affordable and high quality skill training and education

Promote & enhance local herbal products using traditional ecological knowledge

Conducting proper research so as to build a resilient, resourceful ecosystem

Sikkim Regional Naturenomics™ Forum

Green energy posing potential threat of green depletion



Amit Patro, Sikkim Express
In Conversation with

- Dr Mahendra P Lama, Member of Niti Aayog, Professor at JNU
- Gyatso Lepcha, General Secretary of Affected Citizens of Teesta
- Mayalmith Lepcha, President of the Sikkim Indigenous Lepcha Tribal Association
- Himangka Kaushik, Research Analyst at TERI School of Advanced Studies

A conversation curated in partnership with the Ashoka Trust for Research in Ecology & Economy (ATREE)

HIGHLIGHTS

Changing Dynamics, Development & The Role of Policy

1. The built approach of cultural ecology and technical aspects need to be incorporated with impacts of climate change.
2. Remodeling of the industry of hydro-power to navigate through cohesion of various verticals of projects alongside socio-economic impacts on the indigenous communities
3. People need to accept and voice the need to support realistic means and ways of development

Multidimensional planning

1. Incorporating cultural perspectives - the Teesta acts as a cultural highlight and identity of the indigenous communities of Sikkim
2. High need to understand the carrying capacity of the river systems
3. The development of projects (e.g. mega hydropower dams) need planning and no planning would be a sign of a downtrodden country or state
4. Cohesion in planning critical to dismantling truncated planning & narrow visions

CRITICAL ACTIONS FOR THE FUTURE

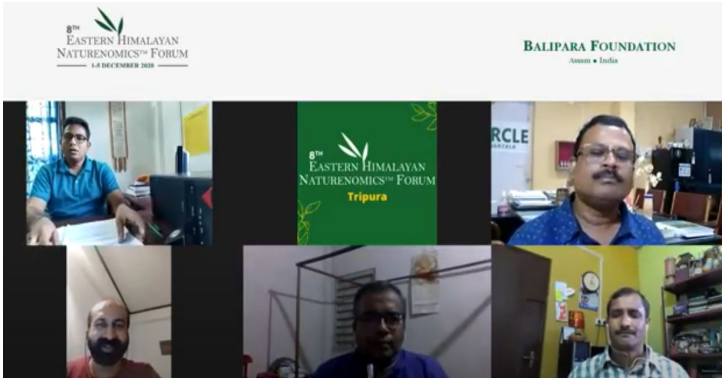
Effective activism to positively impact communities and bring about a sense of ownership

Level up the aspects of advocacy for restoration and conservation

Build on the existing ecosystem services of the Himalayas

Tripura Regional Naturenomics™ Forum

Restoring river ecosystems: Community Approach towards preserving ecological diversity



Biswendu Bhattacharjee
In Conversation with

- Samrat Goswami, Assistant Professor at Dept of Rural Management & Development, Tripura University
- Selim Reza, Tripura Bamboo and Cane Development Centre
- Pawan Kaushik, Regional Director At Centre For Forest- Based Livelihoods & Extension, Tripura

HIGHLIGHTS

River pollution and restoration

1. The processes of river pollution and control should be multifaceted
2. River conservation is a fundamental duty and must be taken into consideration as a major ecosystem service.
3. There is an urgent need for community based management for riverine systems.

Awareness programs and increase membership

1. Systemize and incentivize actions to build on favorable behavior.
2. Build on partnerships with the local people for a better perspective on conservation methods.

Patterns of water usage

1. Systemize the usage of water based on varied communities of Tripura to understand gradients and variables of pollution and pollutants in the marked out geography.
2. Ownership to be given to the local communities through various programs and intervention models to carry out activities and incentivize the same.

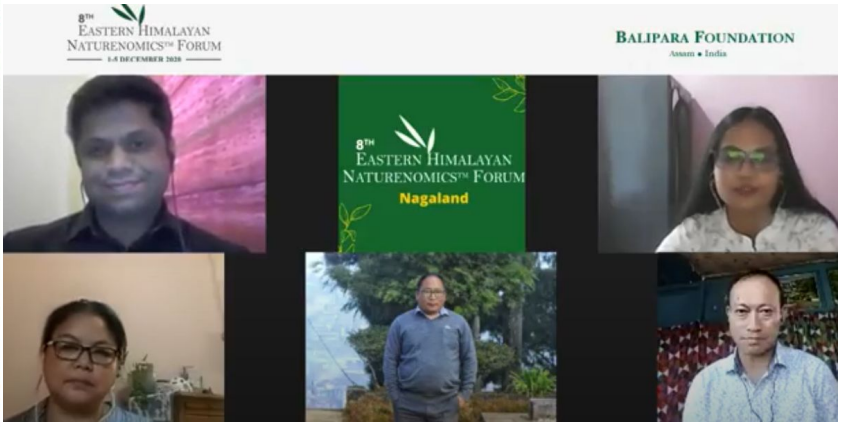
CRITICAL ACTIONS FOR THE FUTURE

Create buffer zones based on locality wise water lengths with regard to the water bodies and riverine systems in Tripura, particularly in upper catchment areas

Increase awareness programs in for rural & urban communities – to transfer the ownership of reducing levels of pollution in varied water bodies

Nagaland Regional Naturenomics™ Forum

Community for conservation: A transition from community into hunting



Siddharth Edake, The Energy and Resources Institute (TERI)
In Conversation with
- Bano Haralu, Nagaland Wildlife and Biodiversity Conservation Trust
- Ivan Jimo, Tizu Valley Biodiversity Conservation and Livelihood Network
- Nuklu Phum, Sam Hegginboton University for Agriculture Technology and Science

HIGHLIGHTS

A Community Perspective to Conservation

1. There needs to be a holistic approach that is looked into by those who benefit out of the ecosystem services to create a sense of balance.
2. Inclusion of elderly members to look into management of existing natural resources and identifying the importance of species.

Interdependency is key

1. Landowners and the civil society have played a major role to make the right intervention – people have realized that there is no compensation for conservation.
2. The inclusion of religion in propagation of conservation.

Microfinance for community conservation

1. Use of fallow land and jhum land for alternate means of generating revenue

Workshops in the forest

1. To understand the importance of jhum alongside surveys to develop a mechanism to "shoot with cameras and binoculars" along with an incentive through rewards for spotting new species

CRITICAL ACTIONS FOR THE FUTURE

Revenue generation for biodiversity conservation

Sustainable development of connectivity & linkages to build the support infrastructure for alternative livelihoods such as ecotourism

Arunachal Pradesh Regional Naturenomics™ Forum

Mindful Tourism Towards generating livelihoods opportunities

Shyamkanu Mahanta, Social Entrepreneur
In Conversation with

- Oken Tayeng, Founder, Abor Country Travels & Expeditions
- Jambey Dondu, President of Environmental Protection Society, Tawang
- Koj Rinya, IFS,Member Secretary, Arunachal Pradesh State Pollution Control Board

HIGHLIGHTS

Mindful Tourism, Biodiversity and Policy

1. . Scientific backing and policies can have positive impacts on the regulatory and recreational services of the forest.
2. Economic benefits and incentives gets affected by the on-ground communities.

Community based ecotourism

1. Role of the state government plays a vital role in the upliftment of the local economy through eco-tourism
2. Research needs to be done to promote species that are specific to the region thus leading to ethnobotanical underpinnings

Need for outreach techniques

1. The need for outreach and marketing methods to increase flow of tourists who need to know of the local biodiversity – both medicinal plants, flowering plants and other types of species. This will become a method of employment generation.

CRITICAL ACTIONS FOR THE FUTURE

Collaborations and partnership alongside capacity enhancement

Trust building between organizations and confidence on the local economy to take forward continued traditional practices

Communities become the torch bearers of conservation through mindful tourism

Mizoram Regional Naturenomics™ Forum

Community engagement & scientific approach to re-invent shifting/jhum cultivation

Kalpana Sarathy, TISS
In Conversation with

- Bhupesh Chaudhary, IAS, Addl. Secretary Communications Technology (ICT)
- John Zothanzama, Mizoram University & Mizoram Sustainable Development Foundation
- Jaydev Mandal, Madhab Choudhury College
- C. Lalengzama, Dept. of Social Work, Mizoram University

HIGHLIGHTS

Stronger Science, Better Data

1. Existing policy is built on derivative claims from the 1970s not current, hard data
2. Current data suggests jhum cycles are 7-10 years & that this is enough for regeneration
3. Solid science & data is needed to drive jhum policy for greater sustainability

Participatory Solutions

1. Land privatization has led to greater landlessness - weakening incomes
2. Community stakeholders have to be involved across decision-making & policy design
3. Solutions have to be farmer friendly & build on existing traditions for greater adoption

Developing Shifting Cultivation

1. Tried & tested technology and solutions, adapted for local context
2. Systematize local markets, creating market access, effective transport links
3. Invest in developing sustainable practices (e.g. MISALT) in shifting cultivation

CRITICAL ACTIONS FOR THE FUTURE

Science & evidence-based conversations & policymaking for jhum

Incorporate local practices & knowledge in jhum development

Effective land management to minimize landlessness and maximize sustainability

Bangladesh Regional Naturenomics™ Forum

Mangrove Ecosystem: Habitats, Communities & Livelihoods

Zabed Hossain, University of Dhaka
In Conversation with

- Md. Jahidul Kabir, Forester
- Mohammad Firoj Jaman, University of Dhaka
- Md Niamul Naser, University of Dhaka
- Abdullah Harun Chowdhury, Khulna University
- Md Noor Alom Sheikh, Freelance journalist & environmental activist

HIGHLIGHTS

Risks & Challenges

1. Natural - rising forest floor, top soil erosion, increasing salinity
2. People - overharvesting of natural resources, deforestation, poisons in fishing
3. Industrial - oil spills, developmental pressures, air pollution

Better Governance

1. Streamlining & cross-department coordination inside & in peripheries of Sunderbans
2. Ensure communication & management between departments
3. Strategic environment planning with provisions for alternate livelihoods

Transboundary Collaboration

1. Dialogue & collaboration across watershed countries
2. Cooperation with India for watershed management & release of freshwater
3. Cross-border forest governance for ecosystem integrity & health

CRITICAL ACTIONS FOR THE FUTURE

Endowment fund to sustainably support fringe & periphery communities

Community-based management measures & institutions

Culturally relevant alternative livelihoods that protect the Sunderbans

Manipur Regional Naturenomics™ Forum

Lakes & Wetlands: the 'Lifeline of Manipur', losing life due to increasing human activities

Dhrubajyoti Sahariah, Guwahati University
In Conversation with
- T Brajakumar, Directorate of Environment & Climate Change
- Mr Salam Rajesh, Manipur Wetland Authority
- Abhinandan Saikia, TISS - Guwahati

HIGHLIGHTS

Thinking in Ecosystems

1. Loktak lake is not a single water body but a cluster of wetlands
2. Watershed management approach to allow ecosystem processes to flow smoothly
3. Multi-stakeholder governance drawing in global expertise

Traditional Ecological Knowledge

1. Synchronize indigenous knowledge & TEK in wetlands policy, protection & management
2. Consultation with communities through bottom-up approaches including their knowledge
3. Understand trajectory of wetlands alongside communities

Building Adaptive Capacity

1. Enhancement of awareness regarding wetlands importance & protection
2. Low-carbon, low-impact infrastructure over big hydropower projects
3. Common platforms for sharing knowledge across groups & communities

CRITICAL ACTIONS FOR THE FUTURE

Scientific watershed management system

Monitor & control tourist capacity to minimize impacts on ecosystems

Work with local cultures & traditions e.g. developing jhum sustainably or living museums

Ecology is Economy - Day 4

Sessions	Speakers
Ecology Is Economy: Mindful Tourism	• Shobha Mohan, Founder Partner, RARE India • Husna-Tara Prakash, Co-Founder & Managing Director, Glenburn Tea Estate & Boutique Hotel • Joanna Van Gruisen, Co-Founder - The Sarai at Toria • Anna Behm Masozera, Director, International Gorilla Conservation Programme • Jamie DiChaves, Sustainability & Pollution Control Officer, El Nido Resorts, Philippines
Keynote: Reconciling Ecology & Economy	• Lord Nicholas Stern, Grantham Research Institute of Climate Change & Environment, LSE
Towards A New Regenerative Green Economy: Challenges And Opportunities	• Nitin Pandit, Director, ATREE • Nandan Nawn, TERI School of Advanced Studies • Rajkamal Goswami, Research Associate, ATREE • Kanchan Chopra, Former Director, Institute of Economic Growth, Delhi, India • Aneeta Dutta, Assistant Director, Rashtriya Gramin Vikas Nidhi
Role Of Global Conservation Diplomacy In Realizing In Nature Capital Values	• Pradeep Banerjee, Advisor to Hindustan Unilever Limited, India • Vivek Saxena, Country representative, IUCN India • Ankur Gupta, General Manager - Middle East & North Africa,Tata Sons Private Limited
Keynote: Mushrooms & Livelihoods	• Catherine Marciniak, Videographer • Stephen Axford, Fungi Photographer
Keynote: Sustainability Is Vital	Padmashree Ajeet Bajaj - Managing Director, Snow Leopard Adventures
Launch Of Co-creation Model – Rural Futures & Impulse Ngo Network Partnership	• Karma Paljor, Journalist and Television News Anchor • Hasina Kharbhih, Founder & Chairperson, Impulse NGO Network • Saurav Malhotra, Designer-Rural Futures,Balipara Foundation
Closing Comments: Ecology Is Economy	His Excellency Vikram Doraiswami, High Commissioner of India to Bangladesh

Ecology is Economy: Mindful Tourism

Shobha Mohan, Founder partner - RARE India
In Conversation with

- Husna-Tara Prakash - Co-Founder & Managing Director of the Glenburn Tea Estate & Boutique Hotel, India
- Joanna Van Gruisen - Co-Founder, The Sarai at Toria, India
- Anna Behm Masozzera - Director of the International Gorilla Conservation Programme, Rwanda & USA
- Jamie DiChaves - Sustainability & Pollution Control officer, El Nido Resorts, Philippines

HIGHLIGHTS

Tourism for good

1. Respect proximity with nature and wildlife and the rules of conservation - minimize negative impacts & footprints end to end
2. Education & awareness through tourism - leave the traveller transformed, with their lifestyle choices and future mindful tourism opportunities

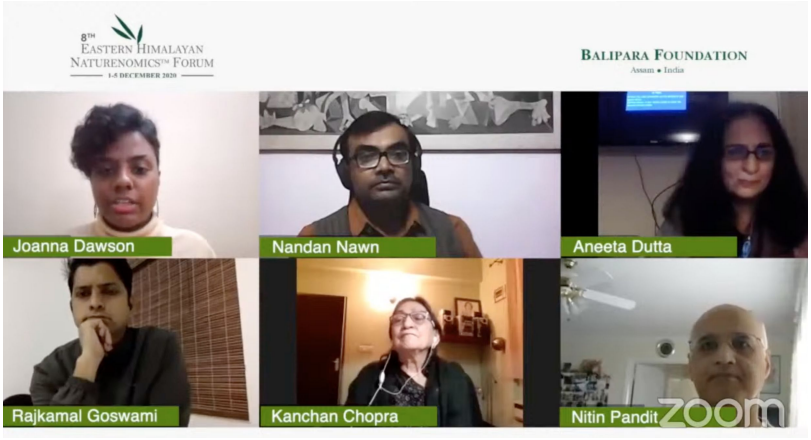
Driving change

1. Tourism should be used as a driver for conservation and source of livelihood for small farmers, in terms of compensation, while reducing dependence on the forest.
2. Conservation and civil society organisations need more partnerships and investments from the private sector and government bodies.

CRITICAL ACTIONS FOR THE FUTURE

Curated public content consumer messaging & engagement platforms both online & offline to create better understanding and expectations for mindful tourism

Towards a New Regenerative Green Economy: Challenges and Opportunities



Nitin Pandit, Director - ATREE, USA
In Conversation with

- Nandan Nawn - TERI School of Advanced Studies, India
- Rajkamal Goswami, Research Associate, ATREE, India
- Kanchan Chopra, Former Director, Institute of Economic Growth, Delhi, India
- Aneeta Dutta, Assistant Director, Rashtriya Gramin Vikas Nidhi, India

HIGHLIGHTS

Transforming Livelihoods

1. Income and livelihood should be realised by generating a sustained demand, to find ways to generate the demand in the wake of reverse migration to rural areas, especially since COVID-19.
2. Reinstating technology - bringing people and jobs back into the centre of biodiversity and agricultural change

Transforming Systems

1. Collectivisation (such as Amul Co-operative) is an essential requirement to generate a bio-economic model, but poses a challenge in replication, demand and equitable growth in this region
2. For transition from skill development to entrepreneurship development, tweaking the scope available (like MNREGA network of operation) will help ecological restoration enable livelihood management.

CRITICAL ACTIONS FOR THE FUTURE

A bottoms-up institutional and grassroots synergy approach to hear the aspirations of the people, to enable them to access their rights and entitlements

Sustainable agricultural interventions with a to and fro between top-down and bottoms-up approach, towards employment and productivity

Role of global conservation diplomacy in realising in nature capital values

Balipara Foundation
In conversation with

- Vivek Saxena, Country representative, IUCN India
- Ankur Gupta, General Manager - Middle East & North Africa,Tata Sons Private Limited
- Pradeep Banerjee, Advisor to Hindustan Unilever Limited, India

HIGHLIGHTS

The Role of Businesses

1. Businesses have to take responsibility of the impact on the planet, along with profitability - survival will depend on accounting for ecological impact
2. Must take leadership in sustainable sourcing, large-scale impact and responsible and enlightened self-interest.
3. Value and invest in long-term ecological impact that affect consumer apathy and perceived affordability of nature-friendly products

Changing Awareness

1. Mega-trends of today - accelerations in populations, mobility, technology, capital mean that the trust in existing institutions will erode because of un-sustainability
2. Eastern Himalayas is very critical to the rest of the region because of the significance of water resources and its management
3. Key levers of changes in mindsets around nature assets - ecological warning signs, government regulation, corporate stewardship supported by innovation and technology, shift in consumer behaviour

CRITICAL ACTIONS FOR THE FUTURE

Framework for integration of evolving economic models for different geographic regions

Consumer-driven economic, social or regulatory incentives

Product innovation that consumes less resources/relies on green resources

Regulatory framework & waste management through govts & organizations

Launch of Co-Creation model

Rural Futures and Impulse NGO Network partnership

Karma Paljor, Journalist & News Anchor, India
In conversation with

- Hasina Kharbhih - Founder & Chairperson, Impulse NGO Network, India
- Saurav Malhotra - Rural Futures, Designer & Co-founder

HIGHLIGHTS

Degradation & Migration

1. Overexploitation and overconsumption in urban hotspots have led to climate crisis.
2. Environmental degradation leads to many challenges in frontline indigenous communities of the eastern Himalayas, driving the lack of access to basic social assets (eg. leading to increase in human trafficking).

Transformative Opportunities

1. Richness of ecosystem can be a revenue as an environmental resource.
2. Local green economies create aspirational rural areas, especially after COVID-19 crisis and reverse migration.
3. Agroforestry, nursery and forest creation and increasing biodiversity are linked directly to the prosperity of entrepreneurs of green initiatives in rural areas

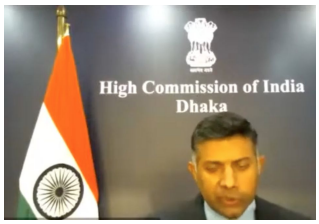
CRITICAL ACTIONS FOR THE FUTURE

Creation of green jobs for reverse migrants and growth of environment

Co-creation model for collective and local leadership and empowers indigenous communities with economic livelihood

Policy recommendations blueprint for Eastern Himalayan region

Keynote Addresses on Ecology is Economy - Day 4



- Lord Nicholas Stern, LSE - Reconciling Ecology & Economy, the Net Zero perspective
- Catherine Marciniak & Stephen Axford - Mushrooms & Livelihoods
- Padmashree Ajeet Bajaj - Sustainability is Vital
- His Excellency Vikram Doraiswami - Closing comments to the Eastern Himalayan Naturenomics™ Forum 2020

HIGHLIGHTS

The Critical Present

1. Limits of environmental capacity to deal with anthropomorphic impact has been reached
2. To stabilise temperatures, we have to stabilise the global concentration of greenhouse gases
3. Diversity and interconnection in ecosystems of plants, wildlife and fungi in the northeast region of India can be useful to people in forest fringe communities

Road to the Future

1. Management of land and forests among small holders in the Eastern Himalayan region for ecosystems, rivers and its communities futures
2. Biodiversity of fungi is of great potential use to human beings, for livelihood as well as future of the forest
3. Sacred Groves of Meghalaya should be an example of how people regard themselves as custodians of the forest, and being an integrated part of the natural ecosystem

CRITICAL ACTIONS FOR THE FUTURE

Reexamine the costs of impacts, with help of government and people's movement into pricing mechanisms of businesses

Sub-regional approach to development, trade and harnessing of resources

Knowledge-sharing of impact of activities, technologies, systems of productions

Balipara Foundation Awards 2020

13 Recipients Across 7 States and 3 Countries

Annual Balipara Foundation Award
Trinity Saioo
Meghalaya, India

Annual Balipara Foundation Award
Association For Environmental Preservation
Mizoram, India

Naturenomics™ Award
Seno Tsuhah
Nagaland, India

Naturenomics™ Award
Jorjo Tana Tara
Arunachal Pradesh, India

Balipara Foundation Awards 2020

13 Recipients Across 7 States and 3 Countries

Green Guru Award
Akshar Foundation
Assam, India

Green Guru Award
Nosang Limboo
Sikkim, India

Food For the Future Award
Parimal Das
Tripura, India

Nature Conservancy Award
Arannayk Foundation
Dhaka, Bangladesh

Balipara Foundation Awards 2020

13 Recipients Across 7 States and 3 Countries

Forest Rangers and Guards Award
Gyem Tshewang
Bhutan

Lifetime Service Award
Tin Tin Saw
Myanmar

Lifetime Service Award
Dr. Parimal Chandra Bhattacharjee
Assam, India

Special Recognition: Indigenous Leadership Award
Komison Mili
Assam, India

Eastern Himalayan Naturenomics™ Forum 2020 - Outreach

Communications through the **Eastern Himalayan Naturenomics™ Forum 2020** focused on bringing together a global network of different communities, partners, thought leaders, businesses and institutions to encourage a critical debate on the opportunity to transition to an interdependent economy that centres ecology in the Eastern Himalayas.

Embracing the new normal and the acceleration towards the digital gave the Balipara Foundation the unique opportunity to nurture, grow and engage not only with our key audiences, but with a broader global community through our **first fully virtual forum**, in which we explored the principles of Naturenomics™ and Rural Futures through stakeholders and experts from around the world.

THE AUDIENCE

- Naturalists
- Policy Makers
- Research Institutions
- Students
- Development Sectors
- Conservationists

The Reach On Social Media

Reach-761K

Reach-91.2K

Reach-1,06,600

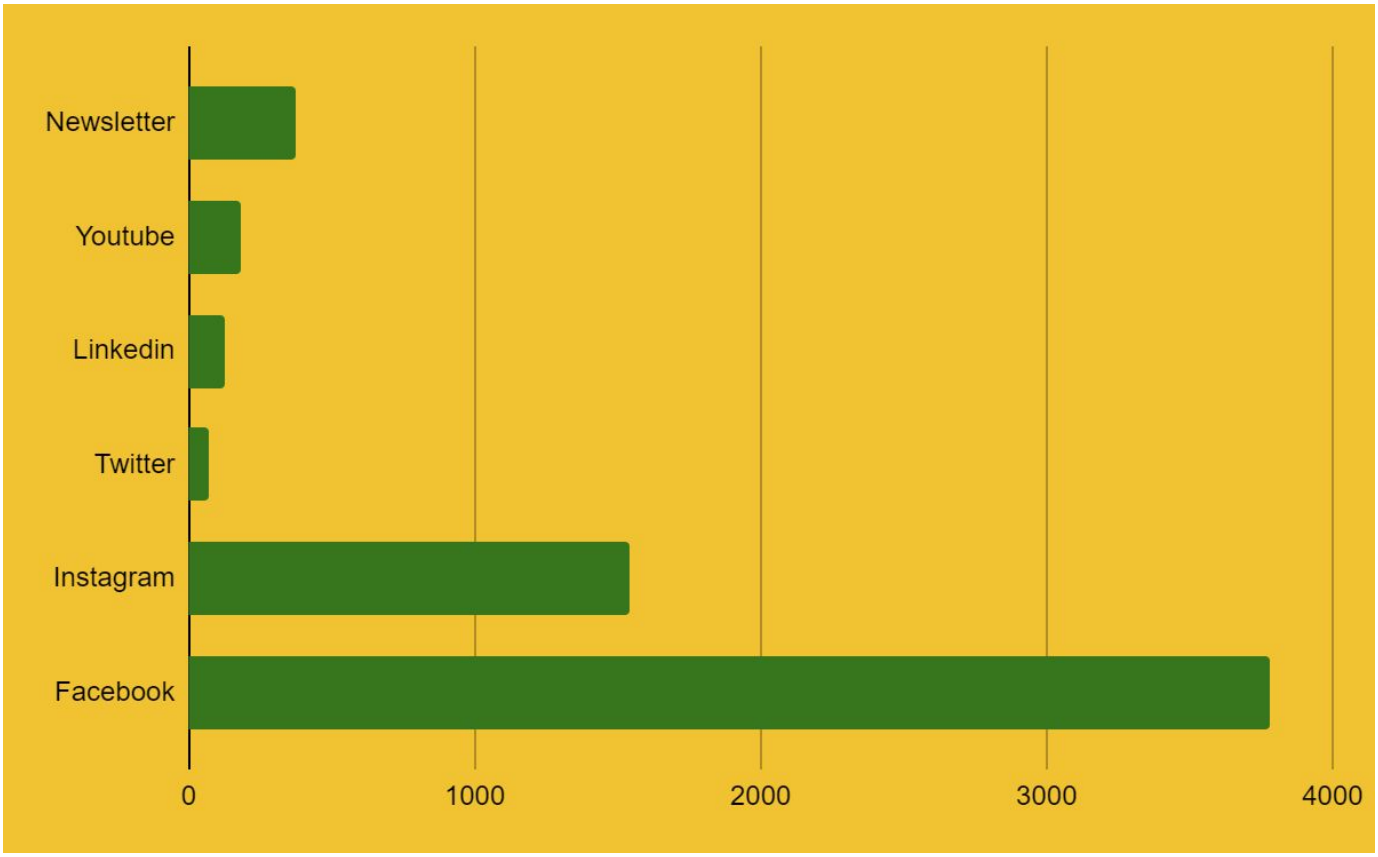
Reach-4.6K

Reach-1,734

Reach-1500

THE COUNTRIES

OUR FOLLOWER INCREASE



303 Connections | 2835 Followers | 2003 Followers | 27,136 Followers | 452 Subscribers | 1500 Subscribers

ENGAGEMENT POSTS

Announcements

Speaker Introductions

Countdowns

Promotional videos

ENGAGEMENT POSTS

Promotional video on NewsX

Promotional Ticker on NewsX

ENGAGEMENT POSTS

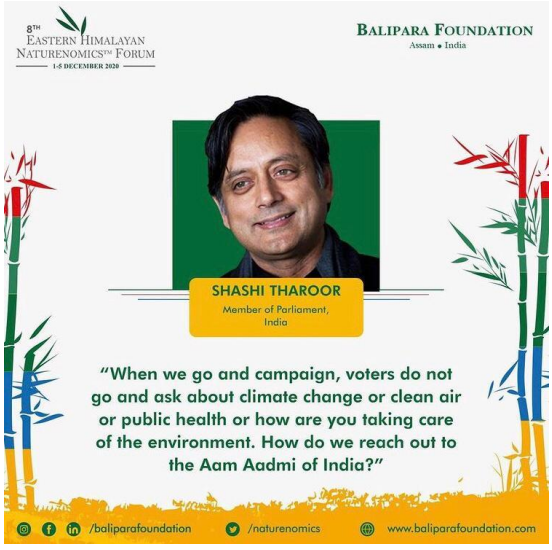
Balipara Foundation @naturenomics · Dec 4

The tribal people know more about the flora & fauna than the city people, they can see & tell whether a mushroom is edible or poisonous. So they have a greater understanding of the biodiversity. - Stephen Axford, Fungi Photographer, #Australia at #EHNF2020 on @NewsX

Balipara Foundation @naturenomics · Dec 4

The more biodiversity in a forest, the more will be get to know more because due to biodiversity everything is connected with each other. In the ecosystem everything is connected -Catherine Marciniak, Videographer, Australia at #EHNF2020 on "Mushroom and Livelihoods" @NewsX

Live Tweets



Speaker Quotes

PARTNERS & SPEAKERS ENGAGEMENT

NewsX @NewsX · Nov 30

#EcologyIsEconomy | The Natural Wealth of Nations is nothing but the ecological assets that we have: Ranjit Barthakur, Founder, Balipara Foundation speaks to #NewsX Watch the virtual edition of 8th #EHNF2020, 1st-5th December on #NewsX @naturenomics

5 54

Impulse Empower @Impulse_Empower · Dec 4

@HasinaKharbhih was travelling through #COVID19 #Floods to understand how it is impacting the people on ground, says @Karma_Paljor @EastMojo the 8th edition of the Eastern Himalayan @naturenomics Forum @UNHCRLivelihood @AmyDiedrichJCU @rightlivelihood #SDGs #GlobalGoals #Farmers

Eclectic Northeast @eclectictweets · Dec 1

Balipara Foundation's 8th Eastern Himalayan Naturenomics Forum 2020 & the 1st virtual edition of 'Ecology is Economy' is currently underway and will continue till Dec 5 @naturenomics #Assam #NortheastIndia

1

CMO Meghalaya @CMO_Meghalaya · Dec 2

Hon'ble Chief Minister of #Meghalaya, Sh. @SangmaConrad addresses the 8th Himalayan Naturenomics Forum organised by @naturenomics.

Watch Live:

EHNF 2020 , Day - 1
youtube.com

Richard Hawkes @R_Hawkes · Dec 2

I'm so delighted to be supporting the Balipara Foundatuon @naturenomics and their fantastic work on conservation, environment, biodiversity and ecology.

> **Balipara Foundation** @naturenomics · Dec 2
> Poverty & growing populations are putting immense pressure on existing resources and threatening already fragile human ecology relationships.- @R_Hawkes, Chief Executive @britishasiantst, UK at #EHNF2020 on People, Planet, Profit: Naturenomics™ Policy @NewsX

1 3

Media Engagement - Regionally & Nationally

Media Type	Reach
Forum Features	126 releases
Articles	12 Publications
TV Streaming	13 Episodes

The Daily Star

newsX

PRAG NEWS

NEWS LIVE

PRAG NEWS

Talk Show with Ranjit Barthakur - Founder, Balipara Foundation

Link:
https://www.facebook.com/pragnewsassam/videos/296342938444725/

PRAG NEWS

Talk Show with Team Balipara Foundation

Link :
https://www.facebook.com/watch/?v=295427621779800

NewsX

Talk Show with Ranjit Barthakur - Founder, Balipara Foundation

Link : https://youtu.be/heuBnHHWCeE

COVERAGE SNAPSHOT

Press Releases

1. https://www.aninews.in/news/business/balipara-foundation-hosting-the-8th-eastern-himalayan-naturenomicstm-forum-2020-in-december-virtually20201125200125#.X75tjfD3y-w.whatsapp
2. https://www.business-standard.com/content/press-releases-ani/balipara-foundation-hosting-the-8th-eastern-himalayan-naturenomicstm-forum-2020-in-december-virtually-120112501262_1.html
3. http://www.businessworld.in/article/Balipara-Foundation-hosting-the-8th-Eastern-Himalayan-NaturenomicsTM-Forum-2020-in-December-virtually/25-11-2020-346647/
4. https://in.finance.yahoo.com/news/balipara-foundation-hosting-8th-eastern-143606423.html
5. https://www.zee5.com/zee5news/balipara-foundation-hosting-the-8th-eastern-himalayan-naturenomicstm-forum-2020-in-december-virtually/
6. http://www.assamtribune.com/scripts/mdetails.asp?id=dec0120/city057
7. http://www.assamtribune.com/scripts/detailsnew.asp?id=dec0320/city052
8. https://www.morungexpress.com/two-from-nagaland-win-balipara-foundation-awards
9. https://theshillongtimes.com/2020/12/07/assam-ngo-honours-turmeric-farmer/

Featured Articles

1. https://epaper.updainikbhaskar.com/view/618/24-%E0%A4%A8%E0%A4%B5%E0%A4%82%E0%A4%AC%E0%A4%B0-–2020/11
2. https://www.downtoearth.org.in/news/agriculture/covid-19-warriors-how-assam-s-mishings-brought-agroforestry-back-into-practice-74044
3. https://inc42.com/resources/role-of-startups-in-ecological-financial-growth-in-a-post-covid-19-world/
4. https://yourstory.com/socialstory/2020/09/organisation-himalayas-afforestation-livelihoods
5. https://www.entrepreneur.com/article/356388
6. https://www.magzter.com/IN/SME-WORLD/SME-World/Business/
7. https://www.sundayguardianlive.com/news/time-accept-ecology-new-economy

About The Eastern Himalayan Naturenomics™ Forum

The Eastern Himalayan Naturenomics™ Forum is a global, interdisciplinary platform that brings together businesses, communities, the development sector, conservationists and academics to foster knowledge sharing, and generate grassroots actionable solutions to create Rural Futures across the Eastern Himalayas.

First instituted in 2013, the Forum has evolved and branched out into regional forums, the first of which was held in Sikkim in 2019, followed by a forum in Bhutan in early 2020. Leveraging the power of technology, the Forum has branched out across the capitals of Eastern Himalayan states & countries & will continue to do so in the coming year.

THE IMPACT

110+ Earth Heroes
200+ Projects
Through the Social Recognition Awards

2000+
Participants

23+
Countries

100+
Discussion Topics

This report was prepared by

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