#### **BALIPARA FOUNDATION**

Assam • India

# RURAL FUTURES: 21<sup>ST</sup> CENTURY TRANSFORMATION FOR THE NATURENOMICS<sup>TM</sup> CIVILIZATION

RANJIT BARTHAKUR

WILD11 – Business Not-As-Usual

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## CREATING A SUSTAINABLE FUTURE: THE ECOLOGICAL CIVILIZATION

The Industrial

Age
Bigger, brighter, faster, cheaper growth through carbon based energy leading to mechanized production and rapid economic growth

WE ARE HERE

The Digital Revolution
ICT, personal computers & the internet create borderless, globalized communications. The Internet of Things, Big Data, Al &

The Naturenomics<sup>TM</sup>

The synthesis of the best qualities of agrarian, industrial & digital societies for equitable, resilient

and

sustainable

Civilization

communities

economic growth

#### BALIPARA FOUNDATION

**Agrarian** 

Civilization

to a barter economy

Income & food security

through domestication of

crops & animals, leading

Machine Learning enrich the

knowledge economy



1.6 Billion People depend on forests for livelihoods



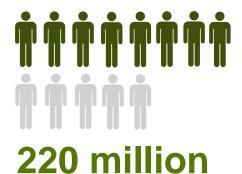
\$33 Trillion The value of the world's natural capital & ecosystems services



\$53 Billion The potential value of India's natural capital & ecosystems services

### THE SCENARIO TODAY

#### THE EASTERN HIMALAYAS: OPPORTUNITY



The market potential of the Eastern Himalayas



Of farmers in the Eastern Himalayas are small farmers, using low chemical-intensive techniques

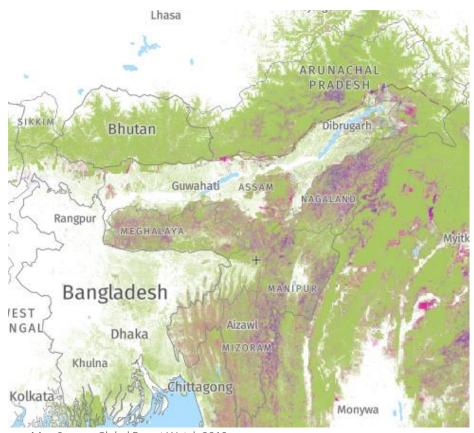


Intact ecosystems



Of forest cover remaining

#### NATURAL ASSETS IN NORTHEAST INDIA



Government authorized 28 reserve areas

**24%** Of India's total forest cover in 2019

₹ 527 Billion

Potential for a natural capital based economy

Of deforestation in India **74%** occurred in the Northeast in 2019

Map Source: Global Forest Watch 2019

#### THE NEED: DISRUPTING THE SDGS

































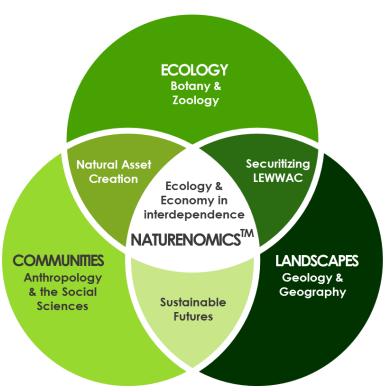




UN SUSTAINABLE DEVELOPMENT GOALS

THE BALIPARA FOUNDATION NATURENOMICS<sup>TM</sup> GOALS

## THE NATURENOMICS<sup>TM</sup> PERSPECTIVE

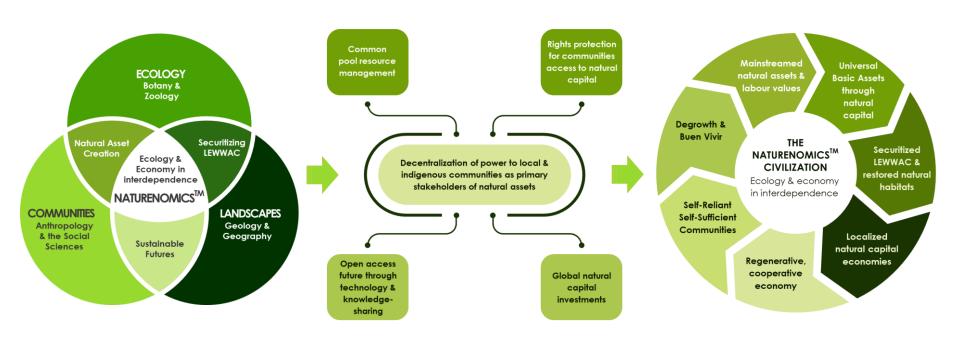


#### INTERDISCIPLINARY PERSPECTIVES

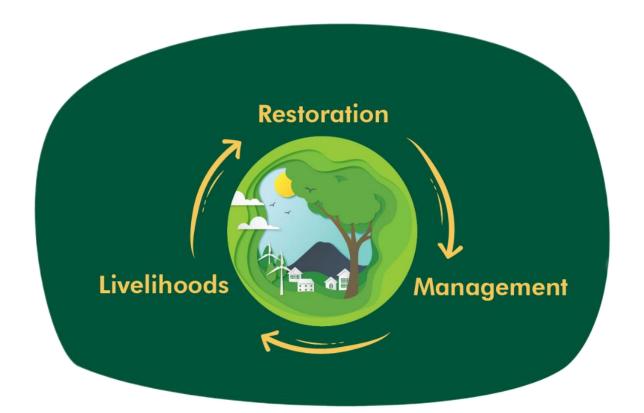
## THE INTERDEPENDENCY OF ECONOMY & ECOLOGY

Visualizing an ecologically regenerative model of economy propelled by natural asset creation, to securitize LEWWAC (land, energy, water, waste, air and carbon), and build sustainable futures in the Eastern Himalayas

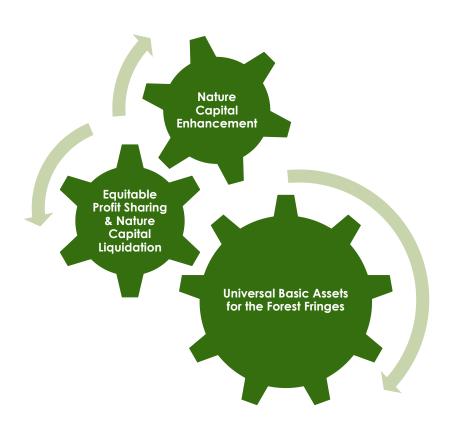
## A VISION FOR THE FUTURE: THE NATURENOMICS<sup>TM</sup> CIVILIZATION



## HOW? THE RURAL FUTURES MODEL

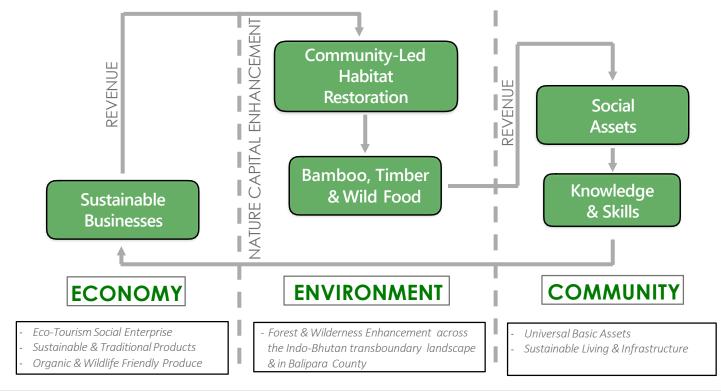


#### TRANSFORMING NATURAL CAPITAL





#### TRANSFORMING FORESTRY

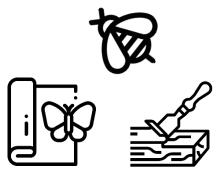


#### TRANSFORMING AGRICULTURE



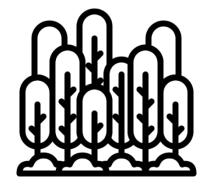
#### **Agroforestry**

Food forests, crop intensification & restoration agriculture through intercropping in tea gardens



# High value secondary businesses

Apiaries, sustainable timber, silk & sericulture



## Natural Asset Regeneration

Community-driven habitat restoration & natural asset management

# THE POTENTIAL: NATURENOMICS<sup>TM</sup> AGROFORESTRY GRID

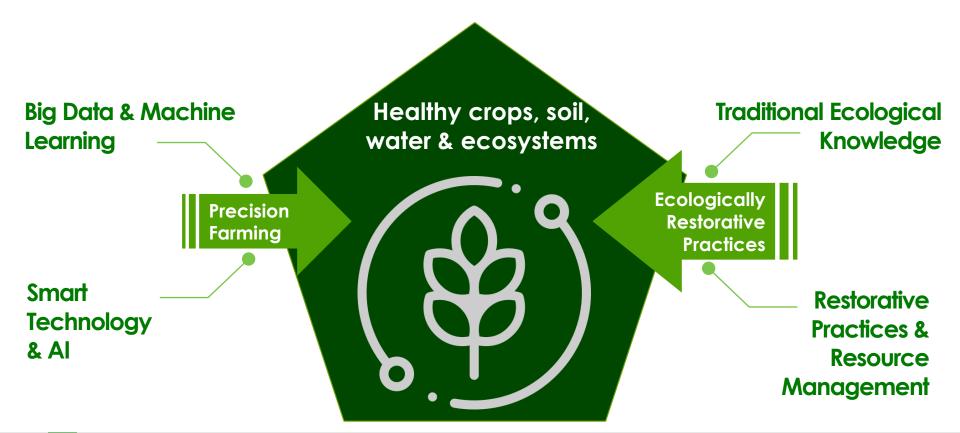


**Completely Integrated Agroforestry** 

- 1. Canopy Layer (large fruit & nut trees)
- Low Tree Layer (fruits & other horticultural produce)
- 3. Shrub Layer (tea, berries)
- Herbaceous Layer (vegetables, medicinal crops, herbs, spices)
- 5. Ground Cover Crop (fodder crop)
- 6. Rhizome Layer (root vegetables & produce)
- 7. Vertical layer (gourds & other climber produce)
- 8. Fisheries
- 9. Cattle/Livestock (including dairy produce)

Base image source: FAO Landscapes for Life report

#### THE FUTURE: AGROECOLOGY & SMART TECH



#### TRANSFORMING MINDFUL TOURISM



**Agritourism** — Tea tourism, traditional agricultural cultivation techniques, wildlife friendly food forest farm experiences with birdwatching & biocultural trails, experiencing end to end handicraft production from farm to artisans



#### Communityowned tourism

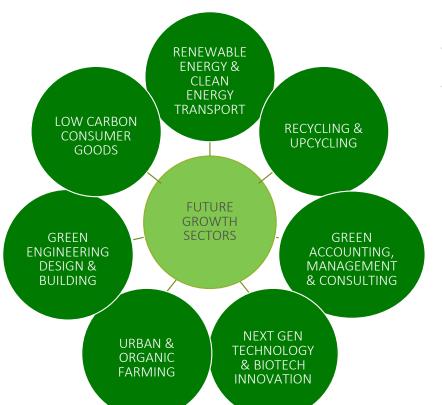
Homestays, profit-sharing models with land-owned by communities and resorts managed by 5 star hotel chains, capacity building to develop hospitality skills

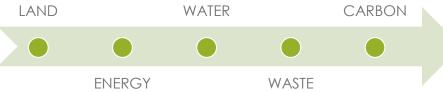


**VR experiences** — Experience world heritage sites & national parks, adventure sports (skiingmountain-climbing), traditional artisans through virtual reality platforms as a taster for tourism in the Eastern Himalayas

#### TRANSFORMING WORK

#### LEEWAC-CENTRIC



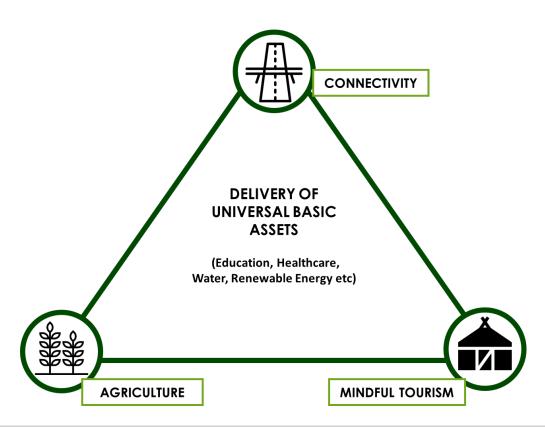


## THE GREEN ECONOMY IS THE NEXT SUNRISE INDUSTRY

- 1.2 billion jobs depend on a healthy environment
- 18 million jobs can be created in total in the renewable energy sector by 2030
- 6 million jobs for the circular economy
- Organic farming requires 20% more workers than conventional industrial farming

Source: ILO World Employment Social Outlook 2018: Greening with Jobs & OECD Employment Implications of Green Growth (2017)

#### TRANSFORMING ECONOMY



#### THE ENVIRONMENT POSITVE ECONOMY



Evolving to adapt for the future

Renewables (Solar, Wind, Hydrogen)

Agroecology & smart farming, together

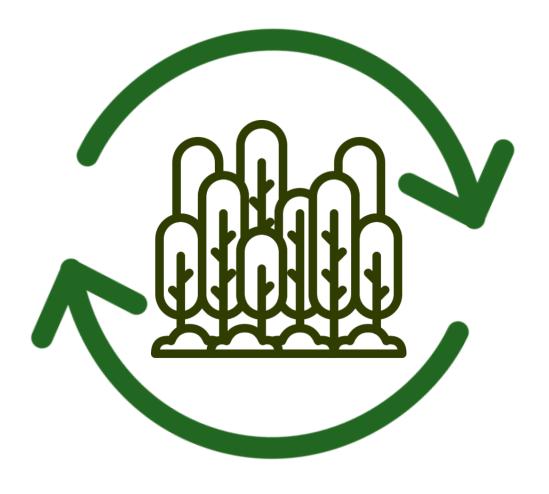
NATURAL ASSET REGENERATION & ENHANCEMENT

**Water Management** 

**Waste management** 



Building resilient communities & economies



# OUR FUTURE

