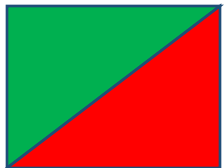


# (Reduction of Emissions from Deforestation and Forest Degradation) REDD+ Pilots

## Background and Proposed Actions

Swapan Mehra, CEO  
IORA Ecological Solutions



# Evolution of REDD+

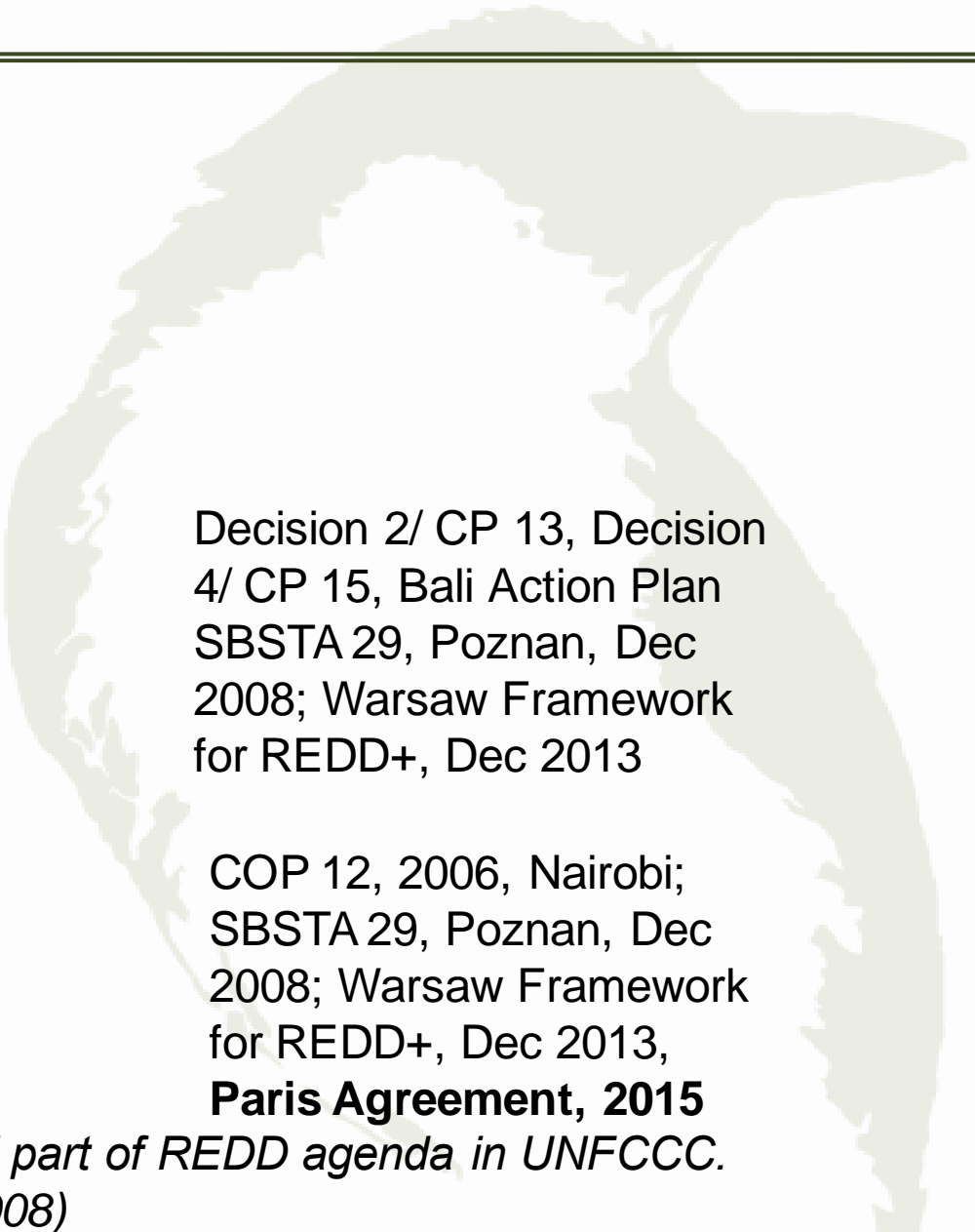
Noel Kempff Mercado Project  
(1997) (Bolivian Amazon) – An  
Experiment



RED/ REDD (Amazon Nations,  
Congo Forest and Indonesia)



REDD+  
Incentivize Forest Conservation  
and Enhancement (India, China)



Decision 2/ CP 13, Decision  
4/ CP 15, Bali Action Plan  
SBSTA 29, Poznan, Dec  
2008; Warsaw Framework  
for REDD+, Dec 2013

COP 12, 2006, Nairobi;  
SBSTA 29, Poznan, Dec  
2008; Warsaw Framework  
for REDD+, Dec 2013,  
**Paris Agreement, 2015**

*India contributed the 'plus' part of REDD agenda in UNFCCC.  
(Rawat and Kishwan in 2008)*

# REDD+ : Contribute to achieving SDGs



Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss  
**Aligned with REDD+ goals**



Take urgent action to combat climate change and its impacts  
**Aligned with REDD+ goals**



Ensure sustainable consumption and production patterns  
**REDD+ entails sustainable extraction of forest produce**



End poverty in all its forms everywhere  
**REDD+ ensures biodiversity conservation, local socioeconomic benefits, governance improvements**

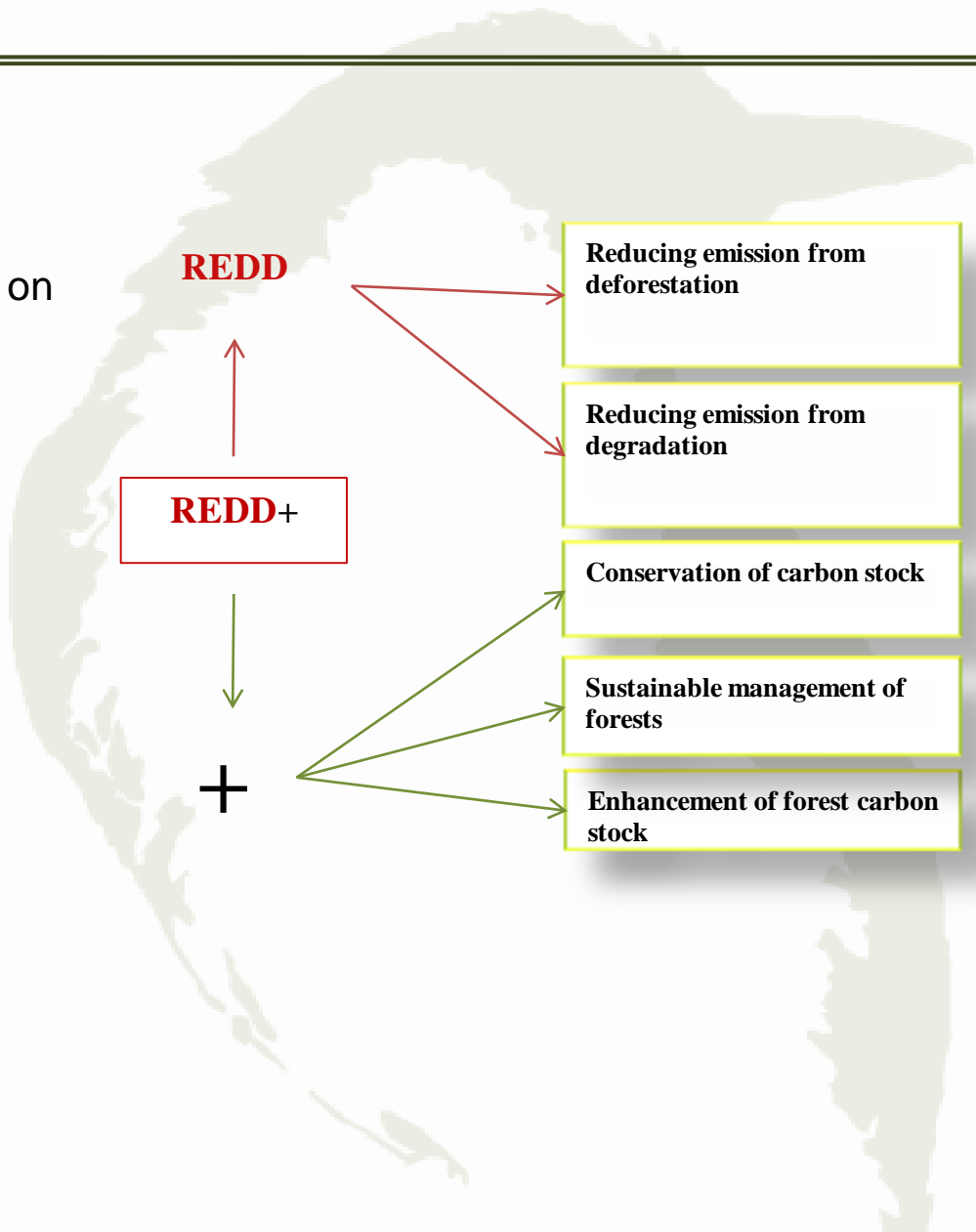


End hunger, achieve food security and improved nutrition and promote sustainable agriculture  
**REDD+ ensures biodiversity conservation, local socioeconomic benefits, governance improvements**

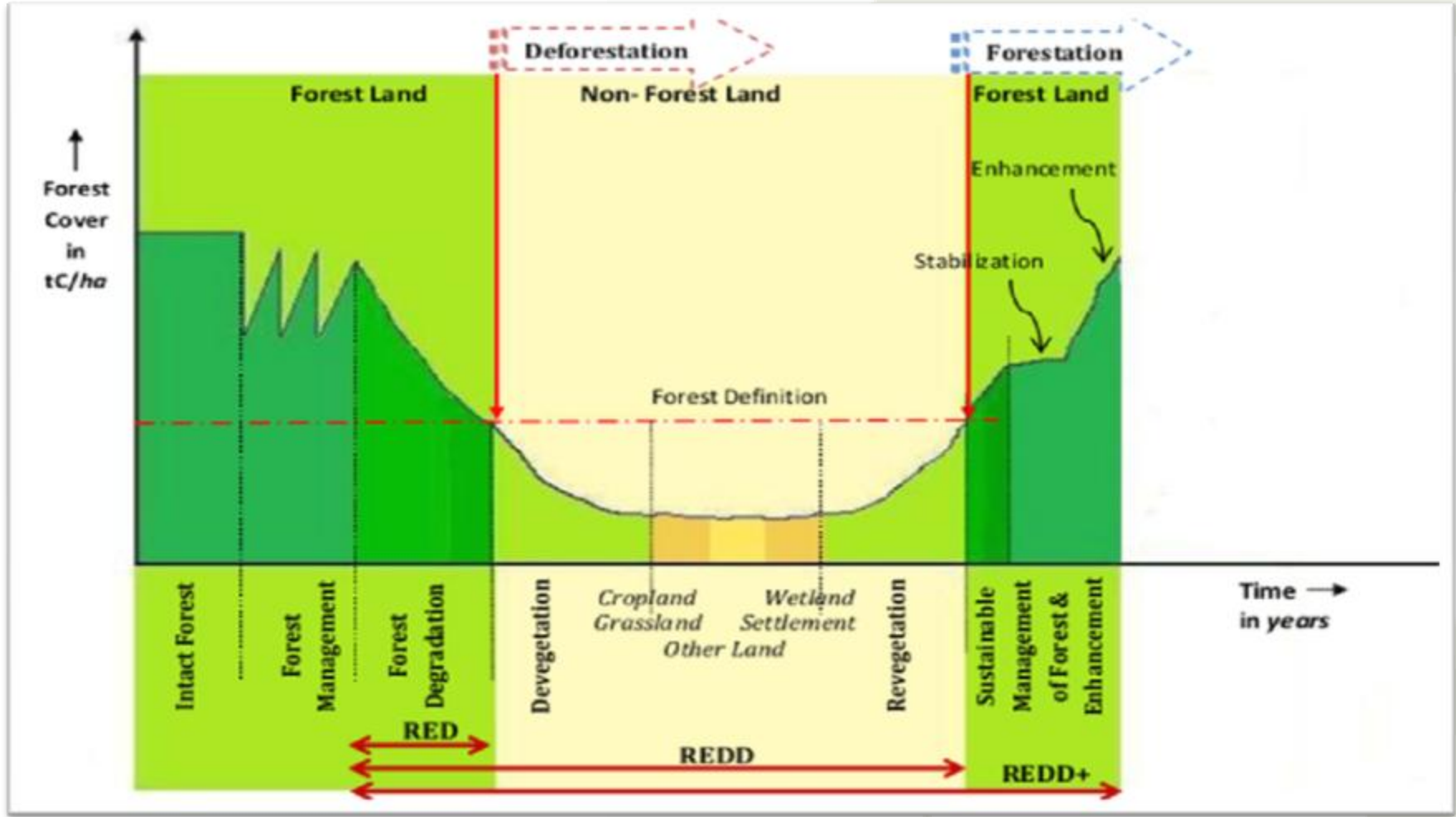
# REDD+: Definition

“Policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries”

*(The Bali Action Plan Decision 1/CP13 Para)*

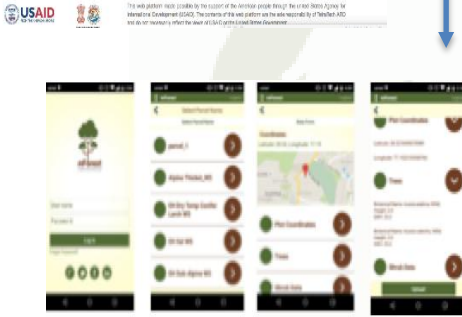
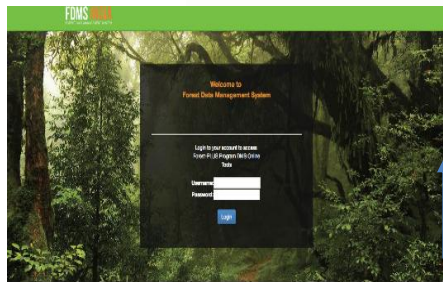
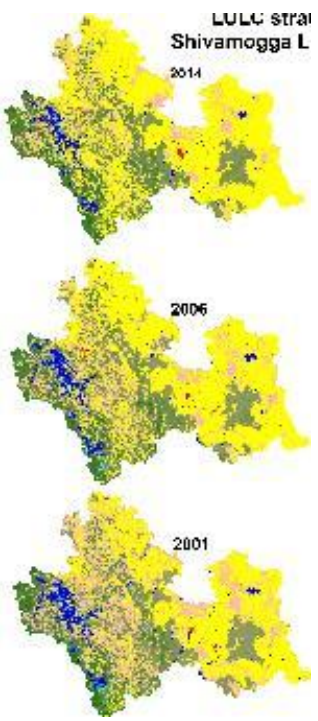


# Demonstrating REDD+ baselines



Source: Adapted from Lasco (2010)

# REDD+: Pre-requisites



**Reference Emission Levels/ Baselines**  
Also Useful for: WP, NDC, NAMA, Forest Health Assessment, **Land Use Change**

**Ecological and Social MRV System**  
Data Management and Field Inventory  
Also Useful for: WP, NDC, NAMA, Forest Monitoring, SDG Monitoring

**Community Benefit Sharing Mechanisms and safeguards**  
Also Useful for: Interdepartmental Goals, SDG and Poverty Alleviation Goals

# REDD+ and Communities

## HOW COMMUNITIES CAN HELP REDD+

- Indigenous and local communities are key stakeholders in the protection and management of forest ecosystems and hence success of REDD+ will depend on their efforts and level of involvement
- The traditional knowledge and practices of forest conservation will significantly contribute to the success of REDD+



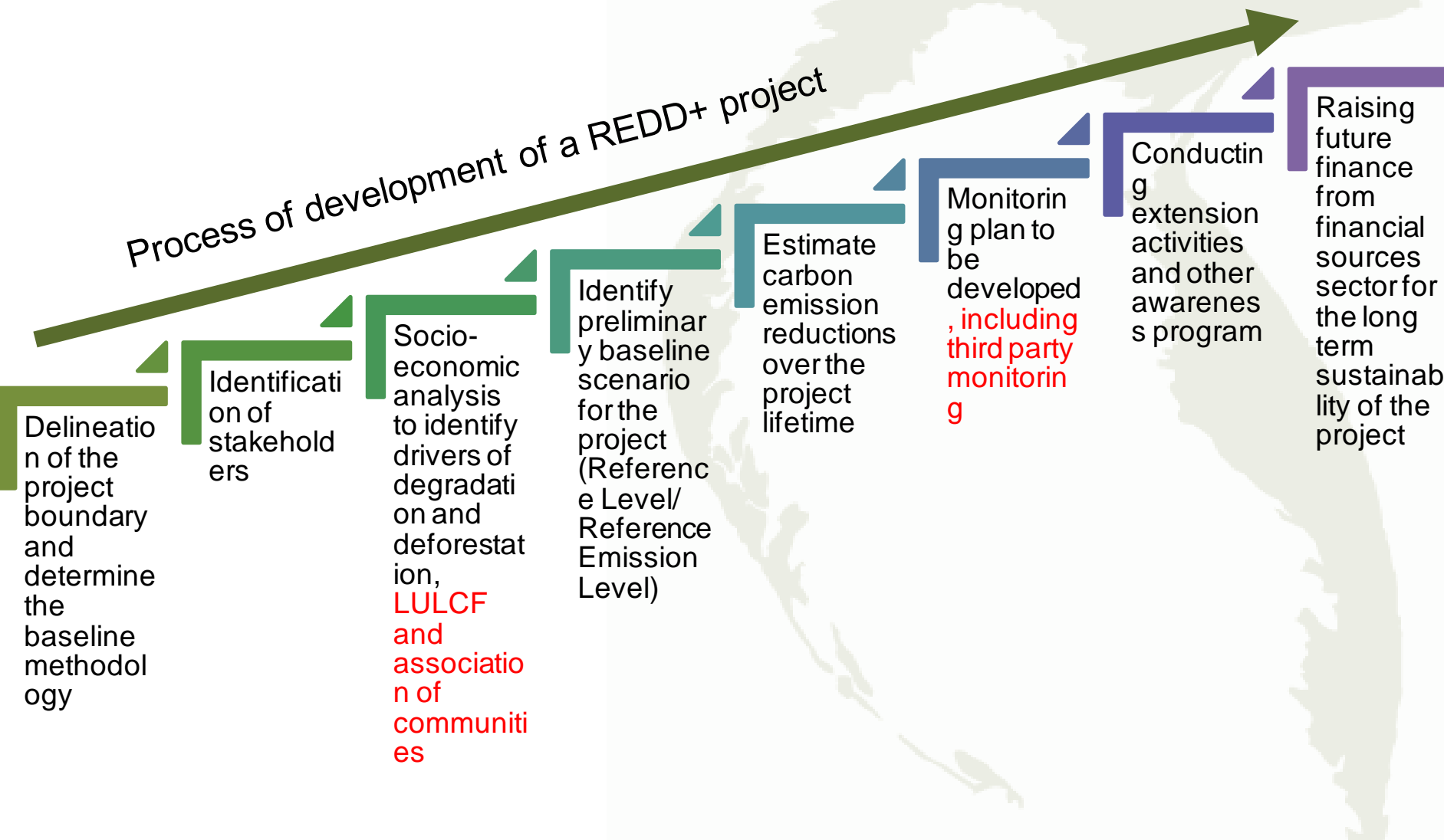
## HOW REDD+ CAN HELP COMMUNITIES

- Incentives can provide source of livelihood and **improved** socio-economic condition
- Help in climate change adaptation
- Building knowledge and capacity
- Ensure full and effective participation

- India in its **Reference Document for REDD+** says that it is mandatory to develop and build safeguard information system (SIP) for providing information on safeguards and how the country is addressing and respecting the safeguards.
- At international level the decision on reporting safeguard was taken at COP 17, Durban and provided guidance on how safeguards shall be addressed and respected. It was also decided that the safeguard information should be periodically reported to UNFCCC through NATCOM. Decision 12/CP.17

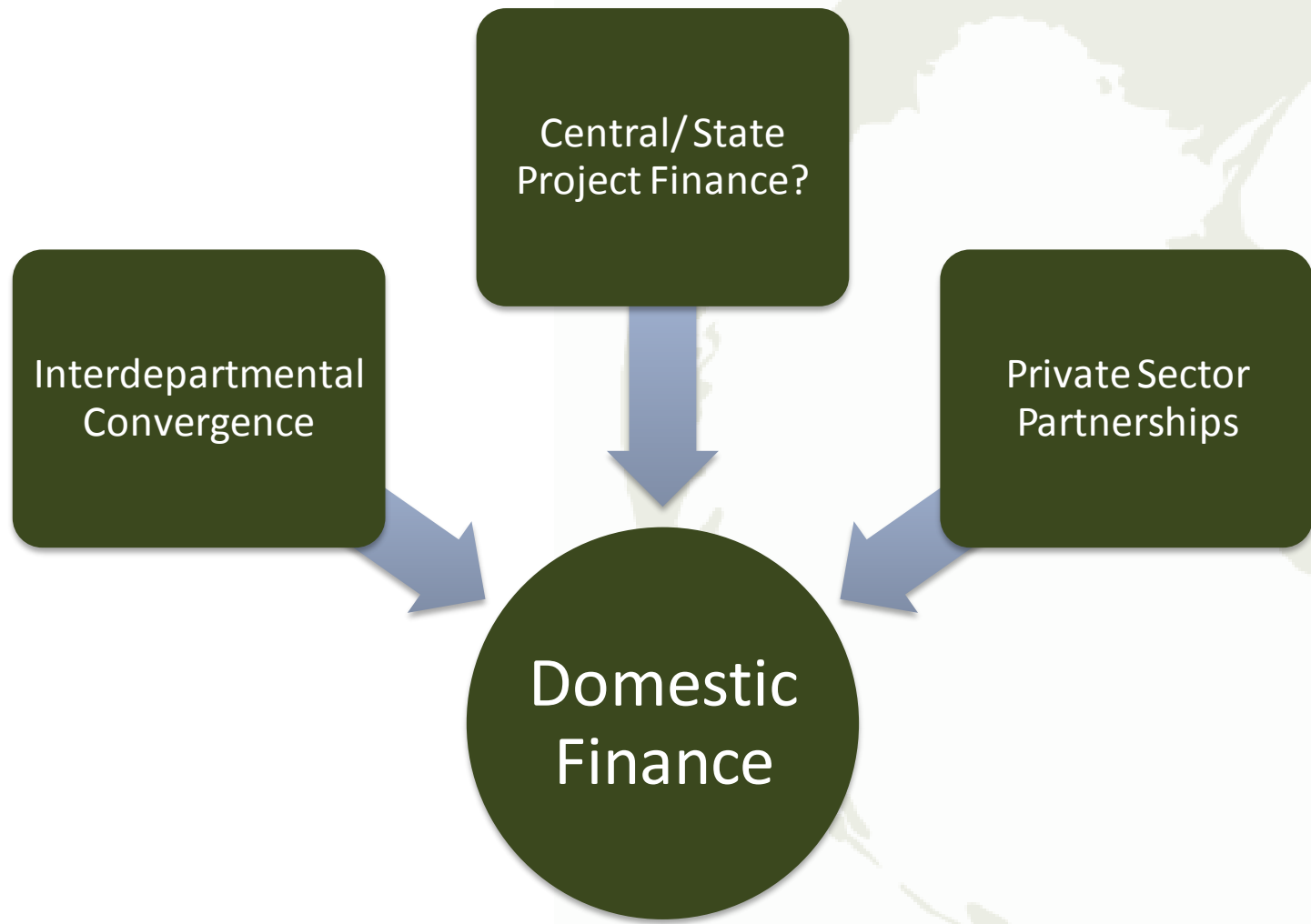


# Developing a REDD+ Project

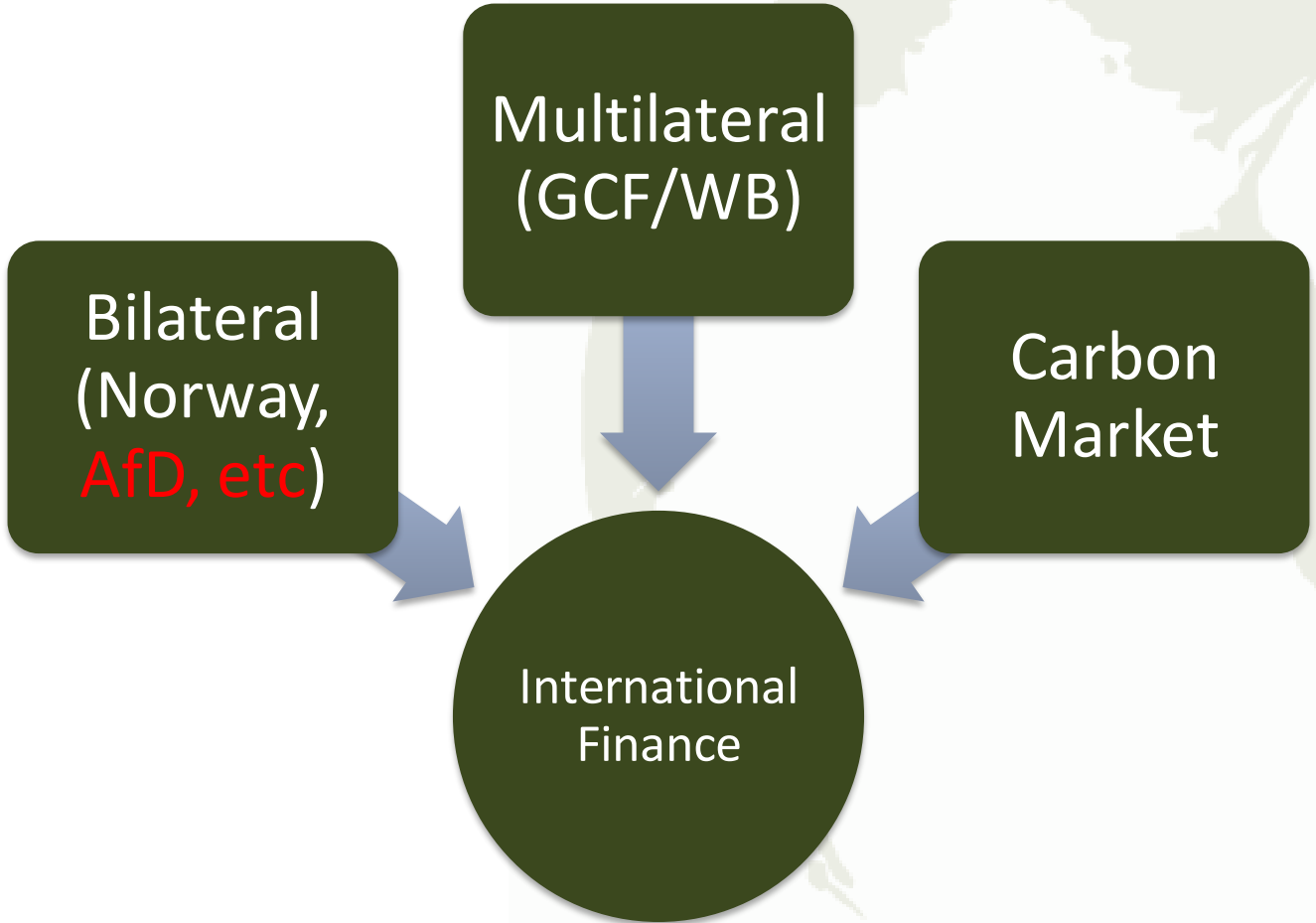




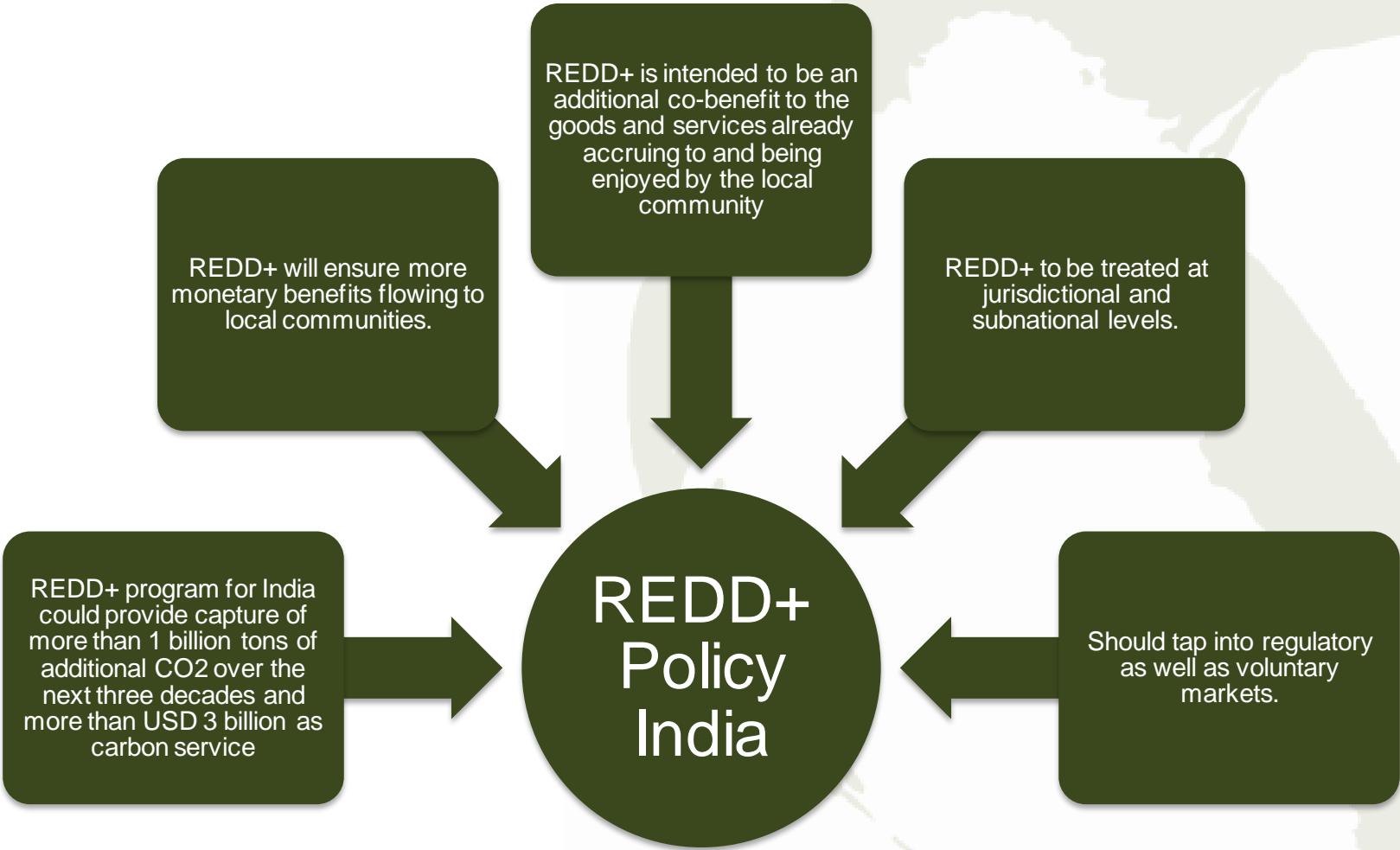
# REDD+ Financing: Domestic



# REDD+ Financing: International



# REDD+ Policy India



# REDD+ in India

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## REDD+ initiative

**Forest-PLUS Program (M.P., Karnataka, Sikkim and H.P.)**

**VCS REDD+ Methodology for India**

**Garo hills community REDD+ project, Meghalaya**

**REDD+ Assessment in North East India**

**Assam Jurisdictional REDD+**

**Uttarakhand REDD+**

**REDD+ feasibility study in Nagaland**

**REDD+ feasibility in Dodamarg, Maharashtra**

**National REDD+ Reference Document and Policy**

**REDD+ Manual for field practitioners**

## Details

Four REDD+ pilots, MRV System, RS Protocols

Suited to Indian data sets (FSI, State Data) and condition

Community based forest conservation and PES mechanism in Meghalaya based on Plan Vivo

Identification of potential projects in all NE states in partnership with RCNAEB

Developing district level REDD+ project in Assam

State sponsored REDD+ project across chosen villages.

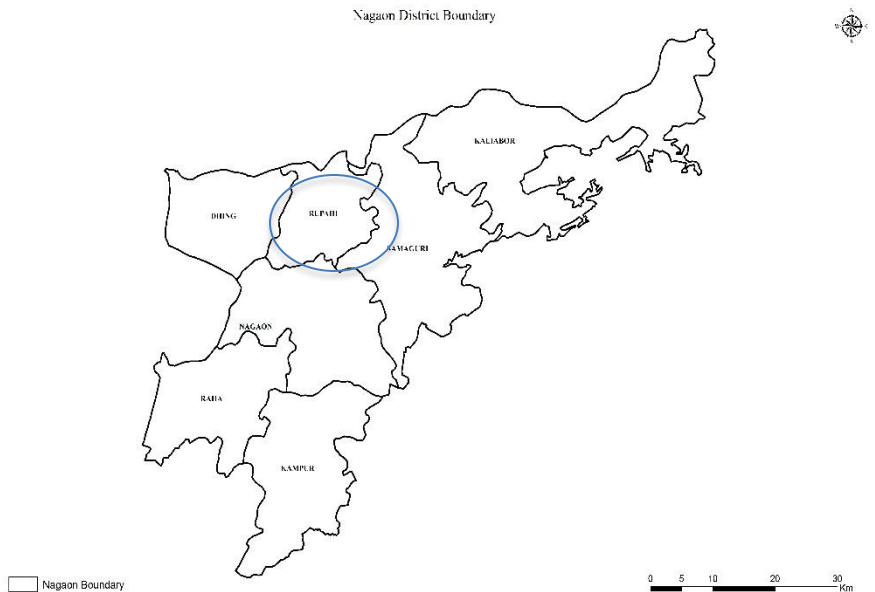
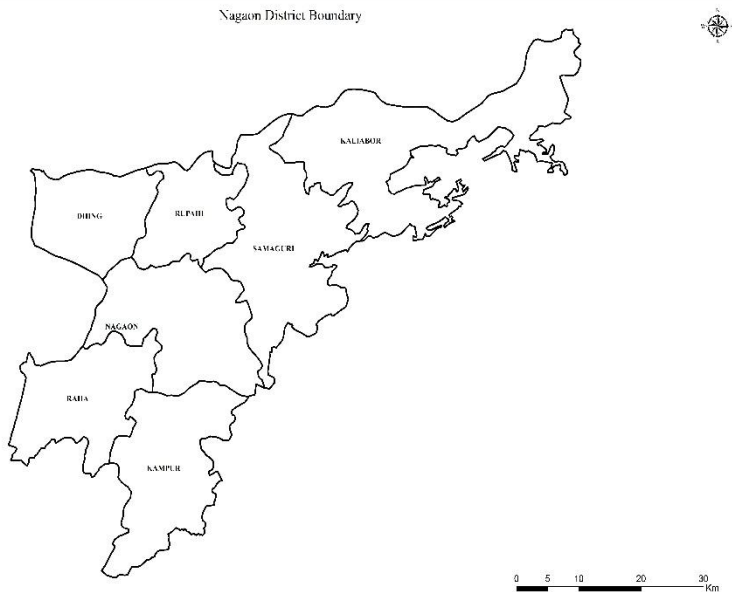
REDD+ Pilot in community forest

Initiated by Maharashtra State Forest department

Published by MoEFCC

Document to help practitioners of REDD+

# REDD+ Jurisdiction vs. Project



District Level/  
State Level/ Circle  
Level

Sub Jurisdiction  
Landscape

# Advantage of Jurisdictional REDD+

## Convergence in Planning

- Policy, Actions and Measures
- Co-benefits
- Supplement and symbiotic efforts
- Enhanced benefits to communities

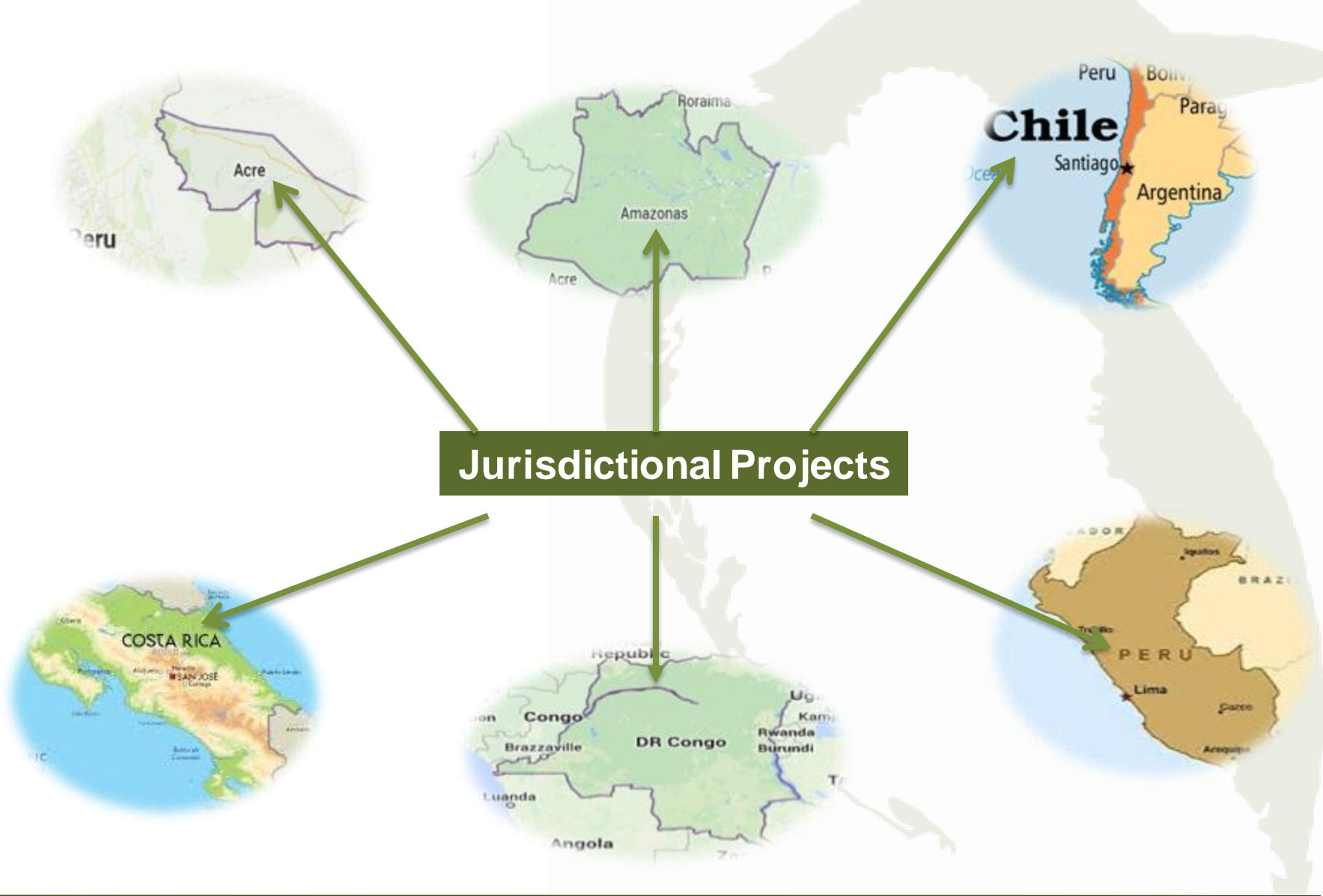
## Transaction cost

- Far lower
- Monitoring synced to on going actions

## Leakage

- Far lower
- Jurisdiction boundaries can address leakage better and contribute to permanence

# REDD+ Jurisdictional Projects Across the World



# Framework of Jurisdictional REDD+ in Assam

## Assam JNR Project\*

Developing Reference Emissions Levels

Analysis of potential emission reductions, sequestration and leakage

Identification of drivers, intervention activities and safeguards

Benefit-sharing mechanism through consultation

Monitoring, Reporting and Verification Plans

Capacity Building

Communication for outreach and creating awareness

Interdepartmental convergence

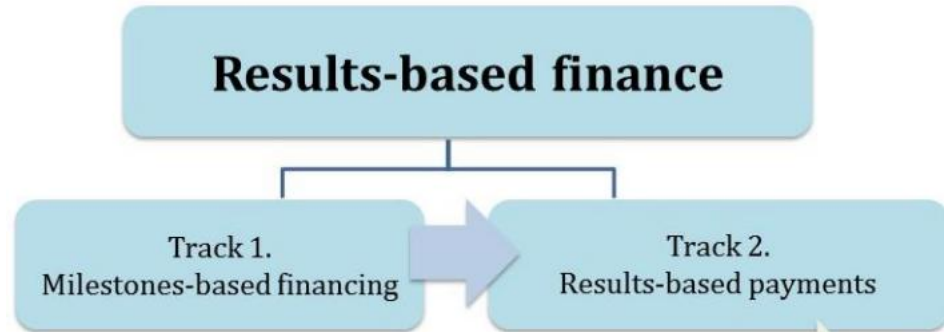
\*JNR – jurisdictional and nested REDD+



# International Finance for Assam REDD+



GREEN  
CLIMATE  
FUND



GCF/B.14/03

- Provide Grants, Concessional loans for REDD+ in developing countries.
- Sub-national level implementation encouraged as countries build capacity to reach national levels

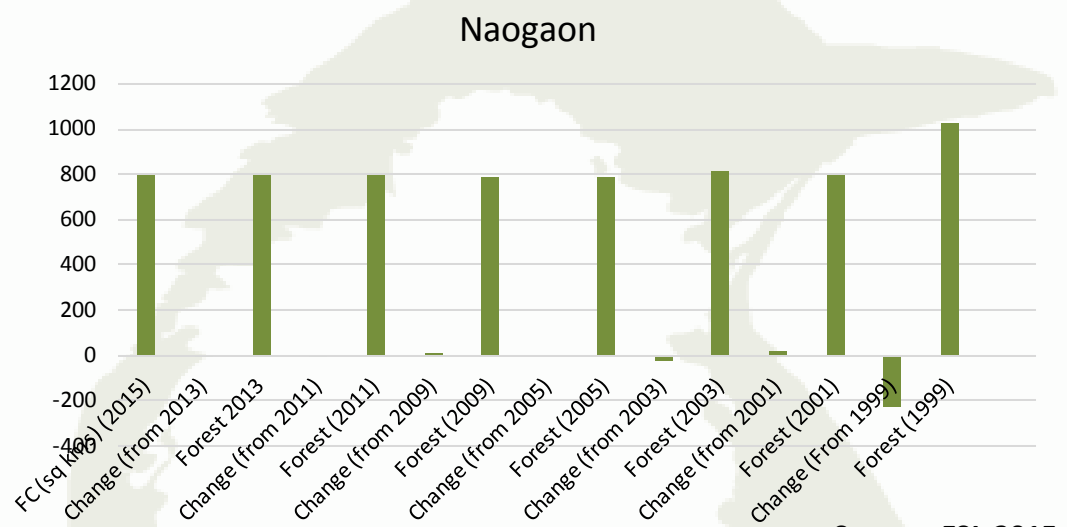
[https://www.greenclimate.fund/documents/20182/409835/GCF\\_B.14\\_03\\_-\\_Support\\_for\\_REDD-plus.pdf/665055cb-78bd-45f3-a666-f3d06fb04a15](https://www.greenclimate.fund/documents/20182/409835/GCF_B.14_03_-_Support_for_REDD-plus.pdf/665055cb-78bd-45f3-a666-f3d06fb04a15)

# Nagaon

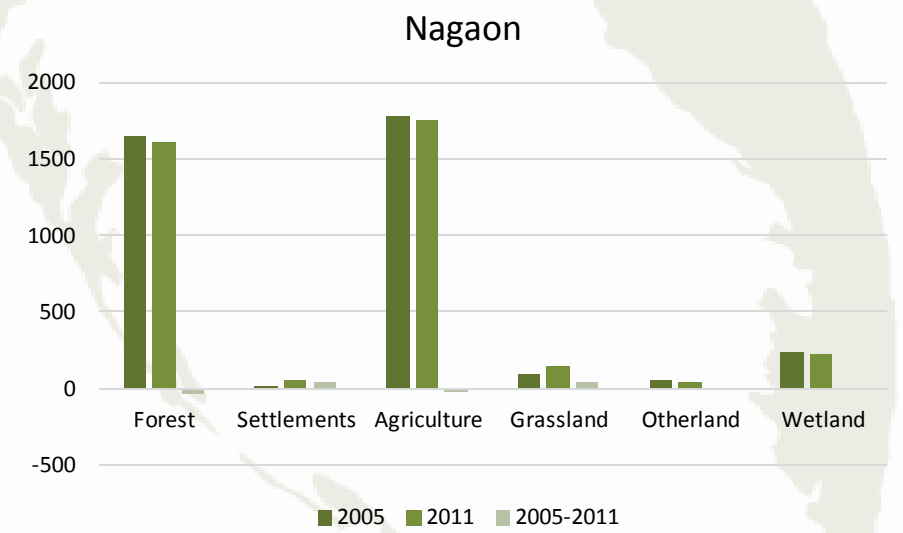
## Nagaon Forests

Total Forest area-793 sq km (FSI 2015)

1. In Nagaon, negative change in forest cover was recorded during 1999-2001 and 2003-05. Overall the forest cover has decreased slightly in the last sixteen years (1999 to 2015).
2. NRSC data also showed slight decrease in forest cover from 2005 to 2011. Increase in grassland and settlement area has increased during these periods.
3. There are 21 Reserve Forests in the district covering a total of 69414.08 ha of land.
4. As per records available, an area of 3154.50 Ha of land is under encroachment in different RFs/PRFs of Nagaon district.



Source: FSI, 2015



Source: NRSC

# Majuli

## Mostly TOF

1. The largest river island in the world and the first island district of India
2. Having extreme historical and cultural importance and vying for recognition as a UNESCO World Heritage site
3. Facing an acute erosion problem causing immense loss
4. Average annual rate of erosion and deposition 1966 – 2008 period were 8.76 km sq/yr and 1.87 km sq/yr (Dutta et al, A study of erosion-deposition processes around Majuli Island, Assam, Earth Science India, Vol. 3 (IV), October, 2010, pp. 206-216)
5. Since 1953 flood and erosion control measures were undertaken by the government. However, the results are far less
6. Huge migrations of habitants

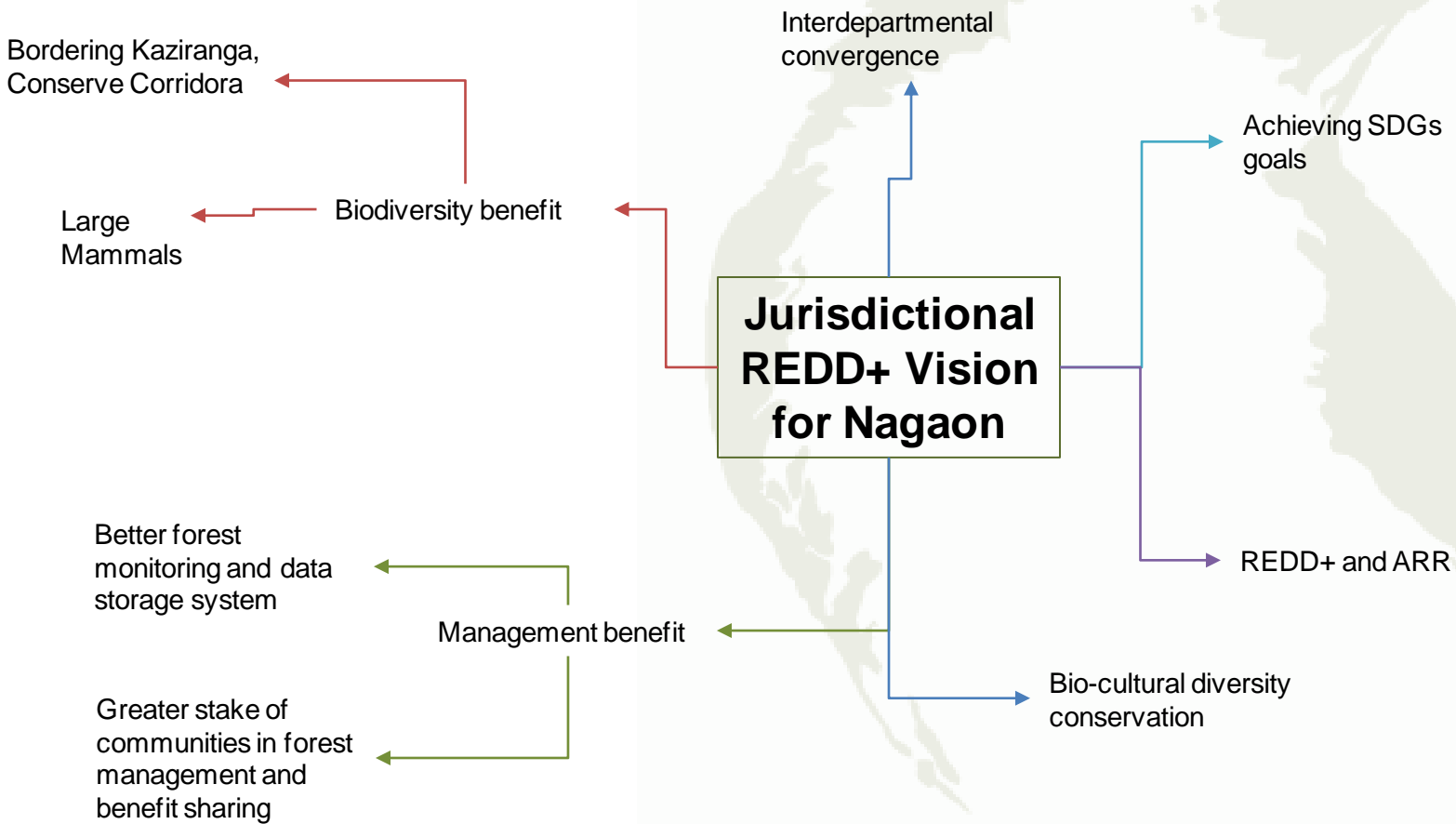
Year	Land Area	Area Eroded	Average Area Annually Lost	Data Source
1914	733.79	-	-	Survey of India Map
1949	708.91	24.88	0.71	Survey of India Map
1963	588.79	120.12	8.58	Survey of India Map
1988	513.89	74.90	3.00	IRS LISS III
1998	510.79	3.10	0.31	INSAT IC LISS III
2004	502.21	8.58	1.43	IRS P6 LISS III
2008	506.37	- 4.16	- 1.04	IRS P6 LISS IV
2013	522.73	- 16.36	- 3.27	IRS P6 LISS IV

Loss of landmass (Km sq) by erosion (source: Sarma, A., Landscape degradation of River Island Majuli due to Flood and Erosion by River Brahmaputra and its Restoration, Journal of Medical & Bioengineering, Vol 3, No. 4, Dec 2014)

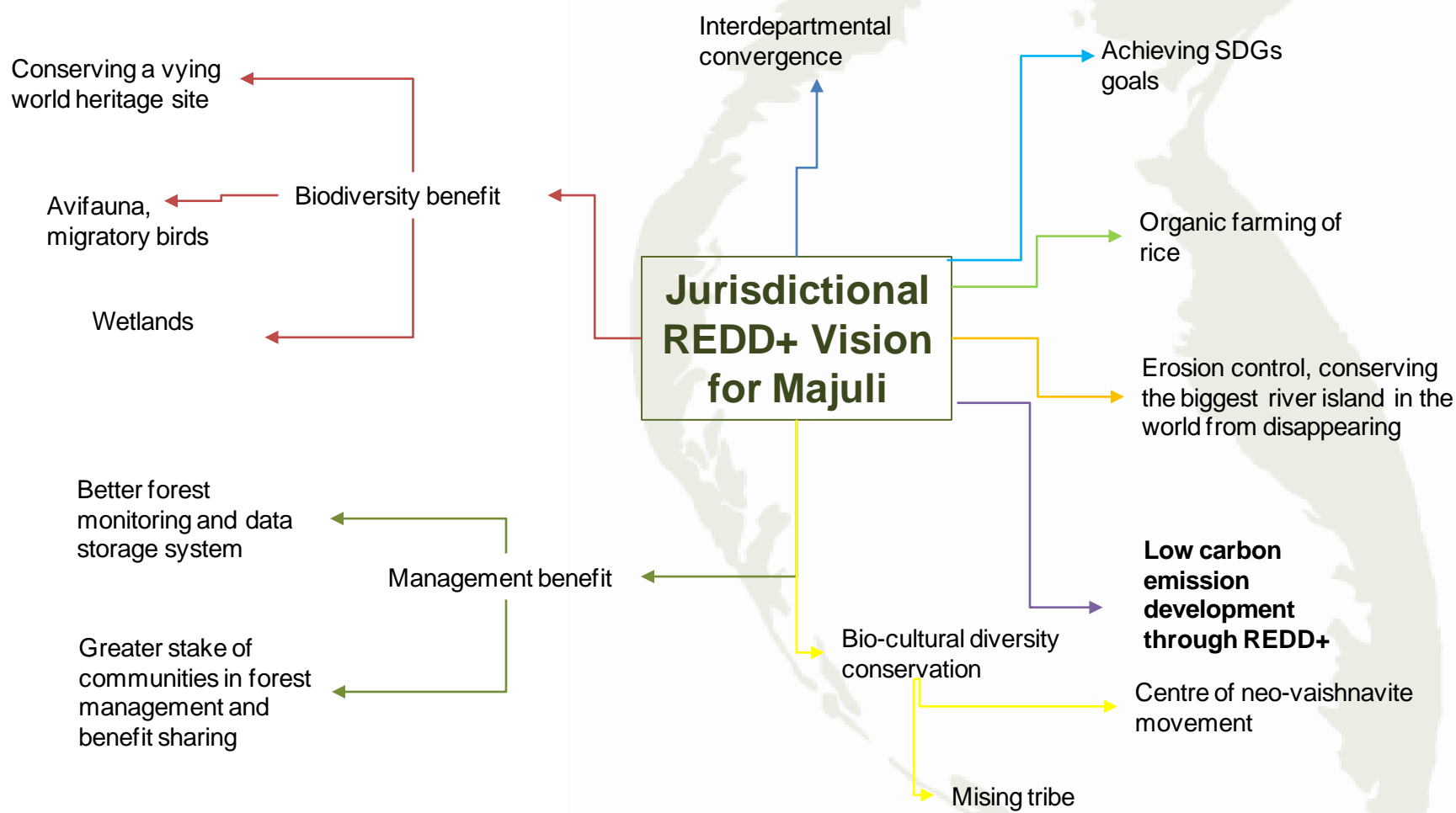
Year	Number of Swamp/ Water Body	Number of Streams/Drainage Channels
1917	112	49
1972	52	7
2013	21	1

Status of water bodies/swamps and drainage channels in Majuli (source: Sarma, A., Landscape degradation of River Island Majuli due to Flood and Erosion by River Brahmaputra and its Restoration, Journal of Medical & Bioengineering, Vol 3, No. 4, Dec 2014)

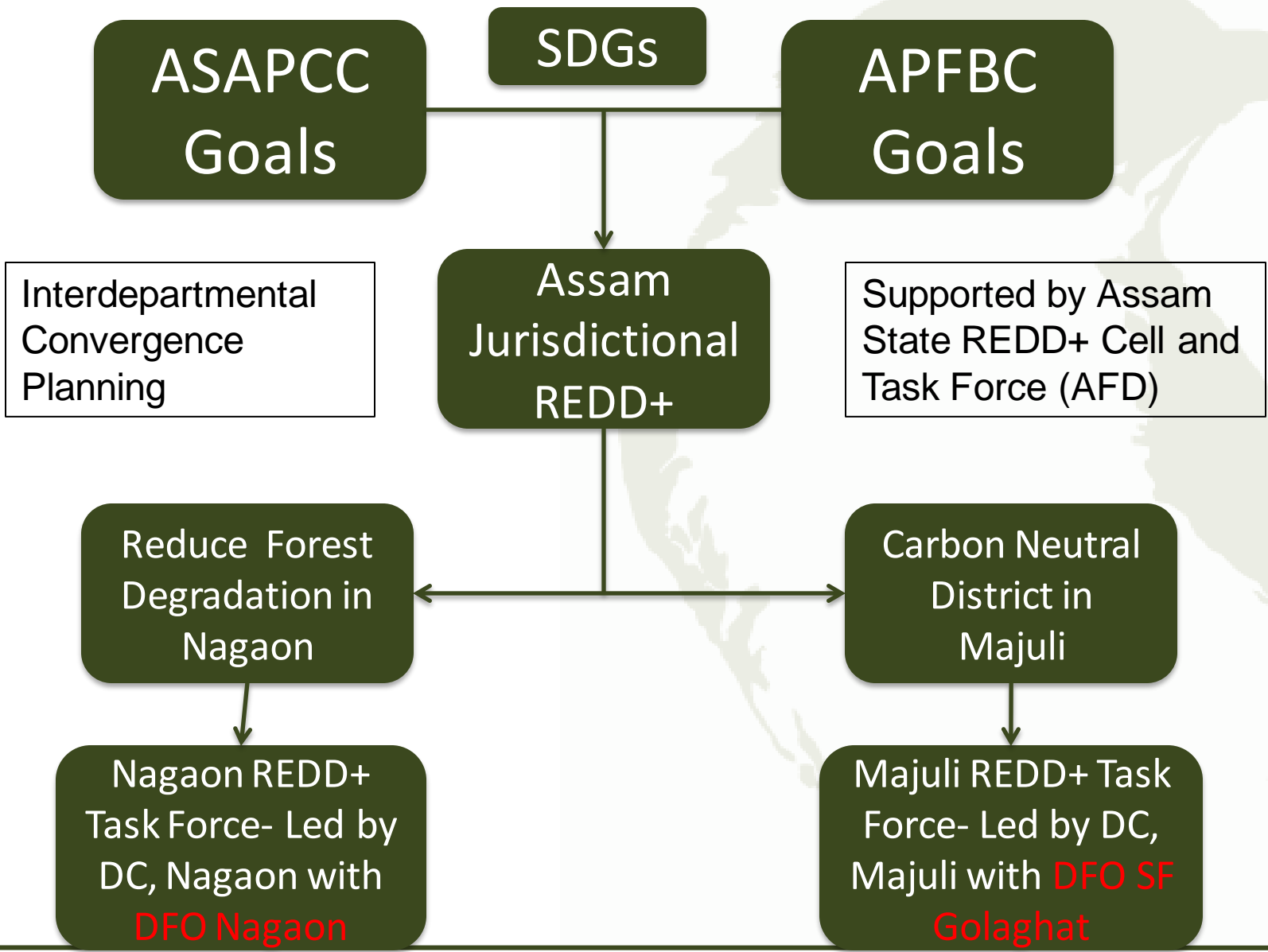
# Vision for Nagaon: Reduce Degradation of Forests



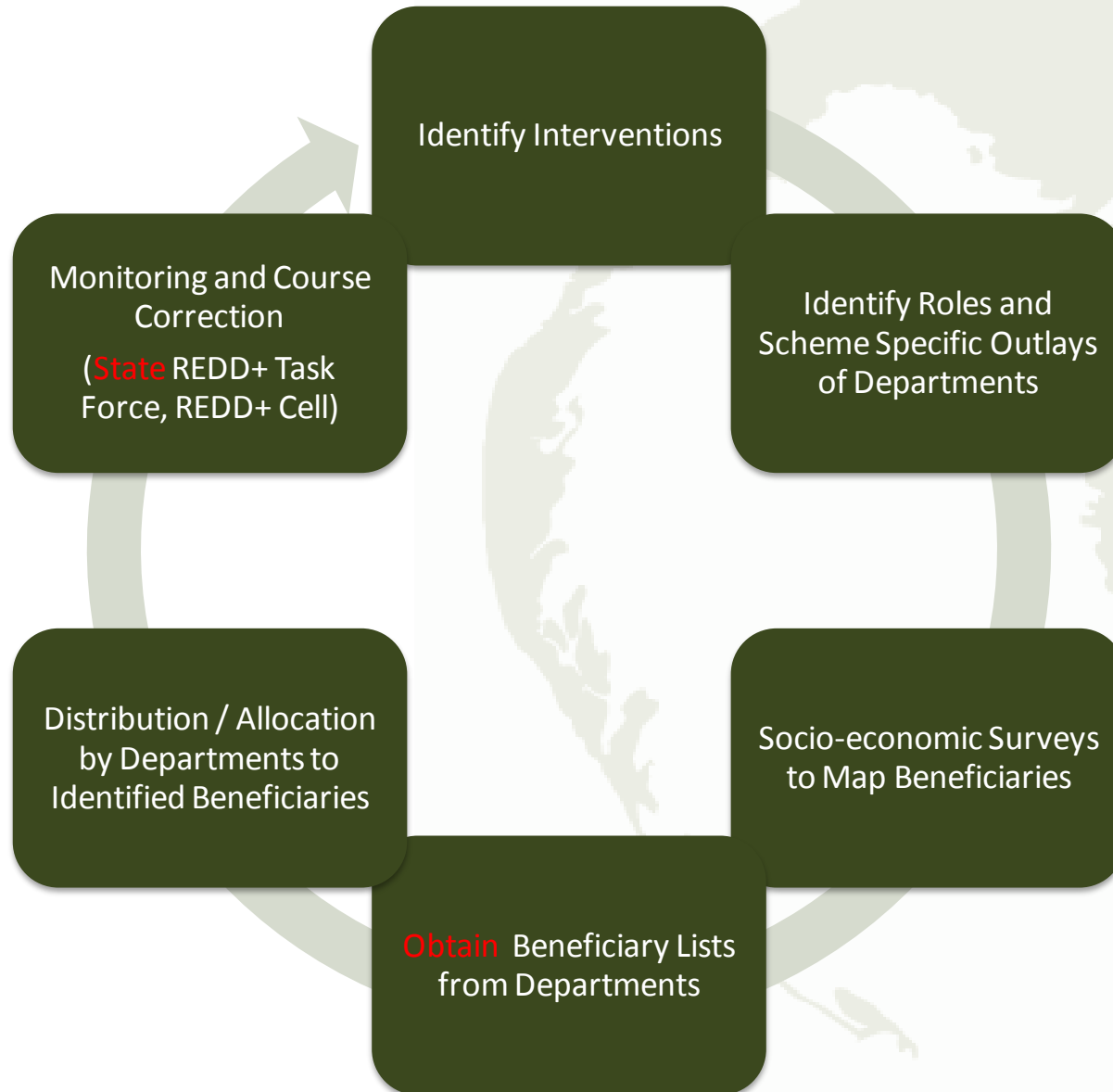
# Vision for Majuli: India's first Carbon Neutral District



# Institutional Framework: Assam REDD+



# Process Flow for Interventions



# Success Stories of Convergence

To maximize the outcomes and to effectively address the issue of forest conservation and management and bring environmental, economic and social benefits for the communities, there is a need to utilize the resources from various departments

## Convergence for REDD+ projects of IORA

### Government of Madhya Pradesh

- Successful convergence between MP Forest Department, MGNREGS, Mahindra Sanyo Special Steel Pvt. Ltd. and IORA for plantation of 42000 bamboo and teak saplings in Harda

### Government of Karnataka

- Collaboration between Karnataka Forest Department, Village Forest Committee, Communities, and IORA for designing and developing a Medicinal Garden in Shivamogga, Karnataka.
- Department of Agriculture shared data of 9500 soil samples with IORA to support REDD+ interventions.

### Government of India

- Collaboration between MoEFCC, IORA and Private Sector partner JC Decaux and Vertiver for National Campaign "Forests Are Life"



# Afforestation in Madhya Pradesh



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# Thank You

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