



Promoting green entrepreneurship for biodiversity conservation and resilient communities in Socio-ecological production landscapes from the North Western Ghats, India



**Applied Environmental Research Foundation
(AERF)**

Introduction

AERF is registered NGO based out of Pune, India , is active in the field of participatory Conservation for last 18 years. The geographic focus of AERF's work has been the Western Ghats and Eastern Himalayas.

A member of IUCN , AERF is working for mainstreaming biodiversity conservation in rural livelihoods, energy and climate change domains through five thematic programs:

- Sacred Groves' conservation**
- Applied Biodiversity Research**
- Communities, Conservation and climate change.**
- Energy and Biodiversity**
- Business and Biodiversity**

The Western Ghats

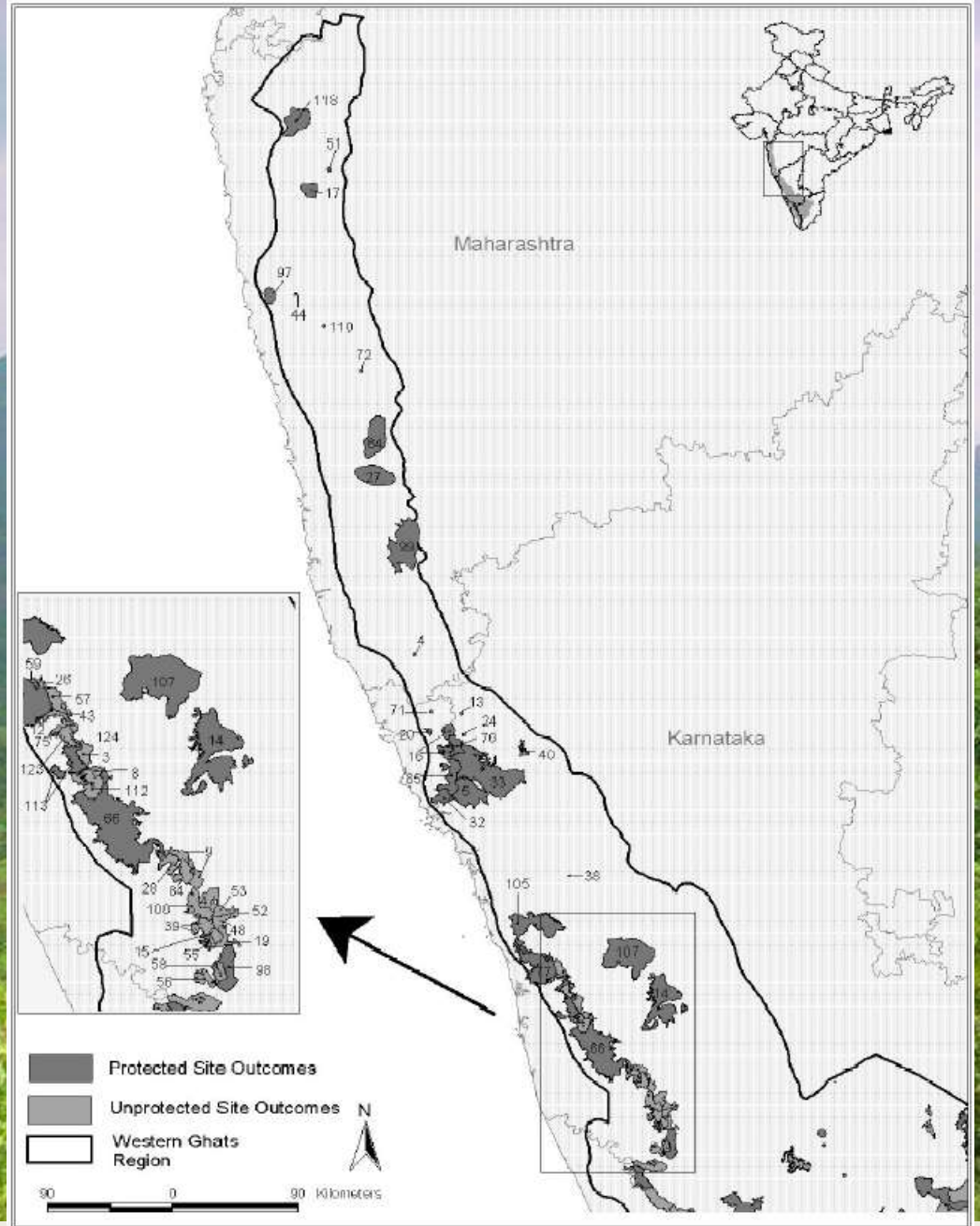
– *a global biodiversity hotspot*

- 78% amphibians, 62% reptiles, 38% plants, 12% mammals endemic to the W. Ghats



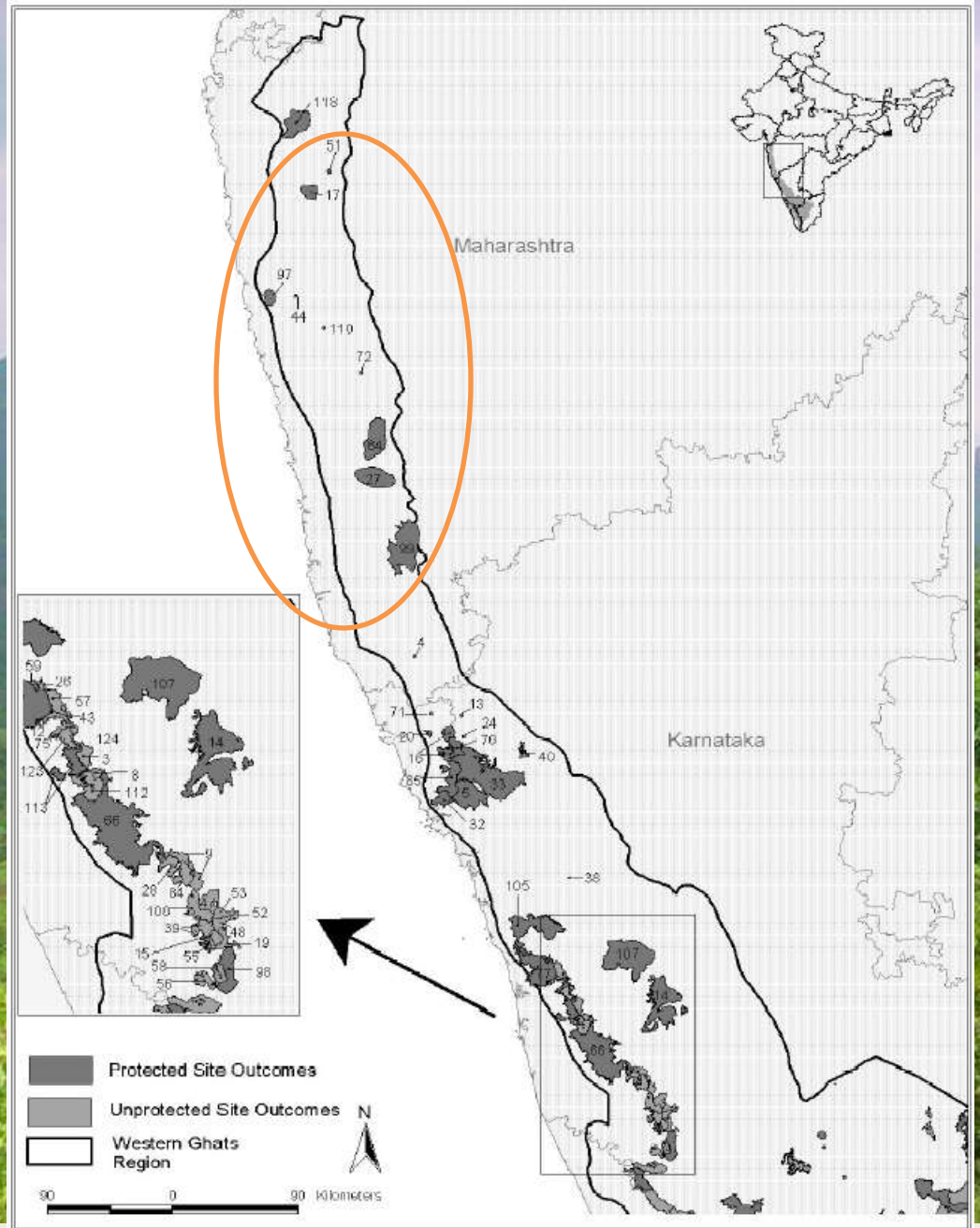
North vs. South

Protected areas few and sparse – 11 in north Western Ghats vs >30 in south



North vs. South

Between 0.6% to 5%
of area currently
being protected



Status of forest cover in Sahyadri-Konkan Corridor landscape

Sr. No	Name of the District	Geographical area (sq km)	Total forest cover (sq km)	Percentage of forest cover w.r.t Geographical area
1	Raigad	7152	2864	40.04
2	Ratnagiri	8208	4199	51.16
3	Sindhudurg	5207	2573	49.41
4	Thane	9558	2912	30.47

Landscapes in North Western Ghats



Dealing with the threats to biodiversity head-on



The challenge of conserving private forests

- Lack of economic opportunities in the region
- Fuel wood trade a major source of livelihood
- Conservation will require foregoing some economic benefit



Green entrepreneurship- Case 1-

Pterocarpus marsupium

- *Pterocarpus marsupium*- a native tree found in Western Ghats of India. Traditionally known for timber and livestock fodder
- IUCN redlist status- vulnerable
- Current use- indiscriminately felled and sold as timber at few places and fire wood at other places.
- Recent discoveries about its use in treatment of diabetes highlights value addition potential
- Our approach- cost benefit analysis , value addition through new product development



Green entrepreneurship- case 2-

Terminalia bellirica

- *Terminalia bellirica* is large deciduous tree mainly found in North Western Ghats. It is also distributed in eastern and central parts of India
- Traditionally the fruits of this tree find use in the Indian System of Medicine – Ayurveda- since ages for making *Triphala*.
- In absence of attractive market price for collection of fruits, communities sell this tree for making truck bodies.
- This giant tree with natural cavities is preferred nesting tree of Great Hornbill and Malabar pied hornbill in the NWG.
- Our approach- promote sustainable collection of fruits using FAIRWILD certification protocol backed by premium price (2 times the market price) and long term purchase agreements with local collectors.



Impacts for conservation and livelihoods

- Total 600 large trees of *Terminalia bellirica* from 20 villages have been saved.
- About 300 mid sized trees of *Pterocarpus marsupium* have been saved in three villages.
- 28 nesting sites of Malabar pied hornbill and 5 nesting sites of Great hornbill are conserved.
- Sustainable livelihood opportunities created for 100 marginal farmers and 10 unemployed youth through collection and processing of fruits as well through making of tumblers.



Green entrepreneurship- case 3- Native species based bio-fuel production

- Bio-fuels are considered as scalable climate change mitigation alternative world wide.
- However, implementation of this strategy is mired with controversies- food v/s fuel debate, loss of biodiversity due to monoculture plantation , water scarcity
- Our approach- conduct survey of native oil seed bearing species (200) , select areas with maximum resource availability, set up decentralized bio-fuel production centers and build capacity of local communities in entrepreneurship .



Impacts for conservation and livelihoods

- Conservation of populations of high conservation value bio-fuel feedstock species- *Pongamia pinnata*, *Madhuca indica* and *Calophyllum innophyllum*
- Sustainable livelihood opportunities created for 200 marginal farmers through collection and processing of oilseeds.
- Environmentally sustainable energy alternative created at the doorsteps of remotely placed communities.

Thank you

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