

Agasthiyarmalai Biosphere Reserve (WNBR)

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Key Messages/Lessons learnt

- Perennial Water flow allows enhancing the connection between people and landscape as it is their lifeline.
- Awareness creation and community mobilization at various levels from known to unknown and emotional to intellectual levels is essential for promoting active participation of people in biodiversity conservation.
- Sustainable biodiversity conservation in 400 sq.km is possible in contiguous landscape without biotic pressure such as roads and habitations of the biosphere reserve.
- Constitution and sustenance of dynamic grass root level people institutions at the fringe village level to shoulder the responsibility of biodiversity conservation and livelihood improvement through Eco development measures.
- The forests of the biosphere reserve have a strong biological link to Sri Lankan rain forest and conservation of high level of plant diversity and endemism including threatened and endangered species for sustenance of ecological services which are crucial to ensure participatory biodiversity conservation

Biosphere Reserve description

The Agasthiyarmalai Biosphere Reserve (ABR) is located in the Southern most end of the Western Ghats with a towering Agasthiyar peak of 1868 m from MSL. ABR has been recognized as World Natural Heritage Site in 2012 and the Biosphere Reserve has been included in the World Network of Biosphere Reserves in 2016. Extent of the reserve in Tamil Nadu is 1672.36 sq.km with 783 sq.km of core area. Biogeographically speaking, Agasthiyarmalai is one of the important 'Hot Spots' in the Western Ghats. It is an Epicenter of plant diversity and endemism. Tamil Nadu part of ABR harbors 2254 species of higher plants, which includes about 405 endemics. This

reserve with perennial river Tamirabarani is a backbone for drinking water and agriculture.

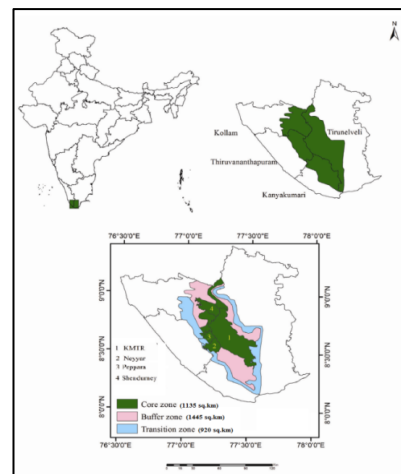


Figure 1: Location map of the Agasthiyarmalai Biosphere Reserve (ABR)



BR challenges

- Presence of enclaves in part of the reserve
- Pilgrimage pressure
- Inaccessible terrain
- Sustainability of participatory biodiversity conservation
- Mainstreaming biodiversity conservation
- Subsistence level of Agriculture
- Impact of Global warming and climate change

Initiatives/Actions on SDG 17 : partnerships for goals

Partnerships with the fringe villages of Agasthiyarmalai Biosphere Reserve have been made since 1995 to achieve the goal of biodiversity conservation through Eco development measures.



Figure 2: Community & Forest Official interactions in a common platform

Under the World Bank aided Eco development Project for biodiversity conservation implemented from 1995 – 2001, 132 grass root level institutions constituted to participate and implement reciprocal agreements of livelihood improvement and Protected area management for sustainable biodiversity conservation.

Support from Government through Plan schemes, mainly Project Tiger scheme,

from 2002 – 2014, 116 grass root level institutions constituted in the fringe villages of the Biosphere Reserve. Communities were reached right at the doorstep and face to face interactions held which enabled high level of trust and credibility building.



Figure 3: Dialogue on Forest **perambulation** mesures



Figure 4: Biosphere Reserve and People Connect Oath

11 Non- Governmental organizations have actively participated in the Eco development initiatives undertaken to reduce dependency on the reserve.

- Educational institutions, Eco clubs, National Social Service and civil societies participated in conservation initiatives



- Various levels of Officials of the Forest Department, Principal Secretary, Environment & Forests, World Bank Officials etc shared a common platform – sitting on the ground, which enabled higher level of participation of people and keeping away of negative elements of development.
- From 2015 to 2018, under the World Bank aided Biodiversity Conservation and Rural Livelihood Improvement Project 57 grass root level institutions constituted. Throughout the Biosphere Reserve, the active participation of people was enabled through awareness creation and community mobilization by undertaking alternate income generation activities. Participatory biodiversity conservation measures included fire line creation and maintenance, invasive species removal, removal of plastics and keeping the forest hygiene, pilgrims management, joint perambulation and participation in anti-poaching camps. These actions not only lead to partnerships with the people to achieve conservation of the biosphere reserve but also enabled drastic reduction and elimination of forest dependency of the people.



Figure 5: creation of carbon sink

Practical Outcomes/Achievements

- 57 participatory people's institutions constituted in the villages located

- within 5 km from the Biosphere Reserve boundary
- 21,960 highly forest dependent Village Forest Committee members have undertaken alternate income generation activities and their dependency on fuel wood removal, NTFP collection and fodder removal on the Biosphere Reserve eliminated.
- 2281 forest dependents have been imparted with skill training for undertaking alternate income generation activities.
- Implementation of Eco development initiatives with active participation of people enabled improvement in education with 9019 students got assistance for education.
- More than 500 awareness creation and community mobilization programmes conducted in the fringe villages of the Biosphere Reserve by Arumbugal Trust, a Tirunelveli based NGO.
- More than 100 biotic pressure trails on the eastern boundary of the reserve got restored with indigenous vegetation.
- Grazing has been reduced totally with only occasional straying of cattle inside the reserve.
- Habitat in the Mundanthurai plateau restored resulting into movement of India Gaur, Elephant and Tiger.
- Participatory biodiversity conservation along with strict protection measures resulted in total prevention of poaching and Ganja cultivation.
- Through credibility building measures, addressing livelihood concerns through micro credit reduced forest dependency, human-wildlife conflict and enabled community support and participation in conservation.

Women participation in the conservation initiatives enabled livelihood improvement and participatory biodiversity conservation and thus women empowerment.

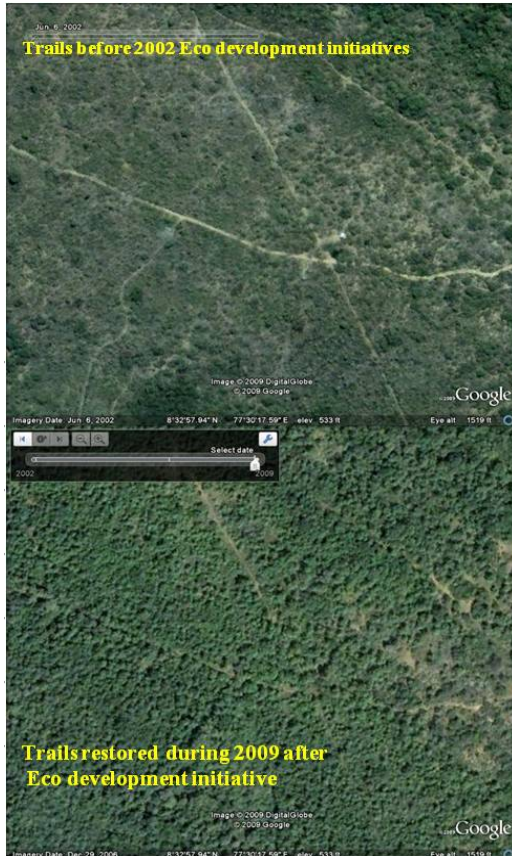


Figure 6: The impact of eco-development initiatives in the ABR

References

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2. Implementation Completion Report, Forestry Research education and extension project, October, 1999
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Acknowledgements

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