

Restoring mangroves eco-systems saves the coastline and community

MSSRF initiatives of Joint Mangrove Management along the coastal areas of India brings a sense of ownership among coastal communities

2025 ha
Area
restored

Context ●●●

Mangroves are a group of trees and shrubs situated along the tropical coastline of India, that flourish in low-oxygen soil, where slow-moving waters allow fine sediments to accumulate. Mangrove plants have unique adaptation properties that allow them to survive in harsh environments. Ecologically speaking, they provide habitat for a diverse array of terrestrial and marine organisms. The mangrove ecosystem is an important wetland system that provides not just livelihood security to coastal communities, but also ecological security along the coastline.

They provide more than 70 ecosystem services to the coastal community including reducing the impacts of climate change. Despite these services, globally they are a highly exploited ecosystem. Along the East Coast of India, most of the degraded areas are due to changes in hydrology and topography resulting in lack of proper tidal water flushing, leading to hypersaline conditions of the soil.

“Mangrove ecosystem is an important wetland system that provides not just livelihood security to coastal communities, but also ecological security along the coastline”



●●● Intervention

MSSRF is implementing mangrove conservation and management programmes since 1990 involving multiple stakeholders namely the state forest department, revenue department, local Panchayat Raj institutions, and the community. The local community are mobilised into village-level institutions (with equal representation of men and women) to plan, implement and monitor mangrove conservation activities. The degraded mangrove areas were restored through digging shallow canals to facilitate tidal water flow into the degraded area, reducing soil salinity. Saplings were planted along the canals and the local community played an active role in mangrove restoration works.

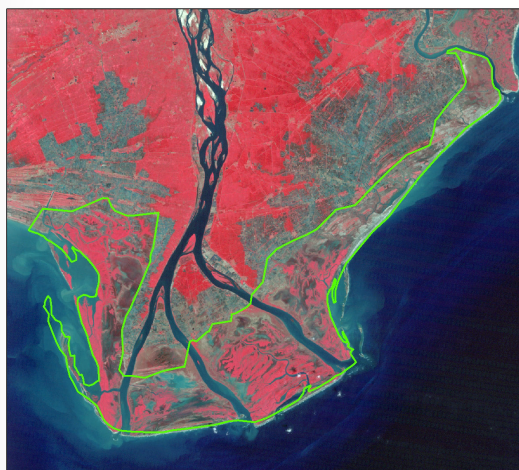
Since
1993



KRISHNA MANGROVE WETLAND

1996

2022



Source: Landsat-5, (30m, MSS, 10/11/1996)



Source: Sentinel-2, (10m, MSS, 01/03/2022)

0 5 10 20 Km

Our
Results
1993 -
2021

Outputs

MSSRF restored about 2025 ha of degraded mangroves in the state of Andhra Pradesh, Maharashtra, Odisha, and Tamil Nadu through a participatory approach. Training and capacity building on leadership skills, mangrove silviculture, and participatory methods empowered the community to successfully restore mangrove areas along the coastline

Outcomes

Mangrove restoration activities not only provided employment, but also provided a sense of ownership over the restored area. Participatory methods and strategies exercised by MSSRF guided the planners to successfully restore large areas across the East Coast of India. Mangrove cover increased in almost all the coastal states in India, thanks to several mangrove restoration efforts undertaken by both the government and NGOs.

Further Reading

- * M. S. Swaminathan Research Foundation. 2002. The Mangrove Decade and Beyond: Activities, Lessons and Challenges in Mangrove Conservation and Management, 1990–2001. Manual no.5. MSSRF, Chennai. 40pp.
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- * Ravishankar, T., M. Navamuniyammal, L. Gnanapazham, Satyashree Nayak, Gopal Chandra Mohapatra and V. Selvam. 2004. Atlas of Mangrove Wetlands of India: Part 3 – Orissa. Monograph no.17.M.S. Swaminathan Research Foundation, Chennai. 102pp.
- * Ramasubramanian, R. and T. Ravishankar. 2004. Mangrove Forest Restoration in AP, India. Manual no.13. M. S. Swaminathan Research Foundation, Chennai. 26pp.
- * Selvam, V., L. Gnanappazham, M. Nava-muniyammal, K. K. Ravichandran and V. M. Karunakaran. 2002. Atlas of Mangrove Wetlands of India: Part 1 – Tamil Nadu. Monograph no.10. MSSRF, Chennai. 99pp.

Tamil Nadu (1993–2018)

Ennore, Pichavaram, Muthupet, Kattumavadi, Manamelkudi, Karankadu, Muthuregunathapuram and Keelavaipar– Cauvery, Kosasthalaiyaru, Vennar, Kottakaraiyaru and Vaigai river estuaries

900 ha
Area restored

Andhra Pradesh (1999–2002, 2017–2021)

Matlapalem, Korangi (Dindu), Kobbarichettupeta, Gadimoga, Bhairavallanka and Chollangipeta – Godavari river estuary
Deenadayalpuram, Zinkapalem, Nali, Sorlagondi, Basavanipalem – Krishna river estuary

860 ha
Area restored

Odisha (1996–2004)

Kalatunga, Kharinasi Ward No-6, Badatubi, Jamboo, Dhanuharbellari, Kerabellari, Amarapat, Naupal, Sharatprasad and Shashikadeipur – Mahanadi, Devi and Dhamara River estuaries

240 ha
Area restored

Maharashtra (2017–2020)

Thane river estuary

25 ha
Area restored

CONTACT US

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