

Final Outcome

THE ECOLOGICAL CRISIS OF

CORAL TRIANGLE



Waterfall

2030'S

2030 Due to unforeseen circumstances, the Sunderbans mangroves starts to decline in cover. Urbanisation and development becomes unchecked as a result.

Loss of habitat for numerous plant and animal species affecting biodiversity. The reduction in mangrove cover results in elevated co2 levels in the atmosphere.

Communities reliant on Sunderbans Mangroves for their livelihoods face displacement. The absence of mangroves natural barrier causes problems.

This also impacts the resilience of coastal tech installations.

2032- Disruption in the mangrove food chains starts to affect other ecosystems. The loss of mangroves affects fisheries. Thus, decline in fishery resources happens as a result. Communities reliant on fish as a staple resource may have to explore other alternative protein sources. Technology will then explore developments in aquaculture and sustainable practices.

2034 Loss of mangroves contributes to increased soil erosion along coastal areas. Thus, local climate patterns shift impacting water and agriculture. Cultural adaptations will be required and resettlement. Advanced satellite monitoring and predictive analysis technologies will be required to anticipate and predict soil erosion along coastal areas.



2010'S

2011-Restrictions imposed on industries and other harmful activities.

Loss of 3.4km² observed in A&N Islands.

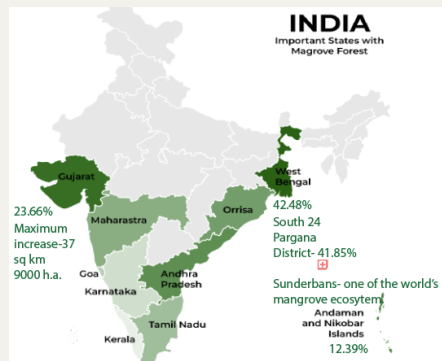
2017-Mumbai mangrove cover starts to increase towards the later years.

2018-Illegal exploitation of Mumbai Mangroves policy in effect.

1990'S

1987-Extraction of mangrove wood was banned.Sunderbans National Park was made into a National Heritage Site.

Past



Current Mangroves India

1970S

Koliwada Communities had a good supply of fish then.

Mangrove ecosystems were mostly undisturbed.

Final Outcome

2030's- Selected Sequence

2038 - Invasive species crisis in 2036 triggered by disruption of Sunderbans mangroves reaches the Coral Triangle, an ecological hotspot interdependent on the Sunderbans ecosystem. Marine diversity is thus impacted. Changes in the marine environment impacts coral health.

Adaptive measures within communities residing in and around Coral Triangle. Traditional practices & knowledge could be integrated in conservation efforts.

Technological innovations will focus on coral monitoring technologies, underwater drones, remote sensing devices and closely monitoring the health of corals.

2030's

2036

The domino effect spreads to different ecosystems across the region. Species migrating from the affected regions may lead to competition or extinction elsewhere. Efforts to revive and integrate traditional ecological knowledge into contemporary conservation practices may become more pronounced.

Local communities may play a vital role in preserving and passing down knowledge about the interconnectedness of species and ecosystems.

Advanced technologies for monitoring biodiversity may become essential.

Surveillance systems, satellite imaging, and data analytics could be employed to track the movement of species and assess their impact on different ecosystems. Early warning systems may be developed to mitigate the risk of invasive species.

Present & Near

2020'S

2020 India is now making conscious efforts to protect and conserve its mangrove cover.

Clean ups efforts are more prominent.

2022 Forest departments have been preserving Nicobar Island Mangroves and growing mangrove plantations.

2024 Permission for 1000 h.a. of mangrove cover and maintenance proposed for 2024 in Sunderbans.

2024 Mishti program announced for restoration and afforestation efforts.

2026 Linear planting of mangroves on a 20 km stretch of the coastline will be completed. Mishti project will start ecotourism initiatives for 2026.

2028 Mishti program review takes place in 2028. Only 20% of goals have been achieved.

Urbanisation and development become unchecked as a result.

2000'S

Policies coming in action to establish mangroves coastal protection zones.

Urbanization and development still continues and results in 22400 loss of mangroves.

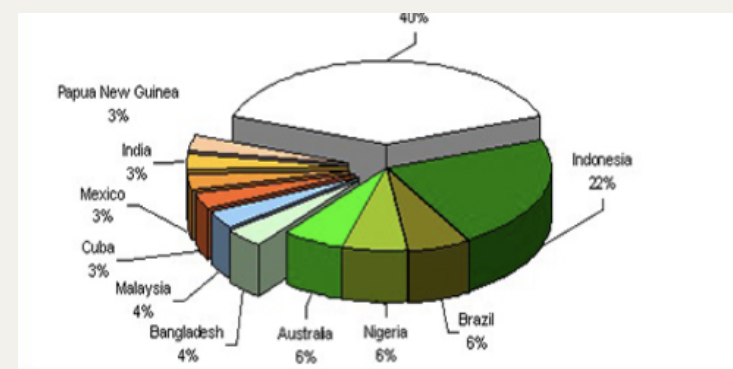
2004 Tsunami disrupts A&N Islands.

2005 Mumbai faces flooding that reiterates the increasing role of mangroves in protecting cities.

1980'S

Mangroves while still plenty, settlers came in and this resulted at the end of the 80's in a 40% decline of mangrove cover in India.

A&N Islands mangrove cover was lost by 7000 h.a..



Current World Mangroves