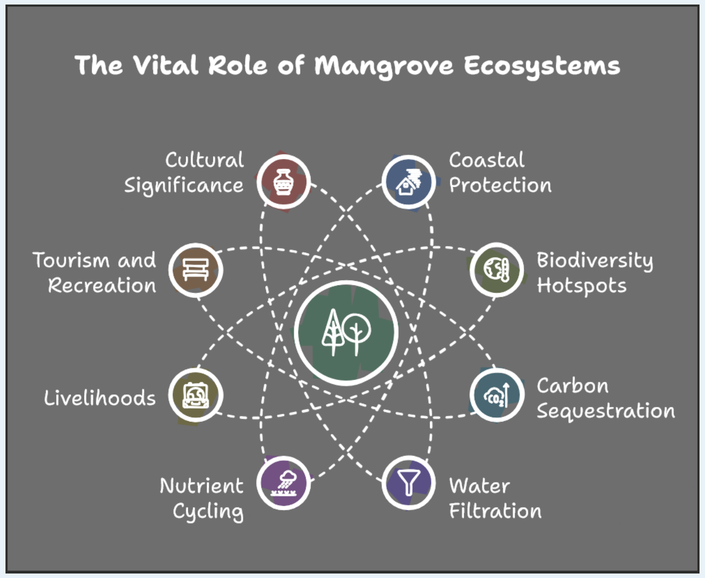
MANGROVE CONSERVATION AND LIVELIHOOD TRANSITIONS THROUGH COMMUNITY PARTICIPATION: A STUDY FROM SINDHUDURG DISTRICT OF THE WESTERN GHATS OF MAHARASHTRA

Mayuresh Bhise* , Prof. Sailaja Nandigama* , Nikhil Nikam#

***Dept of HSS, BITS Pilani, Pilani Campus, # Research Associate, Watershed Organization Trust (WOTR), Pune**

Introduction

- Mangrove ecosystems are vital coastal habitats that play a crucial role in maintaining **ecological** balance, supporting **biodiversity**, and providing numerous **benefits to the communities**.
- These unique environments, characterized by s**alt-tolerant trees and shrubs**, serve as a buffer between land and sea, protecting coastlines from erosion and storm surges.
- Mangrove ecosystems are **vulnerable** due to unsustainable management, pollution, changes in land use policy, and diversification of resources for ever-ending demand from increasing population.
- Sindhudurg is a **coastal district** located on the southern side of Maharashtra state, and it is part of the Western Ghats with a mangrove cover of 11.32 km^2 area
- Agriculture, fisheries, and forests serve as the primary source of livelihood for the people of Sindhudurg



Research Methodology

Nature	Particulars
Approach	Mixed-methods approach
Type of Data	Both, i.e. Primary and Secondary
Primary Data	• Local Communities • Local resource persons • Various Government officials
Secondary Data	• Official reports and government records, ISFR data • RTIs, Scholarly articles, books, and other secondary sources
Research Design	Exploratory research, mixed methods research design
Sampling	Cluster, Purposive, Snowball Sampling
Research Methods	• Survey Method (Quantitative) • Interviews, FGDs, Participant Observation (Qualitative), • Transect Walk, Mapping Methods (Resource, Mobility, Social), Seasonal Calendar and Trend Analysis (PRA)
Fieldwork	Three planned phases. • The first phase- Pilot Study- Jan- Feb 2020 • The second phase- Oct 2020 to Feb 2021 • The third phase- September- October 2021
Data Collection	Using Open Data Kit (ODK)
Data Analysis	IBM's SPSS, MS Excel and QGIS

We acknowledge the organizing committee and sponsors, for the event. We also appreciate for assistance in providing travel and logistics support and for a platform for the sharing of research findings.

For references, feedback, suggestions, and further readings, please scan the QR code.

Process

- The study highlights the participatory contribution and effectiveness of key stakeholders in mangrove conservation efforts.
- These efforts include **encouraging community participation** and providing training and advocacy to forest officials, local villagers, and self-help groups.
- These activities also focused on the identification, protection, and management of **endangered and vulnerable** species.
- Additionally, forest officials are trained to **foster nurseries** required for mangrove plantations; they also work with the local villagers for **mangrove sapling plantations** and coordinate with the stakeholders to **monitor** the progress.
- Traditionally, these communities were dependent on **fishing and rice farming** and became **vulnerable** due to extreme weather events caused by climate change.

Results and Conclusion

- Focused activities resulted in the **overall improvement of mangrove forests** and **biodiversity** in Sindhudurg while creating new livelihood opportunities for the dependent communities.
- The new opportunities are **ecotourism through mangrove safari services, kayaking, bird watching**, etc, while ensuring the protection of mangroves and limiting overtourism and overexploitation.
- These resulted in stable economic output which covers the basic needs and **enhanced income security** of local communities through sustainable use.
- Also, these efforts are crucial as they increase biodiversity, which enhances the **food security** of the local communities.
- Environmental benefits through **protection and conservation** of biodiversity and mangrove areas.
- Protection from rising sea levels, storms, and destructive waves and decrease in shoreline erosion and slower tidal flow.
- Improved **coastal resilience** against climate change and extreme weather impacts.