

- Features**
- Dynamic geo-morphology
 - Largest contiguous mangrove forest in the world
 - World Heritage Site and Tiger Reserve
 - Biodiversity hotspot
 - Climate Change threats
 - Dense population and anthropogenic stress



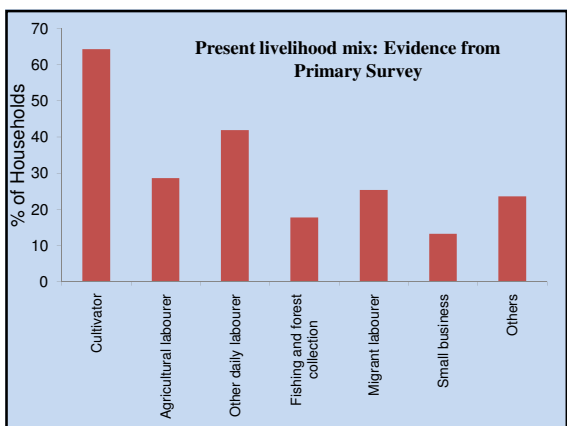
Population Dynamics

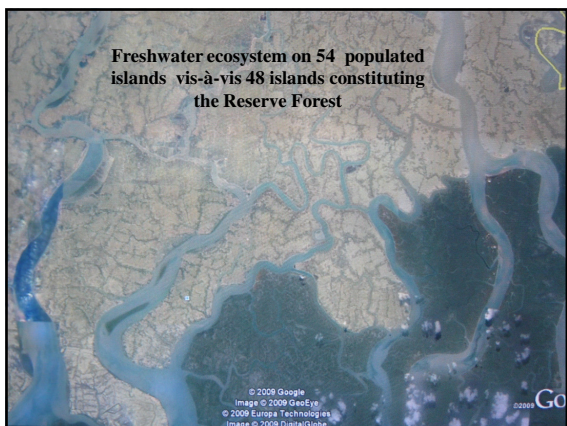
- Population settled on immature islands
- Naturally susceptible to major natural disasters (tsunami, storm surges, land subsidence)
- Historical evidence of depopulation and repopulation
- Predominance of agricultural – single annual crop
- Present population is recently settled
- High population growth rate in past decades
- Increasing trend of outmigration over last decade (unsustainable livelihood?)

Determinants of Rural Livelihood Profile

- Natural Resource Base
- Governing Institutions
- Human capital
- Historical inheritance:
 - small landholding
 - without indigenously developed rules for sustainable use of NR











Threats to the local population

- Threats from CC prediction:
 - SLR
 - Cyclonic Storm surges and land erosion
- Threats to biodiversity:
 - Over-exploitation of natural resources



Extent of damage to biodiversity

- Extinction of species within last two centuries
- Timber yielding varieties of mangroves are almost non-existent
- Drastic fall in fish species and density

Interventions

- CC threats:
 - plan to build larger and stronger embankments

Biodiversity Loss:

- strict protection of reserve forest and core area
- provision of alternative livelihood for fringe population by Govt. and NGOs

Weakness of the measures:

- land acquisition issue
- little understanding of local livelihood dynamics

Planned Protection of Mangroves

- Very little understanding of Sundarban's mangrove ecosystem by foreign/outside 'experts'
- Measures undertaken by outside agencies are not well informed about ground level realities
- Programmes for mangrove plantations are often ill conceived
- Best way to preserve mangroves is to leave it to the nature itself

On the debate of future of Sundarban

- In-situ protection or outmigration?
- Restricting livelihood or restricting natural resource exploitation?
- Research Gaps
