# Culture, Climate Change, and Water Conservation: Water ecosystems and culture base adaption practices in Bangladesh

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#### **Background and context**

Climate change is global.

Its effects are mostly cultural and social and embedded in modes of production.

The impacts of climate change vary from place to place in relation to its socioeconomic condition and geographical positioning.

#### **Background and context**

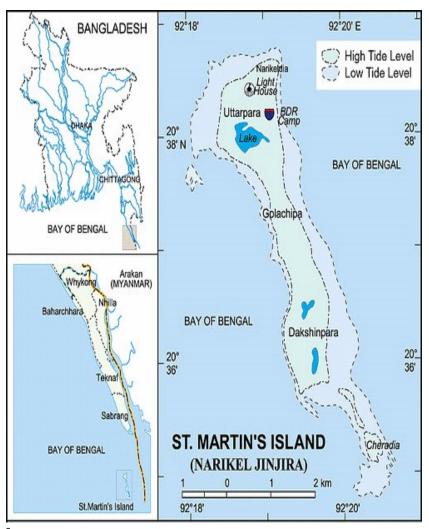
Climate change will affect everything and everyone; water will be affected most.

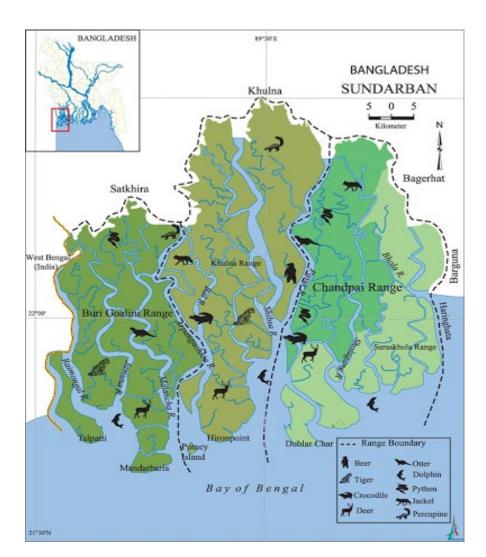
40% of the global population lives within 100 km of the coastal zone. In Bangladesh, 29% exclusively depend on coastal resources.

Bangladesh is one of the most climate-vulnerable countries.

#### Research Site

#### Bangladesh: Saint Martin, Sundarbans





#### **Livelihoods and Occupations**



Pic 1. Tiger widow



Pic 3. Honey Collectors



Pic 2. Fishing boat



Pic 4. Sundori (Logged)



Pic 5. Part of sundorban during tide



Pic 7. Algae



Pic 6 Fry collection (Child Labor)

## **Objectives of the research**

- 1. In the climate change scenario, how is the meaning of water constructed in everyday life?
- 2. How is it reflected in social, cultural, and economic activities of two different environmental settings and communities?

- 3. What knowledge do local people have about their historical practices of water conservation? What is their perception of present-day climate change?
- 4. What comparative data exist regarding the nexus between water conservation and climate change along with its impact on cultural practices?

- 5. Do people of different biophysical environments, gender, age, occupational group, and religion have similar concepts and perceptions of climate change, culture, and water conservation?
- 6. What are good practices in the communities regarding water conservation and climate change adaptation?

# Methodology

Grounded theory approach

Use of Mixed Methods i.e. Qualitative and Quantitative

Observations, semi-structured interviews, focus group discussions (FGDs), review documents

Identification of the dynamics between social and cultural systems and water ecosystems

Water-related environmental and livelihood risks as perceived by the different communities across the coast (connected to algae, fish, wood, honey, and farming)

Knowledge of how water ecosystems and their climaterelated changes shape cultural, social, and economic systems

Possibilities and problems of developing community resilience in conditions of water ecosystem change

Identification of alternative employment opportunities without harming ecosystems and nature

Transferable and scalable knowledge related to water, culture, and social resilience

Specific adaptation measures with a focus on specific locations, regions, and communities

Opportunities and challenges for ecosystem-based conservation practices

How do attitudes, beliefs, and cultural practices restrict the development of sustainable conservation practices?

## Possible application of result

New social knowledge and technologies for conservation of the water and ecosystem base

achieving sustainable development goals (SDGs) 13, 6, 14, 15, and 2

## Possible application of result

Useful document for formulation of coastal resource use and sustainability manual i.e. water, coastal resource management, and climate change

#### Possible application of result

Enhanced ecotourism business and creation of new employment, thus alleviating poverty

A useful document for future research reference in the field of water, climate change, and sustainable development

#### Conclusion

Natural climate change has shifted to anthropogenic.

Overuse of resources and irrational consumption by groups of people threaten the whole planet.

Poor countries and communities are more at risk.

A comprehensive and integrative policy and plan are key to combat climate change.

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