Highlights from the DEltas, vulnerability and Climate Change: Migration and Adaptation (DECCMA) project

Study Site Definition

Volta Delta, Ghana
Economy: Agriculture, salt mining
Area: 4,562 Km²
Pop: 850,000

GBM Delta, Bangladesh and India
Economy: Agri-/Aqua-culture, fishing
Area: 51,486 Km²
Pop: 56.7m

Mahanadi Delta, India
Economy: Agriculture
Area: 13,054 Km²
Pop: 8.1m

Threatened DELTAS (Ericson et al, 2006)
Our team

Headline Activities

- Key Stakeholder identification
- Hotspot hazard mapping
- Delta level economy defined
- 5430 sex disaggregated household surveys in ‘sending areas’ (and women in male-headed households)
- 2675 questionnaires with migrants in ‘receiving areas’
- Adaptation inventories compiled
- Set up biophysical models and an integrated assessment framework
- Reviews of governance and policy
Impacts of 1.5°C temperature increase

Average decadal mean area inundated due to monsoonal flooding without additional protection under a 1.5°C, 2°C and 3°C increase in temperature


Environment is a proximate cause of migration

Main reason for migration across all four deltas as reported by household heads (N=1803)

Displacement

Displacement in Sagar, IBD, India

Section of Beguakali unaffected by saltwater flooding

Section of Beguakali affected by saltwater flooding

Government action and inaction

Beguakali, busy embankment construction at site selected for port development

Once fertile Dhablat, unprotected by new embankment


Structure of the DECCMA Integrated Assessment Model

Stakeholder Engagement

- Dynamic Stakeholder Mapping
- Identification of key-users
- Multi-Scale Engagement
  - National (or State)
  - District
  - Community
  - Expert
- Governance analysis, barriers to implementation of adaptation policy, criteria for successful adaptation

Volta-Raising the profile of delta residents with parliamentarians

Drones on the delta in Ghana

In Ghana’s Volta River delta, the remotely-operated aerial vehicles are giving researchers an insight into study coastal erosion, flooding and migration.
GBM-inputs to Delta Plan 2100

Photo: Saiful Alam

Mahanadi-requested to provide inputs to policy and highlighting delta migration

Photo: Andrew Allan
Indian Bengal delta-partnership with State Department of Environment

Workshop jointly hosted by the State Department of Environment and DECCMA, November 2014

Outputs and Materials

Posters
Multimedia Footage
Website & blog

www.deccma.com  Twitter @DECCMA
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Thank you!