



How the BOBLME SAP responds to Climate Change effects in the Bay of Bengal

Rudolf Hermes

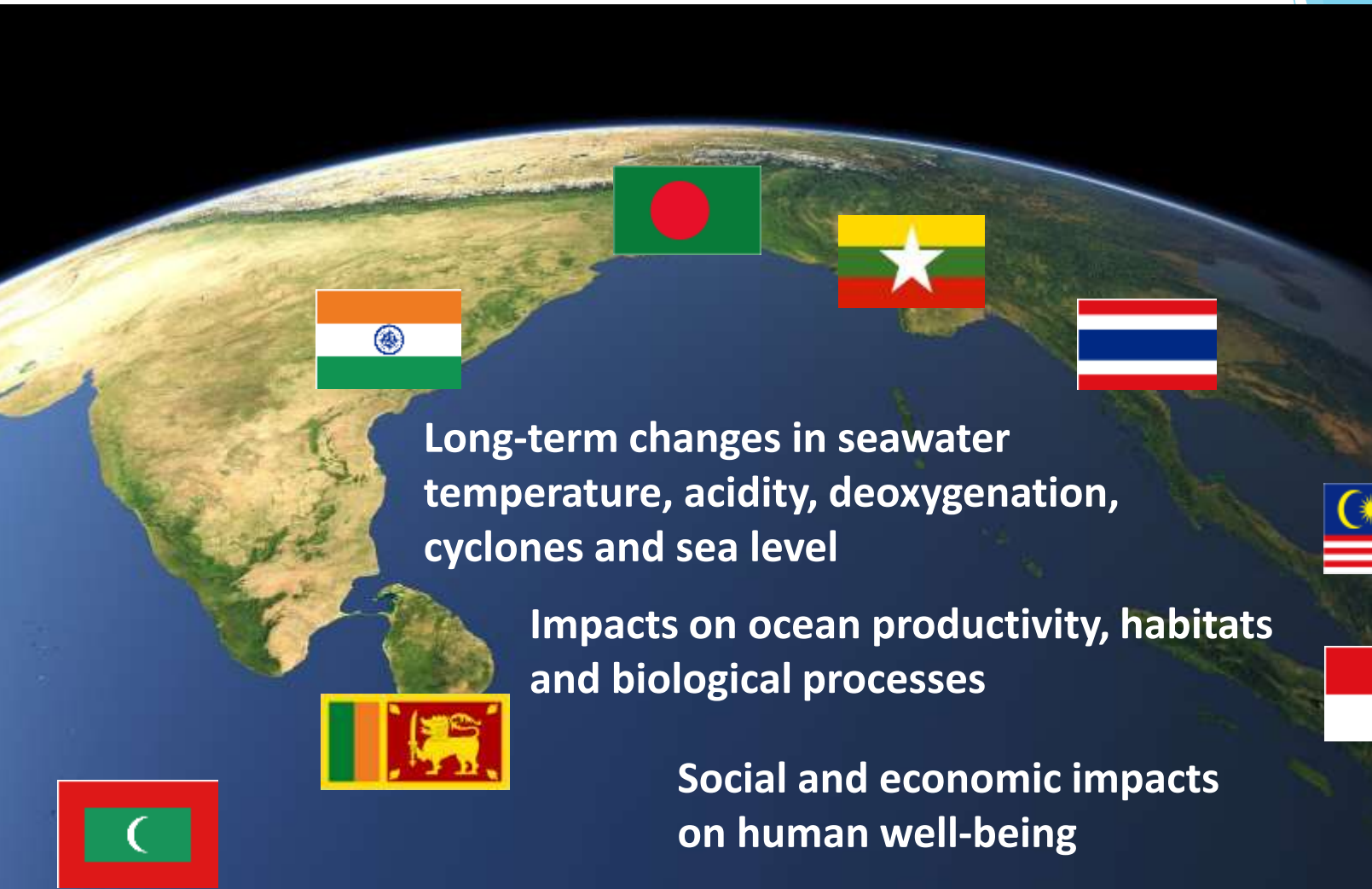
Bay of Bengal Large Marine Ecosystem Project

Session 7 - Integrating Climate Change and variability in LMEs

1 October 2015



Climate Change: What we expect to see in the Bay of Bengal



Climate Change: What we expect to see in the Bay of Bengal



- **Distributional and phenological changes in fish species**
- **Increase in frequency and intensity of coral bleaching**

Fisheries, particularly small scale traditional fisheries (SSF), will be the most vulnerable to climate change

Aquaculture will experience changes in hydrology and therefore availability of water, physical threats to aquaculture facilities, and prevalence or spread of known and new diseases of aquatic organisms

Most important and critical adaptation measures:

- **Develop human resources capacity to increase understanding of large-scale processes and the marine resources**
- **Implement measures to sustainably manage fisheries**
- **Reduce vulnerability to climate change impacts**

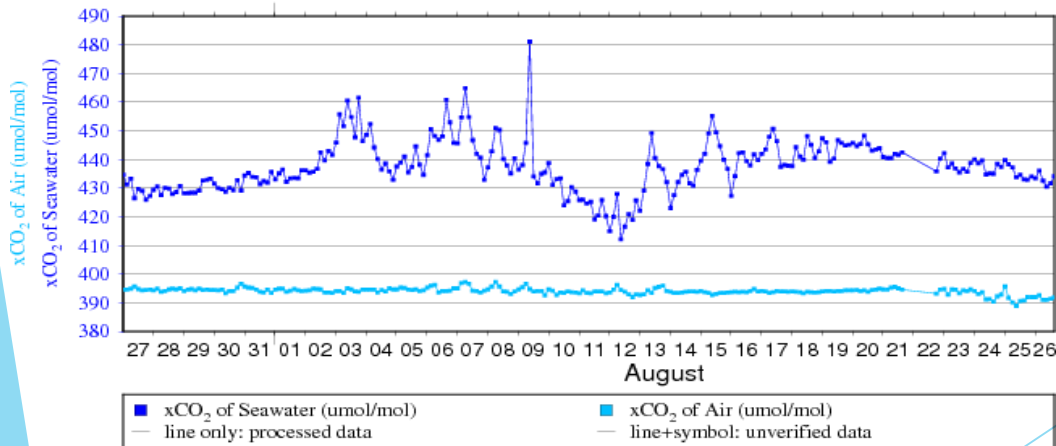
Climate Change: How the BOBLME Project has responded so far



Contribution to the understanding of large-scale processes and climate change effects

- Working Groups on oceanography, climate change, and ecosystem health
- Associate membership of the Indian Ocean Global Ocean Observing System (IOGOOS)
- Participation in UNESCO-IOC WESTPAC training (MOMSEI)
- Collaboration with Sustained Indian Ocean Biogeochemical and Ecological Research (SIBER)
- Provision of biogeochemical sensors to the BOB RAMA moorings (<http://www.pmel.noaa.gov/co2/story/BOBOA>)

$x\text{CO}_2$ of Seawater & $x\text{CO}_2$ of Air @ BOBOA (90E, 15N)
 [Date: 2015-07-27 to 2015-08-26]

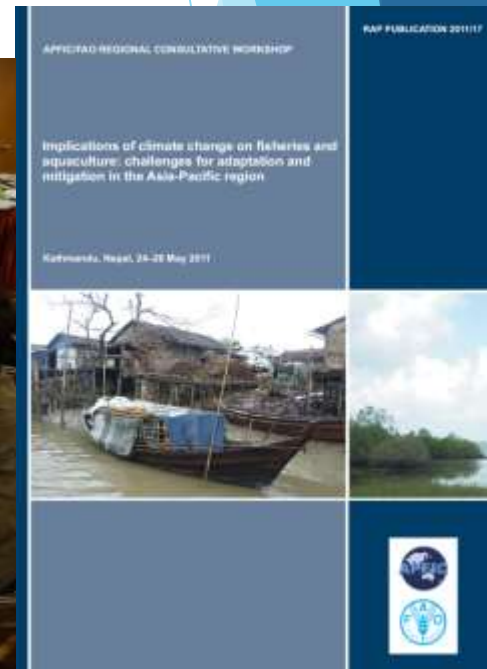


Climate Change: How the BOBLME Project has responded so far



Contribution to adaptation by addressing habitat degradation, pollution and fisheries management, as well as developing capacity and resilience of coastal populations

- Collaboration with Asia-Pacific Fisheries Commission (APFIC), Global Partnership Climate Change, Fisheries and Aquaculture (PACFA)
- Promotion and capacity development for an Ecosystem Approach to Fisheries Management (EAFM)
- Advocacy for inclusion of fisheries in National Adaptation Plans of Action (NAPA)



Climate Change: BOBLME Strategic Action Programme (SAP)



Overall SAP Vision:

“A healthy ecosystem and sustainable use of marine living resources for the benefit of the people and countries of the Bay of Bengal LME”

Theme 4 SAP Objective (EcoQO)

“Social and economic constraints are addressed, leading to increased resilience and empowerment of coastal people”

Reduce vulnerability to natural hazards, climate variability and climate change, and increase climate resilience (Objective 1 of 3)



Climate Change: BOBLME Strategic Action Programme (SAP)



Fisheries, Habitats, and Large-scale processes

Incorporate the Code of Conduct for Responsible Fisheries (CCRF), including the Ecosystem Approach to Fisheries Management (EAFM) in national fisheries legislation and address climate change issues in policies and management plans

Improve information on the impacts of climate change and options for climate change adaptation and mitigation

Develop expertise in climate change adaptation and mitigation

Estimate the carrying capacity of critical habitats, with emphasis on habitat connectivity and the possible impacts of climate change

Bay of Bengal Large Marine Ecosystem

Strategic Action Programme
2016



Climate Change: BOBLME Strategic Action Programme (SAP)



Social and economic considerations

Climate and hazard proof regional strategies, management plans and arrangements by incorporating information such as uncertainty, species distribution shifts and changes, human migration

Provide regionally coordinated support to national programmes on reducing risks associated with fishing and fish farming in a changing climate

Support decision-making by linking information from climate and bioclimate models

Deliver a regionally coordinated capacity development programme on natural hazards, climate change and climate variability implications, vulnerabilities and adaptation planning for fisheries and coastal communities



Climate Change: BOBLME Strategic Action Programme (SAP)



SAP Implementation:

**“Consortium for the Conservation and Restoration of the BOBLME”
(CCR-BOBLME)**

IOC Sub-Commission for the Western Pacific (UNESCO-IOC WESTPAC)

IOC Perth Programme Office (UNESCO-IOC PPO)

Indian Ocean Global Ocean Observing System (IOGOOS)

Indian Ocean Rim Association (IORA)

National Oceanic and Atmospheric Administration (NOAA)



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