

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

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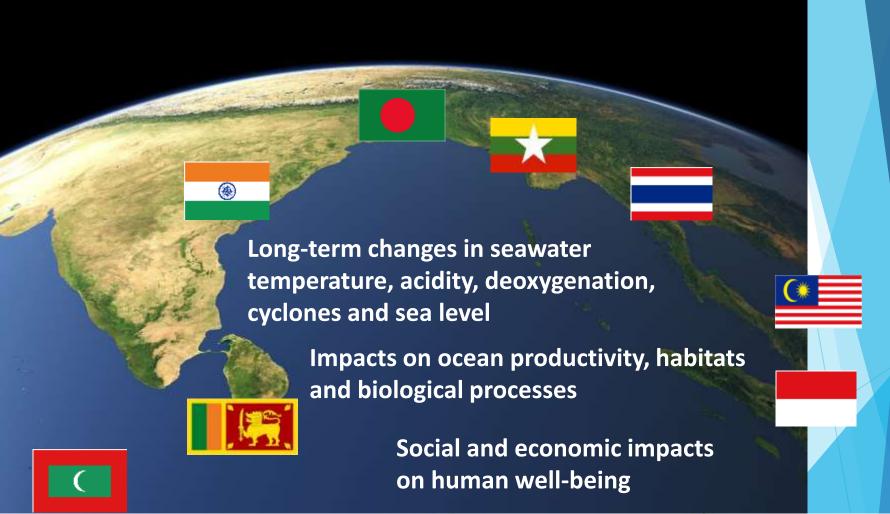






What we expect to see in the Bay of Bengal





















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

<u>Fisheries</u>, 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

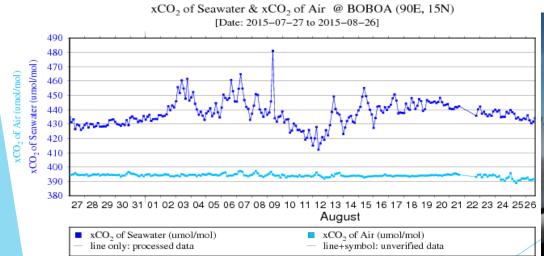


How the BOBLME Project has responded so far



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)







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)



HOMEHOP

Implications of climate change on flateries are squaculture: challenges for adaptation and nutigation in the Asia-Pacific region

Katomenta, Head, 24-25 May 2011







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)

Theme:
Marine living resources

2 Theme: Critical habitats

Theme: Water quality 4
Theme:
Social and economic
considerations

ECOSYSTEM QUALITY OBJECTIVE

Fisheries and other living marine resources have been restored and are managed sustainably

ECOSYSTEM QUALITY OBJECTIVE

Degraded, vulnerable and critical habitats

are restored, conserved and maintained

- Protect, manage and restore mangrove habitats to increase mangrove coverage and improve biodiversity
- Restore, protect and sustainably manage existing coral reef ecosystems, habitats and associated biodiversity, and prevent pollution and destructive
- Protect and manage seagrass habitats and associated biodiversity (maintain and increase extent and biodiversity)

ECOSYSTEM QUALITY OBJECTIVE

Coastal and marine pollution and water quality are controlled to meet agreed standards for human and ecosystem health

OBJECTIVES

- Reduce or minimize the discharge of untreated sewage and waste water into river, coastal and marine waters
- 2. Reduce and minimize solid waste and marine litter
- Reduce and control nutrient loading into coastal waters

ECOSYSTEM QUALITY OBJECTIVE

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

OBJECTIVES

- Reduce vulnerability to natural hazards, climate variability and climate change, and increase climate resilience
- Improve the living and working conditions of coastal fishing communities
- Empower coastal people to participate in and benefit from sustainable development practices

OBJECTIVES

- Restore fishery resources that have declined
- 2. Restore and maintain species composition
- Reduce the proportion of juvenile fish caught and/ or retained
- 4. Restore biodiversity status level of 1980 by 2020



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





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 Bay of Bengal Large Marine Ecosystem





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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