



Lessons learned from implementation of Ecosystem based Adaptation: Climate Ready Estuaries case study



**Nairobi Work Programme workshop on
Ecosystem Based Adaptation
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National Adaptation Planning in the U.S.

- National Climate Assessment Report: status report of science and impacts in U.S.
- Executive Order 13514 (October 2009)
 - Establishment of the Interagency Climate Change Adaptation Task Force
 - Mandate to integrate adaptation into every agency's work



Interagency Climate Change Adaptation Task Force Guiding Principle

Apply Ecosystem-based Approaches:

“Adaptation should, where relevant, take into account strategies to increase ecosystem resilience and protect critical ecosystem services on which humans depend to reduce vulnerability of human and natural systems to climate change.”



EBA in the work of U.S. federal agencies

- Army Corps of Engineers, NOAA, FEMA: *Systems Approach to Geomorphic Engineering*
- USFS, NOAA: *forest ecosystem restoration, wildfire management*
- NOAA: *ocean acidification, coasts, fisheries*
- FWS: *biological inventory and monitoring*
- EPA: *green infrastructure, Climate Ready Estuaries.*



Climate Ready Estuaries

Goals of the Climate Ready Estuaries program (CRE):

- 1) assess climate change vulnerabilities;
- 2) develop and implement adaptation strategies, and;
- 3) engage and educate stakeholders

Examples of CRE projects

- Delaware Estuary:
vulnerability assessment
- Peconic Estuary – critical lands
protection strategy
- Indian River Lagoon – seagrass
habitat protection

Lessons learned from implementation of CRE

Vulnerability Assessments of Estuaries:

- Role of non-climate drivers
- Use scientific best professional judgment
- Focus on emergency and disaster management
- Collaborate with local partners
- Scope can be narrow

Lessons learned from implementation of CRE

Stakeholder Engagement:

- Leverage existing efforts
- Focus on local issues
- Link messaging to water supply and stormwater drainage
- Target appropriate entities
- Meet with stakeholders to determine needs

Lessons learned from implementation of CRE

Climate Change Indicators and Monitoring:

- Identify desired information outputs first
- Conduct a vulnerability assessment before selecting indicators
- Develop conceptual ecological models before selecting indicators
- Draw up a universe of candidate indicators
- Obtain as much public and scientific input as possible
- Ensure stakeholder buy-in from initial stages

Lessons learned from implementation of CRE

Adaptation Planning Efforts:

- Start small
- Build adaptation planning into other local, state, federal efforts
- Incorporate adaptation into ongoing restoration efforts
- Practice adaptive management



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