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EBM Toolbox: Tools for Predicting and Mitigating Coastal Hazard and Climate Change Impacts (Part III of III)

Editor's note: The goal of The EBM Toolbox is to promote awareness of tools for facilitating EBM processes. It is brought to you by the EBM Tools Network, a voluntary alliance of tool users, developers, and training providers.

By Sarah Carr

Coastal hazard and climate change modeling and vulnerability assessment tools can be combined to provide powerful decision support tools that address multiple EBM objectives. A great example is the Coastal Resilience Web Mapping Tool (www.coastalresilience.org) developed by a coalition led by The Nature Conservancy. This tool incorporates multiple tools, including some that have been mentioned in prior EBM Toolbox features:

- SLOSH (www.nhc.noaa.gov/HAW2/english/surge/slosh.shtml);
- The Community Vulnerability Assessment Tool (part of the Risk and Vulnerability Assessment Tool www.csc.noaa.gov/rvat);
- HAZUS (<http://haz.main.org/taxonomy/term/19/all>); and
- Additional GIS analyses to address both coastal hazard mitigation and conservation goals for the region.

The combined tool helps local officials and coastal managers design, build, and discuss potential scenarios for sea level rise, storm surge, community vulnerability, and conservation. It then helps them identify solutions that meet both ecosystem protection and community resilience goals.

Additional resources for learning about coastal hazards and climate change, including data sources for tools and examples of coastal risk and vulnerability assessments, are:

- NOAA's Coastal Inundation Toolkit (www.csc.noaa.gov/inundation), which provides an overview of causes of inundation as well as tools and resources for identifying and mapping hazards and vulnerabilities;
- Climate Ready Estuaries Coastal Toolkit (<http://epa.gov/cre>), which compiles a variety of resources for learning about climate change impacts and adaptation, including examples of vulnerability assessments for coastal areas and data for modeling and mapping climate change scenarios;
- Climate Adaptation Knowledge Exchange (www.cakex.org), which provides case studies that profile on-the-ground adaptation projects and tools for processing climate change information and making adaptation decisions; and
- NOAA's Coastal Climate Adaptation website (<http://community.csc.noaa.gov/climateadaptation>), which provides additional examples of coastal risk and vulnerability assessments.

Many thanks to the participants on the EBM Tools Listserv for providing background information for this series of columns.

(Sarah Carr is coordinator for the EBM Tools Network. Learn more about EBM tools and sign up for Network updates at www.ebmtools.org.)

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