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EBM Toolbox: Tools for Predicting and Mitigating Coastal Hazard and Climate Change Impacts (Part II 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

Tools for modeling climate change impacts and assessing the vulnerability of communities and ecosystems to these impacts include...

For modeling climate change impacts

- Climate Wizard (www.climatewizard.org) provides easy-to-use, web-based visualization for historic and predicted temperature and rainfall maps worldwide.
- MAGICC and SCENGEN (www.cgd.ucar.edu/cas/wigley/magicc) are coupled tools for investigating climate change and its uncertainties at global and regional levels. MAGICC predicts changes in greenhouse gas concentrations, temperature, and sea level resulting from anthropogenic emissions. SCENGEN uses these results to produce spatially detailed information on future changes in temperature, precipitation and mean sea level.
- SLAMM (www.warrenpinnacle.com/prof/SLAMM/index.html) simulates the dominant processes in wetland conversion and shoreline modification during long-term sea level rise and predicts wetland distributions under accelerated sea level rise.

For assessing and mitigating vulnerability to climate change impacts

- CRISTAL (www.cristaltool.org) helps planners and managers understand links between livelihoods and climate in their project areas, assess a project's impact on community-level adaptive capacity, and adjust projects to increase adaptive capacity and reduce vulnerability to climate change.
- SimCLIM (<http://climsystems.com/simclim>) helps assess the impacts of and adaptations to climate variability and change, including extreme events and sea-level rise.

The next edition of The EBM Toolbox will cover how these tools can be utilized in an EBM project.

(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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