Invitation

The United Nations University, Institute for Environment and Human Security (UNU-EHS) and the Center for Development Research of the University of Bonn (ZEF) invite you to a join guest lecture on:

The Science, Practice and Policy of Natural Defenses for Coastal Risk Reduction & Climate Adaptation

The lecture will be held at the Center for Development Research (ZEF), Genscherallee 3, 53113 Bonn on May 4 2018 from 12:30 pm to 1:30 pm

The event will be moderated by Dr. Zita Sebesvari, Senior Scientist at UNU-EHS, with the guest speakers Dr. Michael Beck and Kerstin Pfliegner.

Background

Coastal populations are swelling, which is putting many more people and much more property in harm's way. What's seemingly disregarded is that many of these development choices are doubly risky because we are building on top of, and degrading, our first lines of protection — our natural defenses. These are the wetlands and reefs that serve as barriers, buffers and breakwaters from rising seas, swell and storm surge. Yet until very recently, it was not possible to put a value or price on that benefit. That is, there was very little direct evidence of how much coastal habitats — our natural infrastructure — help avert flood damages to people and property. There is surprising new data. Recently released work with the insurance industry shows that salt marshes annually reduce flood damages by at least 15 percent.
The benefits of mangroves are even more impressive. In a report released on May 2, we show that globally mangroves reduce flooding of populations by 39% and in some countries such as the Philippines they reduce flood damages to property by 25 percent every year. Maybe more importantly, this is not just about reducing to damages to property; in the Philippines mangroves annually reduce 23 percent of damages to the most socially vulnerable people- those living below poverty. Coastal habitats can provide protection cost-effectively as well, particularly when compared to built or gray infrastructure such as seawalls or dikes. A new study uses insurance industry-based models to show that every $1 spent on restoring marshes and oyster reefs on the American Gulf Coast reduces storm damages by $7. These findings are significant because coastal risk managers, insurers, engineers and policy makers at all levels can now directly compare the cost effectiveness of nature-based ("green") and structural ("gray") defenses for reducing risk from storms and sea level rise across large regions.

Dr. Michael W. Beck is the Lead Marine Scientist for The Nature Conservancy and a Researcher Professor at the University of California Santa Cruz, where he is based. Mike works on marine conservation across science, business and policy to bring clear tools and results to decision-makers. Mike focuses on building coastal resilience and aims to reduce risks to people, property and nature. His approach is multi-disciplinary across ecology, engineering and economics. Mike has authored more than sixty peer-reviewed science articles. His work covers topics from the role of coral reefs in reducing risks from storms to the effects of people on extinctions of Pleistocene mammals. He has also published numerous popular articles including Op-eds in the NY Times, The Hill, Miami Herald, The Scientist and the Huffington Post. He has been a Fulbright Fellow and Pew Marine Conservation Fellow. You can find more on his work at www.nature.org/MikeBeck

As the Conservancy's Director of the Germany Program and Senior Policy Advisor on climate risk and resilience of our Europe regional programme, Dr. Kerstin Pfliegner manages partnerships with key government, corporate, financial and research institutions. She works in particular on financing mechanisms for green infrastructure and climate adaptation, including the insurance value of ecosystems. Some of these European institutions have thus far been our strongest allies for this work.