With Rising Sea Levels and Harsher Storms,

Can We Save Our Shoreline?



The Yale Club of Cape Cod presents a lecture by Professor Robert O. Mendelsohn: Managing Flooding from Sea Level Rise and Storms.

Friday, November 15 4:00pm

Woodwell Climate Research Center 149 Woods Hole Road Falmouth, MA

Robert Mendelsohn has taught environmental economics at the Yale School of the Environment since 1984. He is the Edwin Weyerhauser Davis Professor of Forest Policy; Professor of Economics; and Professor, School of Management, at Yale.

EVENT is FREE

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Yale Club of Cape Cod





Managing Flooding from Sea Level Rise and Storms

This paper models future flooding from sea level rise and storms. The model suggests that SLR will cause storms to substantially increase flood damage to coastal properties over the next 100 years. The economic analysis suggests urban damage can be substantially reduced by employing both fair insurance and optimal seawalls. Although seawalls are needed in only a few coastal segments today, in 100 years, they will be needed in the majority of urban coastal segments. However, the optimal height of these seawalls is generally less than 2m. The 4m walls promoted by the Corps of Engineers won't be needed for 100 years. More rural coastlines will need to retreat and adapt.

<u>Professor Mendelsohn</u> has been involved in environmental economics research for 40+ years. The main focus of his research is measuring the benefit of protecting the environment in the United States and around the world. Over the last thirty years, he has focused on climate impacts and adaptation.

His research on climate adaptation has focused on determining efficient adaptations (whose benefit exceeds cost). In agriculture, adaptations include the movement of farms and forests poleward and to higher altitudes, forest species, crop, and livestock switching, and irrigation. In energy, adaptation includes switching fuels, increasing cooling capacity, and spending more on energy. In coastal protection, these include retreat and fortified defenses. In conservation, these include dynamic measures to help ecosystems migrate poleward. In water, adaptation includes reallocating water across competing demands and possibly increasing water storage.

His research on mitigation has historically focused on using forests to store more carbon. More recently, he has been engaged in trying to make sure that mitigation leads to net reductions in emissions (additionality). This has drawn him to study precisely how firms are measuring their carbon emissions and ways to reduce those emissions.