Climate Science & Investment
Ice Sheets, Sea Level Rise and Coastal Property

Peter de Menocal
Dean of Science
Thomas Alva Edison/ConEd Professor
Dept. Earth and Environmental Sciences
Director, Center for Climate and Life
Why is climate changing?

+2°F warmer

-2°F cooler

This line shows the measured, or "observed," land-ocean temperature
Center for Climate and Life

Why this matters

Climate impacts life's essentials

Food
Water
Shelter
Energy
Health
& the economy
The Challenge – Science Funding Gap
Our Solution

New Science Delivery Model
- *problems* people care about
- *places* they care about
- *timescales* they care about

Engage Business & Philanthropy
- Support urgent science
- Put it to work.
Why Columbia?

- Top Earth Science program
- 120 Climate PhDs
- Earth Institute
- NYC Business hub
Science can inform Business Risk
What Business risk?

$600 billion/yr loss by 2100

Climate-related Loss

- Labor
- Crime
- Agriculture
- Mortality
- Electricity
- Property

Hsiang et al., 2017
$300 billion loss in 2017
Miami - low elevation homes discounted

“Concerns over rising sea levels and floods are beginning to reshape one of the country’s largest housing markets, with properties closer to sea level now trading at discounts to those at higher elevations.”  

WSJ, April 20, 2018
Science and Business should work together

The risk climate change poses to businesses and financial markets is real and already present. It is more important than ever that businesses lead in understanding and responding to these risks—and seizing the opportunities—to build a stronger, more resilient, and sustainable global economy.

Sincerely,

Michael R. Bloomberg

2017 Task Force on Climate-Related Financial Disclosures
Our Scientists

Prof. Robin Bell
Glaciologist

Prof. Marco Tedesco
Glaciologist

Prof. Radley Horton
Climate Scientist
Sea level rise and coastal assets

Nerem et al., 2018