



FOR IMMEDIATE RELEASE

Study, illustrations, and maps show the stakes for COP26 climate negotiations

Princeton, NJ--October 12, 2021--New research from Climate Central illustrates the fleeting opportunity to limit coastal cities' future losses to rising seas. Detailed in the paper "Unprecedented Threats to Cities from Multi-century Sea Level Rise," [published today in *Environmental Research Letters*](#), the research identifies which places may be saved or lost in the long run as a result of present-day climate actions, potentially tied to the outcomes of the upcoming COP26 UN climate negotiations (October 31-November 12 in Glasgow, Scotland). Hundreds of coastal cities and land where up to one billion people live today are at stake. And the difference between increases of 1.5C and 2.0C degrees of warming is especially acute: Compared to the jump from 2.0C to 3.0C, this smaller increase adds nearly twice as much at-risk populated area, highlighting the consequences of missing the most ambitious targets in the Paris Agreement.

Paired with data and imagery from Google Earth, the research enables precise illustration of projected water levels. Climate Central has prepared imagery covering more than 100 coastal cities in 39 countries. The resulting visualizations appear in the collection [Picturing Our Future](#), including video simulations and photorealistic renderings of sea levels centuries in the future around landmarks and iconic neighborhoods.

The research also supports a new interactive map in Climate Central's Coastal Risk Screening Tool, [Warming Choices](#), comparing potential future tidelines—shaded to show land that can be saved or lost, depending on how much more the planet is heated by human activity—for nearly every coastal community on Earth. Like the research and the imagery collection, the map is based on multi-century sea level projections from the IPCC. And it features the world's most advanced global model of coastal elevations, CoastalDEM (version 2.1, released September 2021).

Collaborators on the study include researchers from Climate Central, Princeton University, Germany's Potsdam Institute for Climate Impact Research, and the Lamont-Doherty Earth Observatory, Columbia University.

Author Quotes

Benjamin Strauss, Ph.D., lead author, and CEO and chief scientist, Climate Central:

"World leaders have a fleeting opportunity to help or betray the future of humanity with their actions today on climate change. This research and the images created from it

illustrate the enormous stakes behind the climate talks in Glasgow. Robust and immediate measures for a clean, climate-safe world economy can help billions of people today, and preserve entire cities and nations for the future. Today's choices will set our path."

Anders Levermann, Ph.D., co-author and professor of dynamics of the climate system, Potsdam Institute for Climate Impact Research:

"Sea level rise is threatening our heritage. Not just the ancient heritage, but the cities we are living in today. Those cities in which our action is preparing the world for the next generation."

This research and all associated images and estimates are freely available to support reporting on climate change impacts, including the global heating targets cited during COP26.

Resources

- Paper: ["Unprecedented Threats to Cities from Multi-century Sea Level Rise."](#) [Environmental Research Letters](#)
- Illustrations: [Picturing Our Future \(searchable library\)](#)
- Maps: [Coastal Risk Screening Tool/Warming Choices](#)

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