

EPISODE 6

We must adapt to and reduce sea level rise



2 ANSWERS TO SCEPTICAL QUESTIONS

“Shouldn’t coastal communities already be accustomed to flooding?”

While coastal communities have historically faced occasional flooding, the **increasing sea level rise** brings **new and intensified challenges**. Rising seas not only lead to more frequent and severe flooding but also trigger **coastal erosion and land loss**. Additionally, it can impact freshwater resources, disrupt sewage systems, and even **affect regions** that have **rarely experienced flooding** before.

“Can’t we just adapt to sea level rise as it happens, rather than making drastic changes to our climate and energy policies now?”

Our current climate and energy **choices will determine the extent of sea level rise for centuries** to come. Taking proactive measures to reduce carbon pollution and limit global warming to 1.5°C will not only **protect our communities and infrastructure** but also provide more **time** for gradual **adaptation**, ultimately resulting in a more **sustainable and economically viable future**. Moreover, addressing climate change **simultaneously mitigates other climate-related impacts**, including drought, wildfires, food security, biodiversity loss, and more.

3 FAST FACTS

> 7 m

– the potential sea level rise that could occur if the Greenland Ice Sheet completely melts¹.

2 factors

are mainly responsible for sea level rise: ocean thermal expansion and land ice loss, with the latter, including from Greenland, being the dominant contributor².

3 km

– that is the thickness of the interior of the Greenland Ice Sheet¹, equivalent to stacking seven Empire State Buildings on top of each other.

¹NSIDC 2023, ²Copernicus 2022

3 KEY TAKEAWAYS

- ▶ Sea level is rising. Sea levels will rise more quickly in some locations, with devastating consequences.
- ▶ Impacts include land loss, sewer and water damage, losing freshwater resources, major infrastructure damage and loss.
- ▶ Slowing sea level rise is still possible and gives communities time to plan and adapt. Our choices in this decade can determine whether we face manageable challenges or catastrophic consequences.

3 ESSENTIAL RESOURCES

- ▶ [These images by Climate Central](#) show projected future sea levels at St. Paul’s Cathedral in London.
- ▶ Climate Central’s [Coastal Risk Screening Tool](#): An interactive map showing areas threatened by sea level rise and coastal flooding.
- ▶ This [scientific article](#) by NOAA Climate.gov concisely delves into the topic of sea-level rise.