UN's Intergovernmental Panel on Climate Change (IPCC) Report August 2021

The UN report on the science of climate change published in August 2021 is set to make a huge impact. The sober assessment of our planet's future has been delivered by the UN's Intergovernmental Panel on Climate Change (IPCC), a group of scientists whose findings are endorsed by the world's governments.

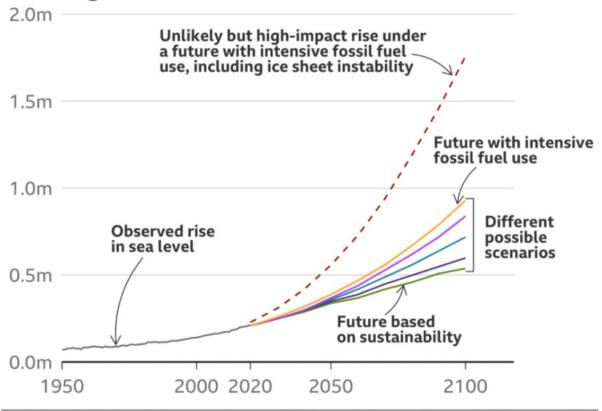
One key area is the continued rise in sea level. No matter what we do, the seas will continue to rise. In the past, the IPCC has been criticised for being way too conservative when it came to assessing the risk of sea-level rise. A lack of clear research saw previous reports exclude the potential impacts of the melting of the Greenland and Antarctic ice sheets.

But not this time.

The report shows that under current scenarios, the seas could rise above the likely range, going up to 2m by the end of this century and up to 5m by 2150. While these are unlikely figures, they can't be ruled out under a very high greenhouse gas emissions scenario.

That's bad enough - but even if we get a handle on emissions and keep temperatures around 1.5C by 2100, the waters will continue to rise long into the future.

Average rise in sea level relative to 1900



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Source: IPCC, 2021: Summary for Policymakers

"The gorilla that looms large in the background is these very scary sea-level rise numbers in the long term," said Prof Malte Meinshausen from the University of Melbourne and an IPCC author.

"In the paper it shows that even with 1.5C warming we're looking at the long-term of two to three metres. And under the highest scenarios, we could be looking at multimetre sea-level rise by 2150. That is just scary, because it's maybe not at the end of our lifetime, but it is around the corner and it will be committing this planet to a big legacy."

Even if the sea-level rise is relatively mild, it will have knock-on effects that we cannot avoid.

"With gradual sea-level rise, those extreme sea-level events that have occurred in the past, just once per century, will occur more and more frequently in the future," said Valérie Masson-Delmotte, co-chair of the IPCC working group that prepared the new report.

"Those that occurred only once per century in the past are expected to occur once or twice per decade by mid-century. The information we provide in this report is extremely important to take into account and prepare for these events."

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