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# James Hansen's controversial sea level rise paper has now been published online

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By **Chris Mooney** July 23, 2015

*This story has been updated.*

It has been widely discussed — but not yet peer reviewed. Now, though, you can at least read it for yourself and see what you think.

A lengthy, ambitious, and already contested paper by longtime NASA climate scientist James Hansen and 16 colleagues appeared online Thursday in Atmospheric Chemistry and Physics Discussion, an open-access journal published by the European Geosciences Union. The paper, entitled “Ice melt, sea level rise and superstorms: evidence from paleoclimate data, climate modeling, and modern observations that 2 °C global warming is highly dangerous” is now open for comment — peer review in this journal happens in public.

And given how much attention the work has already received, it's likely to generate plenty of comments from fellow scientists.

The study raises the possibility of a more rapid rate of sea level rise in this century than forecast by the U.N.'s Intergovernmental Panel on Climate

Change, whose research is widely regarded as the gold standard of climate research — but also often criticized for being too conservative.

Moreover, the study postulates that this faster sea level rise, brought on by the melting of parts of Antarctica and Greenland, could lead to a number of climate change “feedbacks” that could shut down the oceans’ circulation; stratify the polar seas with warmer waters trapped below cold surface layers; increase the temperature difference between low and high latitudes; and generate stronger storms.

*[The world’s most famous climate scientist just outlined an alarming scenario for our planet’s future]*

In reporting on the paper this week, The Post solicited comments from five noted climate scientists — as did other journalists — so in a sense, the peer review has already begun. One of them — Kevin Trenberth of the National Center for Atmospheric Research — strongly criticized the study, saying that “there are way too many assumptions and extrapolations for anything here to be taken seriously other than to promote further studies.”

Other researchers also expressed skepticism about some parts of the work — particularly the suggested feedbacks — but acknowledged that they, too, have great concerns about sea level rise from the melting of ice sheets, especially if global warming exceeds 2 degrees Celsius above pre-industrial levels.

So it remains to be seen what the scientific community, overall, will make of this work.

Nevertheless, it is already notable that a group of prominent scientists — not just Hansen, but also his 16 co-authors, working in fields, such as glaciology, oceanography, and paleo-climatology (or the study of the climates of past planetary eras) — are worried that sea level rise of more than 1 meter is a threat this century. Now, the question becomes to what extent the broader scientific community does — or does not — agree.

In the end, that process could very well lead many researchers to seek out a middle ground. In fact, some already have.

“There is no doubt that the sea level rise, within the IPCC, is a very conservative number,” says Greg Holland, a climate and hurricane researcher at the National Center for Atmospheric Research, who has also reviewed the Hansen study. “So the truth lies somewhere between IPCC and Jim.”

*To read the full Hansen et al study, click [here](#).*

 **98 Comments**

Chris Mooney reports on science and the environment.

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