

UN Climate Report: How vulnerable are we, and how can we adapt?

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How vulnerable is humanity in the face of climate change? And how have people around the world already been impacted? These are some of the questions to be answered on 28 February by the UN's

Intergovernmental Panel on Climate Change. Two researchers from Lund University participated in the final report—Martina Angela Caretta and Emily Boyd.

For three years, approximately three hundred top researchers from around the world have reviewed tens of thousands of scientific research articles. Their assessment has been studied and commented on in several stages, both by other experts and by the individual UN member states. Now the work has concluded, and, on 28 February, the report Impacts, adaptation and vulnerability is to be presented. The report is part of the IPCC's (the UN's Intergovernmental Panel on Climate Change) sixth assessment of knowledge since 1988.

"The work by the IPCC is by far the largest assessment of knowledge that exists on climate change," says professor in climatology at Lund University, Markku Rummukainen, who has followed and contributed to the work by the IPCC for almost twenty years and has been Sweden's IPCC Focal Point for the past six years.

Droughts and floods

Martina Angela Caretta, senior lecturer in cultural geography at Lund University, is the coordinating lead author of the chapter on water.

Which questions will you answer in your chapter?

"We will highlight water insecurity—water in the wrong places and at the wrong time, i.e., droughts and floods. These signs of climate change are something that most people in the world have already experienced or will be experience," says Martina Angela Caretta. "Today, it is estimated that half of the world's population is already affected by water scarcity for at least one month each year due to environmental or climate

changes."

In contrast to the previous assessments of knowledge by the IPCC on the same topic, the report now addresses adaptations that are already being made today. "Another difference in comparison with previous reports is that this report will have a clearer focus on how climate change is affecting gender equality and [equal opportunities](#)," says Martina Angela Caretta.

The chapter on water will also answer questions about how much agriculture and industry will be affected by water accessibility in the future. Other questions include: Who will be impacted the most? Are women affected by water scarcity more than men? How are indigenous populations and marginalized groups affected? Poor versus rich countries? And what do we know will become unsalvageable if we exceed a global temperature rise of 2 degrees?

Will you be making recommendations?

"No. The UN panel on climate change provides policy-relevant documentation, but no policy proposals," says Martina Angela Caretta. "There is an important difference. However, we have produced an assessment of different adaptation strategies. For example, we have looked at which infrastructure works best with regard to the impacts of climate change in cities and which irrigation methods provide the best benefits for climate-impacted agriculture. All of this is compiled into a summary for policymakers."

Poverty, livelihoods and sustainable development

Emily Boyd is a professor in sustainability studies and director of LUCSUS, the Lund University Centre for Sustainability Studies. She

contributed to the section of the report (chapter 8) focusing on poverty, livelihoods and sustainable development.

"The chapter takes a broad look at the unequal impacts of climate change," says Emily Boyd. "There is a focus on environmental justice. We assess knowledge about the most extreme consequences of climate change and the challenges they present for social development—both in the present and in the future. Among other things, we look at research on social tipping points: what can we expect in the form of social instability and conflict when [climate change](#) becomes more evident and the fight for resources intensifies?"

In addition to the areas most impacted, there is an assessment of knowledge about how the most vulnerable groups in society are already impacted and will be impacted globally.

"There are significant differences between regions and how much they will be affected by [climate](#) extremes. However, inequality and different opportunities for adaptation mean that there are also significant differences within one and the same society," says Emily Boyd. "This also applies to richer parts of the world."

Provided by Lund University

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