

Global warming below 1.5 degrees "still possible, but we need to act quickly and drastically"

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Heleen de Coninck. Credit: Radboud University

Keeping the global temperature rise below 1.5 degrees Celsius is still possible, but we have to take immediate and drastic measures. That is

the conclusion of [the Intergovernmental Panel on Climate Change \(IPCC\)](#) in its [latest report](#) which was presented today. The report was requested by the countries that signed the 2015 Paris agreement and pledged to keep climate change well below 2°C and to aim for 1.5°C. Climate policy scientist Heleen de Coninck of Radboud University and environmental psychologist Linda Steg of the University of Groningen made important contributions to the IPCC report. One thing is certain: dealing with climate change will change our lives drastically.

Since the industrial revolution, increased emissions of greenhouse gasses have caused a global temperature increase of 1°C. As a result, we are seeing more and more weather extremes and sea level is rising. To prevent further consequences, all countries agreed in 2015 to keep [climate](#) change well below 2°C and to aim for 1.5°C. At that time, the consequences of aiming for 1.5°C were unknown. The IPCC, the scientific panel of the United Nations, was therefore commissioned to investigate the consequences of a 1.5-degree rise in global temperature and the changes that are needed to limit [global warming](#) to this level.

Drastic changes within 20 years

The IPCC studied peer-reviewed literature on the feasibility, impact and costs of limiting the average global temperature rise to 1.5 degrees. The scientists concluded that this aim is still possible, but we need to act very quickly. "If we continue our current practices, we will exceed the 1.5 degree limit between 2030 and 2050." The differences in impact between a 1.5 and 2 degree temperature rise include the disappearance of coral reefs, an ice-free arctic for much of the year, a [sea level](#) rise of more than a decimetre by 2100 and more heat waves. This will have far-reaching consequences for people.

"To stay below this limit, drastic measures must be taken immediately to limit all types of greenhouse gas emissions," explains climate scientist

Heleen de Coninck, one of the lead authors of the chapter on strengthening and implementing emission-control measures. "By 2050, the world's net CO₂ emissions should be zero." These measures include lifestyle changes such as reduced meat consumption, energy savings in buildings and large-scale investments in renewable energy and energy efficiency. The remaining emissions that are difficult to prevent could be balanced by means of large-scale reforestation, which removes carbon dioxide from the atmosphere.

All countries endorse policy conclusions

The IPCC report provides authorities at all levels with the necessary scientific information for further negotiations on implementing the Paris agreement. During the past week, the Summary for Policymakers (SPM) was extensively discussed in the South Korean city of Incheon. After several changes, each sentence in this summary was approved by all countries.

For the first time, an IPCC report has paid special attention to the impact of lifestyle changes. Environmental psychologist Linda Steg: "We could limit the risks of climate change considerably if people modified their behaviour and supported policy and changes targeting climate change. In addition, it is crucial that people act now to protect themselves from the risks of [climate change](#), such as flooding and heat waves."

De Coninck: "Regardless of whether global warming reaches 1.5 degrees, 2 degrees or more, the world will change drastically. Our lives will no longer be the same. The report shows that limiting global warming to 1.5 degrees can have many benefits, including those for human health and natural habitats. We can still choose the kind of future we want, but we have to act now."

Provided by Radboud University

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