

Time window for action to limit climate change is closing rapidly

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The window of opportunity for limiting climate warming up to 2°C is closing rapidly. However, a reinforcing upward spiral of national government policy, non-state actions and transformative coalitions will be essential even after the Paris agreement, if dangerous climate change is to be avoided. This optimistic, but critical vision is posed by Prof. Niklas Höhne in his inaugural address at Wageningen University on September 1th.

Climate change is one of the most prominent environmental problems facing mankind, which requires urgent action, the Wageningen professor in Mitigation of Greenhouse Gas Emissions says. Even if the national actions proposed for the historic Paris Agreement are fully implemented, an enormous amount of [greenhouse gasses](#) will be emitted, increasing global temperature with some degrees more than the two degrees committed, Prof. Höhne states. "Beyond that boarder severe damages as heavy weather events, floods, droughts and possible tipping of natural systems such as the thermohaline circulation, have to be expected", he says.

Paris agreement

December last year the COP21 conference in Paris agreed to limit the world temperature rise to 'well below 2°C' and to 'pursue efforts' to limit it to 1.5°C. Even then damages are severe with all corals reefs at risk at 2°C. To avoid this disaster scenario the [greenhouse gas emissions](#) from

all activities have to decline to roughly zero by 2100 (2°C) or even by 2060 (1,5°C). However, the greenhouse [gas emissions](#) nowadays are still increasing steadily with between 1% and 3% per year and will continue under 'business as usual' conditions. Nevertheless Prof. Höhne recognizes some rays of hope to achieve the climate goals.

"First the momentum created in Paris must be captured by building on the Intended Nationally Determined Contributions, formulated before the Paris conference started", Prof. Höhne says. "The preparation of these proposals have advanced national climate policy making significantly".

Second, he says, the initiatives of the leading non-state actors need to be supported, both financially and institutionally and their efforts need to be captured in national ambitions. After the unprecedented involvement of non-state actors in Paris, an increasing number of such actors are likely to set mitigation goals and implement mitigation actions that go beyond the ambition level of their respective national governments.

Faster-than-expected transformations

Finally, Prof. Höhne states, the faster-than-expected transformations in some sectors can be used as a model by new 'transformative coalitions'. "These are groups of countries and other stakeholders of sufficient critical mass that have the intention to flip global markets by deploying new technologies at a large scale. Potential areas include zero-energy buildings, efficient electrical appliances, electricity storage, zero-emissions cement or steel and even zero-emissions aviation", Prof. Höhne illustrates in his lecture 'Limiting [climate change](#) to well below 2 °C or 1.5 °C'.

These three measures can reinforce an upward spiral of national government policy, non-state actions and transformative coalitions to

accelerate the transmission to a [greenhouse gas](#) emission free economy and society."

Provided by Wageningen University

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