



## **Global warming of 1.5°C: What does this mean for the Hamburg metropolitan region?**

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Today global warming has reached about 1°C compared to pre-industrial times. Already now, people's livelihood in different regions of the world is endangered by the consequences of this warming, for example by rising sea-levels. For a long time, a global warming of 2°C was seen as the upper limit for preventing drastic changes. But at the World Climate Change Conference in Paris in 2015, almost all countries in the world committed to limit global warming to well below 2°C, if possible even to 1.5°C, compared to pre-industrial levels.

Since the agreement, global climate policy has been working on the implementation of this goal through climate action. In addition, we must prepare ourselves for the inevitable effects of global warming with appropriate adaptation strategies. The current state of scientific knowledge is a sound basis for action. In particular, information about how the regional characteristics of global warming differ, depending on whether it is 1.5°C or 2°C, and what the consequences for society and the environment look like, is essential. For this reason, following the Paris Climate Agreement, the IPCC was mandated to produce a special report on global warming of 1.5°C and its consequences.

In Germany, climate change can be felt in various degrees. For example, large parts of the Hamburg metropolitan area are characterized by their proximity to the coast and therefore are threatened by, among other things, sea-level rise and rising storm surges. Temperatures and precipitation have already started to change. Further changes will become more noticeable in the coming years and decades. If global warming progresses as before, we will reach the 1.5 ° C temperature threshold around the year 2040.

At the Climate Service Center Germany (GERICS), an interdisciplinary team has been working intensively on the consequences of a 1.5°C global warming for the Hamburg metropolitan region. While the team's natural scientists elaborated the impacts on specific indices, other team members focused on the communication of the results. The output of this inspiring teamwork is a flyer\* for Hamburg's citizens, which contains up-to-date climate information, readily understandable texts and a graphical visualization. At the EMS 2019 we would like to present our flyer as well as share our experiences with elaborating effective science communication within interdisciplinary teams.

\*Link: [https://www.gerics.de/imperia/md/images/csc/images/specials/181107\\_gerics\\_ipcc\\_flyer\\_hamburg\\_sr15\\_final\\_digital.pdf](https://www.gerics.de/imperia/md/images/csc/images/specials/181107_gerics_ipcc_flyer_hamburg_sr15_final_digital.pdf)