

MCC Press Release

Compiling insights on the Paris Agreement, carbon footprint and sustainable economic activity

The MCC coordinates a research synthesis project of the journal *Environmental Research Letters*. Three articles involving MCC contributions are already available online.

Berlin, 11/04/2020. To fight the corona pandemic, compiling the findings of various individual pieces of scientific work into meta-studies is of obvious significance. Research synthesis also enhances our knowledge of global warming. Does the global climate agreement help? What can the individual contribute? Is economic growth compatible with climate protection? Three meta-studies offer answers to these questions including contributions of the Berlin-based climate research institute MCC (Mercator Research Institute on Global Commons and Climate Change). They have now been published in *Environmental Research Letters*. The renowned journal is currently putting together a selection of meta-studies as support for the next assessment report of the Intergovernmental Panel on Climate Change (IPCC), with MCC acting as a coordinator.

In the first meta-study now published, a research team led by the Hertie School of Governance in Berlin reviews the literature on the Paris Agreement. It explores how the agreement is assessed in roughly 300 relevant individual studies, which of its mechanisms are analysed, and which drivers, obstacles, and recommendations scientists consider to be most important regarding success. "To our knowledge, this is the first application of systematic evidence synthesis to this part of literature," reports [Ulrike Kornek](#), head of the MCC working group Governance and co-author. She points out the following key arguments: "The Paris Agreement must overcome barriers to transparency, it needs stronger provisions against free-riding of states, but it creates substantial impact in terms of political norms and learning processes."

The second meta-study focuses on reductions to the individual carbon footprint. To this end, a team of researchers led by the University of Leeds reviewed some 7,000 articles and identified 781 options. "The mobility sector is particularly promising considering the extent of individual contributions to emissions reduction," reports [Felix Creutzig](#), head of the MCC working group Land Use, Infrastructure and Transport and co-author. "The average reduction of annual emissions estimated in the literature when discussing to live car-free, drive electric, or abstain from one long-haul return flight is around two tons of CO₂." Other effective individual choices would include changing the diet to more plant-based products, as well as using or generating electricity from renewable sources. "However, many of these options need political support," emphasises Creutzig. "It remains the responsibility of governments to ensure that individuals can protect the climate effectively."

MCC was founded jointly by:

In a third meta-study consisting of two parts, a research team led by the University of Natural Resources and Life Sciences in Vienna evaluates roughly 11,000 articles explaining the relationship between economic growth and greenhouse gas emissions. Only very few case analyses describe a true decoupling, i.e. reducing emissions while increasing economic performance, namely for European countries investing heavily in renewable energies. "Massive public investments in carbon-neutral infrastructures are an essential precondition for decoupling," says MCC researcher and co-author Creutzig. "This is also relevant when it comes to putting together economic stimulus packages after the end of the corona pandemic while establishing more sustainable economic activities at the same time."

About the MCC

The MCC explores sustainable management as well as the use of common goods such as global environmental systems and social infrastructures against the background of climate change. Our seven working groups are active in the fields of economic growth and development, resources and international trade, cities and infrastructure, governance and scientific policy advice. The MCC was co-founded by the Mercator Foundation and the Potsdam Institute for Climate Impact Research (PIK).

Reference of the cited articles:

- Raiser, K., Kornek, U., Flachsland, C., Lamb, W., 2020, Is the Paris Agreement Effective? A systematic map of the evidence, *Environmental Research Letters*, <https://doi.org/10.1088/1748-9326/ab865c>
- Ivanova, D., Barrett, J., Wiedenhofer, D., Macura, B., Callaghan, M., Creutzig, F., 2020, Quantifying the potential for climate change mitigation of consumption options, *Environmental Research Letters*, <https://doi.org/10.1088/1748-9326/ab8589>
- Wiedenhofer, D., et al., 2020, A systematic review of the evidence on decoupling of GDP, resource use and GHG emissions, part I: bibliometric and conceptual mapping, *Environmental Research Letters* <https://doi.org/10.1088/1748-9326/ab8429>
- Haberl, H., et al., 2020, A systematic review of the evidence on decoupling of GDP, resource use and GHG emissions, part II: synthesizing the insights, *Environmental Research Letters* <https://doi.org/10.1088/1748-9326/ab842a>

Media contact:

Ulrich von Lampe
Press and Public Relations
Mercator Research Institute on Global Commons and Climate Change (MCC)
Telephone: +49 (0) 30 338 5537 201
Mobile: +49 (0) 171 1964 449
Email: lampe@mcc-berlin.net
https://twitter.com/MCC_Berlin
www.mcc-berlin.net

MCC was founded jointly by: