



# GERMAN SCIENCE HOUR



COP23 | Bonn Zone | German Pavilion | November 6 to 16  
daily from 12:30 to 13:30 (Nov 16 already at 12:00)

The Paris Agreement was an important milestone for climate research: research has provided the knowledge basis and now plays a crucial role in achieving the targets of the Agreement.

The German Federal Ministry of Education and Research therefore brings science onto the stage during the negotiations at COP23 by hosting the German Science Hour every day. Experts from science and relevant stakeholders from politics and society ...

- ... present the latest scientific facts about climate change
- ... explain research findings in an understandable way
- ... answer the audience's questions

The scope of the German Science Hour ranges from the natural science basis to socio-economic aspects including climate communication in times of fake news.

## Program

Date	Title	Short description	Panelists
Mo, 06.11	Science of extreme events	It is difficult to feel and experience climate change, but extreme events such as heat waves, floods, droughts make it to the news' headlines. How does climate change influence such extremes? What can we do to avoid dangerous impacts?	Vera Stercken, BMBF Harald Kunstmann, KIT Clemens Simmer, Uni Bonn Uwe Ulbrich, FU Berlin Aiko Voigt, KIT
Tu, 07.11	Climate of the past - climate of the future	The climate has always changed, but the current change is not caused by natural reasons, is much faster and poses high risks for human welfare. What happened in the past to ecosystems and humans? Why is the current change different? How will the Earth system develop in the future? What are the implications of the Paris Agreement?	Elmar Kriegler, PIK Mojib Latif, GEOMAR, DKK
We, 08.11	Communicating climate science	Despite the scientific facts on climate change large parts of the public are not aware of the associated risks and the need for transformational change. Many think that climate change is a matter of believe and do not trust the science. How can science communication be improved? What are dos and donts when talking to different target audiences?	Hannah Schmid-Petri, Uni Passau Marie-Luise Beck, DKK Pieter Pauw, DIE Jonathan Lynn, IPCC Secretariat
Th, 09.11	The fate of greenhouse gases: the knowns and the unknowns	Greenhouse gas emissions are highest in human history and rising concentrations are changing the climate system and acidifying the oceans. What do we know about the carbon cycle? Which methods are used to observe greenhouse gas fluxes from land, ocean, and in the atmosphere? How can we detect the human signal?	Gerhard Ehret, DLR Werner Kutsch, ICOS Julia Marshall, MPI-BGC
Fr, 10.11	Carbon pricing: making polluters pay or selling out our future?	Carbon pricing, in the form of carbon taxes and cap & trade schemes, is becoming a pillar of climate policy around the world. Recently it has been argued that it could also help to overcome the cooperation problem at the global level. At the same time, concerns about effectiveness, persistently low prices, interactions with other instruments and distributional effects continue to grow. The session aims at giving an interdisciplinary perspective on the strength and limits of carbon pricing in the pursuit of a low-carbon and inclusive future.	René Haak, BMBF Grischa Perino, Uni Hamburg Karen Pittel, ifo, DFG, DKN Future Earth
Sa, 11.11	Our ocean future: marine ecosystems under climate change	Climate change poses multiple risks for the oceans: increasing acidification, warming and deoxygenation affect marine ecosystems, which are already threatened by marine litter. At the same time a substantial fraction of the global population depends on fishery for their livelihoods. The event will provide insights in risks of the multiple changes in the oceans and possible consequences for society.	Wilfried Kraus, BMBF Ulf Riebesell, GEOMAR Sebastian Ferse, ZMT Hans-Otto Pörtner, AWI

Date	Title	Short description	Panelists
Mo, 13.11	Science in times of fake news	Science and the IPCC in particular have identified the problem of climate change and the challenges involved to tackle this problem. The UNFCCC and the Paris Agreement are committed to be science-based, but important countries and stakeholder deny the facts. The event will discuss the role of science for climate policy as well as different forms of scepticism and ways to address these.	Karl Eugen Huttmacher, BMBF Dagmar Dehmer, BGE Susanne Dröge, SWP Ellen Matthies, Uni Magdeburg, WBGU Stefan Rahmstorf, PIK
Tu, 14.11	Paris, coal, and the price of carbon	Keeping global temperature rise below 2 °C or 1.5 °C requires highly ambitious mitigation actions by all countries such as the immediate phase-out of coal and avoiding carbon-intensive infrastructures. Yet, global cooperation is challenged by to-date inadequate credibility of Nationally Determined Contributions, increasing concerns around national competitiveness, regional development, and the renaissance of cheap coal. This German Science Hour will explore options to implement the global Energiewende with a specific view to the role of international carbon pricing.	Ottmar Edenhofer, PIK/MCC Ulrike Kornek, MCC Andreas Löschel, Universität Münster
We, 15.11	Transformation - turning the climate tide	Both limiting global warming as required by the Paris Agreement and unabated climate change will require transformational change. However, besides climate change human kind is facing additional challenges. The Sustainable Development Goals provide an integrative approach for meeting human development goals while at the same time sustaining the ability of natural systems to provide the natural resources and ecosystem services upon which the economy and society depend.	René Haak, BMBF John Schellnhuber, PIK/WBGU
Th, 16.11 (12-13)	Failing the carbon budget - what's next?	A large fraction of emitted CO <sub>2</sub> remains in the atmosphere for centuries, and any amount of warming can be closely associated with a certain carbon budget. To stop global warming, emissions must go to net zero. How much CO <sub>2</sub> and other greenhouse gases can we still emit and keep global warming below 1.5 °C, 2 °C or 3 °C? What are the options if we fail to reduce emissions fast enough? The event will address technology options from a scientific, social and political perspective as well as the risks and benefits of technology options vs. transformation.	Karl Eugen Huttmacher, BMBF Lili Fuhr, Heinrich Böll Stiftung Oliver Geden, SWP Mark Lawrence, IASS Andreas Oschlies, GEOMAR