PERSPEKTIVEN FÜR UMWELT & GESELLSCHAFT umweltbundesamt

Das IPCC (und das UNFCCC) – Geschichte, Struktur, Prozesse
Wien, 1. Juli 2016

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Überblick

- IPCC und UNFCCC – Geschichte
- IPCC – Struktur
- IPCC – Prozesse
- IPCC – Mitwirkung ö Autoren AR5

Geschichte – Rolle des IPCC

- The issue of human-induced global climate change became a major environmental concern during the 20th century, and is the paramount environmental debate of the 21st century.
- Response to climate change requires effective interaction from the scientific community, society in general, and politicians in particular.
- The Intergovernmental Panel on Climate Change (IPCC), formed in 1988, has gradually developed to become the key UN body in providing this service to the countries of the world.

Aus: A history of the science and politics of climate change; by Bert Bolin (2007)

Geschichte – Meilensteine bis 1990

1824 – Joseph Fourier (Strahlungsbilanz)

1865 – John Tyndall (Rolle der Atmosphäre)

1896 – Svante Arrhenius (Beschreibung des Treibhauseffekts, einschließlich positiver Rückkopplung durch Anstieg des Wassergehalts der Atmosphäre)

1935 – Kostitzin (erstes Modell des Kohlenstoffkreislaufs)

1938 – Callender (Anstieg des atmosphärischen CO_2 durch Verbrennung fossiler Energieträger)

1960 – Keeling (Nachweis des Anstiegs von CO_2 um ca. 0,6ppm pro Jahr)

1977 – Bolin, Houghton (1983) – Rolle der Entwaldung

1979 – Erste Weltklimakonferenz (veranstaltet von WMO, UNEP)

1980 – Start des World Climate Research Programme, WCRP

1987 – Our Common Future (report of the World Commission on Environment and Development (Brundtland Kommission)

1988 – Genf: Gründung des IPCC

1990 – IPCC First Assessment Report (FAR)

- Informationsquelle über Klimaänderungen für Entscheidungsträger:
  „policy relevant, but not policy prescriptive“.
- Objektive, transparente und umfassende Bewertung des aktuellen Kenntnisstands der Klimaforschung aus wissenschaftlicher Sicht.

- 1988 eingerichtet von UNEP (Umweltprogramm der UN) und WMO (Weltorganisation für Meteorologie).
- Wissenschaftliches, zwischenstaatliches Gremium.
- Nutzt vorhandenes Wissen, betreibt keine eigene Forschung, überwacht keine Klimadaten, betreibt keine Ausbildung.
- Durch ihre Zustimmung zu den IPCC-Berichten erkennen 195 Regierungen deren wissenschaftliche Aussagen an.

IPCC → internationale Klimapolitik

1990	First IPCC Assessment Report
1990	UN establishes the Intergovernmental Negotiating Committee for the Framework Convention on Climate Change (INC)
1992	IPCC-Supplementary Report (for INC)
1992	UN Framework Convention on Climate Change, UNFCCC adopted
1995	IPCC: Second IPCC Assessment Report
1995	UNFCCC: Kyoto Protocol (KP) adopted
2001	IPCC: Third IPCC Assessment Report
2001	UNFCC Marrakesh Accord (Implementation of the KP)
2007	IPCC: Fourth IPCC Assessment Report
2007	UNFCCC: Negotiations about a Post-Kyoto-Treaty, Adoption of the Bali Action Plan
2009/10	UNFCCC Copenhagen Accord / Cancun Agreement
2011	Durban Platform for Enhanced Action (ADP), Kyoto Protokoll 2. VP
2013/14	IPCC: Fifth Assessment Report
2015	Paris Agreement
2016	IPCC: Beschlüsse der Berichte im Rahmen des 6. Assessment Zyklus

Rolle der Wissenschaft in UNFCCC

- **Wissenschaft ist die Basis der internationalen Klimapolitik.**
- Sie spielt als **Querschnittsthema** in vielen Bereichen eine Rolle.
- In den **konkreten politischen Verhandlungen eher untergeordnet**, jedoch wichtige Rolle zur Motivation von Entscheidungen.

Wissenschaft im Paris Agreement

- „be based on and guided by the best available science"
- **Stärkung Forschung,** naturwissenschaftliche Klimaforschung, systematische Beobachtung, Frühwarnsysteme, Klimadienste und Unterstützung bei Entscheidungsfindung, Technologieentwicklung und –transfer;
- **IPCC Sonderbericht** zum **Langfristziel von 1,5°C:** „*Invites* the Intergovernmental Panel on Climate Change to provide a special report in 2018 on the impacts of global warming of 1.5 °C above pre-industrial levels and related global greenhouse gas emission pathways";
- **Kooperative Ansätze** in Forschung und Entwicklung

Erwartungen an Forschung

Transformation: Wende zu einer klimaneutralen Zukunft auf sozial, wirtschaftlich und ökologisch vertretbare Weise

- Geht das? Machbarkeit ambitionierter Klimaziele
- Was tun? Bewertung klimapolitischer Maßnahmen
- Was kostet es? Risikoabschätzung, Verluste und Schäden
- Und dann: Wettbewerbseffekte, soziale Folgen
- Globale Energiewende: Privatwirtschaft & Finanzmärkte

IPCC Verfahren zur Berichterstellung (1)

- Inhalte werden in abgestimmtem Verfahren festgelegt
- Transparenter Auswahlprozess der Experten – ausgewogenes Autorenteam
- Mehrstufiger Begutachtungsprozess
- Veröffentlichung der Entwürfe, der Stellungnahmen und Antworten
- Formelle, einstimmige Verabschiedung von allen Mitgliedsstaaten
- strenge Regeln für Unabhängigkeit und Glaubwürdigkeit

IPCC Verfahren zur Berichterstellung (2)

Scoping: scoping meeting develops draft outline ; panel decides whether to prepare a report and agrees on its scope, outline and work plan including schedule and budget.

Authors: chosen from lists drawn up by member governments, observer organizations and the Bureaux (Co-Chairs and Vice-Chairs) of the Working Group or Task Force producing the report. Bureau of the Working Group or Task Force selects the authors.

Composition: reflects the range of scientific, technical and socio-economic expertise; geographical representation, ensuring appropriate representation of experts from developing and developed countries and countries with economies in transition; a mixture of experts with and without previous experience in the IPCC; and gender balance. Scientists who are nominated but not selected as authors are invited to register as expert reviewers for the report.

IPCC Verfahren zur Berichterstellung (3)

First draft: prepared by authors based on available scientific, technical and socio-economic information. The role of the IPCC is to assess all relevant scientific information. Priority is given to peer-reviewed scientific, technical and social-economic literature. The IPCC recognizes that non-peer reviewed literature, such as reports from governments and industry can be crucial for IPCC assessments, and the appropriate use of such literature expands the breadth and depth of the assessment by including relevant information. Use of this literature brings with it an extra responsibility for the author teams to ensure the quality and validity of cited sources and information.

In preparing an IPCC report, Lead Authors should clearly identify disparate views for which there is significant scientific or technical support. Contributing Authors may be invited to submit further material.

IPCC Verfahren zur Berichterstellung (4)

Review: an essential part of the IPCC process to ensure objective and complete assessment of the current information. In the course of the multi-stage review process - first by experts and then by governments and experts - both expert reviewers and governments are invited to comment on the accuracy and completeness of the scientific, technical and socio-economic content and the overall balance of the drafts. The Review Editors of the report (normally two per chapter) make sure that all comments are taken into account by the author teams. Review comments are retained in an open archive on completion of a report.

After the first order draft has been reviewed by experts, authors prepare a second order draft of the report and a first draft of its Summary for Policymakers (SPM). The second order draft of the report and the first draft of the SPM are subject to simultaneous review by both governments and experts. Authors then prepare final drafts of the report and SPM. These are distributed to governments who provide written comments on the revised draft of the SPM before meeting in plenary to approve the SPM and accept the report.

See: http://www.ipcc.ch/organization/organization_procedures.shtml

Gremien (Struktur) des IPCC

- **drei IPCC-Arbeitsgruppen** sowie **Task Force on GHG-Inventories**
- **IPCC-Vorstand** mit jetzt 34 Sitzen (vormals 31)
- **Je Arbeitsgruppe/TF eine Geschäftsstelle** (Technical Support Unit, TSU)
- Task Group on Data and Scenario Support for Impacts and Climate Analysis und eines damit verbundenen IPCC-Datenzentrums
- IPCC-Sekretariat

Chair, vice chairs IPCC

Chair:

Hoesung Lee Republic of Korea

Vice chairs:

Ko Barrett United States of America

Thelma Krug Brazil

Youba Sokona Mali

Büro WG I

Co-chairs: Panmao Zhai (China) and Valérie Masson-Delmotte (France)

Edvin Aldrian	(Indonesia)
Fatima Driouech	(Morocco)
Gregory Flato	(Canada)
Jan Fuglestvedt	(Norway)
Muhammad Tariq	(Pakistan)
Carolina Vera	(Argentina)
Noureddine Yassaa	(Algeria)

Büro WG II

Co-Chair: Hans-Otto Pörtner,	Germany
Co-Chair: Debra Roberts,	South Africa
Vice-Chair: Andreas Fischlin,	Switzerland
Vice-Chair: Mark Howden,	Australia
Vice-Chair: Carlos Méndez,	Venezuela
Vice-Chair: Joy Jacqueline Pereira,	Malaysia
Vice-Chair: Roberto A. Sánchez-Rodríguez,	Mexico
Vice-Chair: Sergey Semenov,	Russian Federation
Vice-Chair: Pius Yanda,	Tanzania
Vice-Chair: Taha M. Zatari,	Saudi Arabia

Büro WG III

Co-Chair Priyadarshi R. Shukla	India
Co-Chair Jim Skea	United Kingdom
WG Vice-Chair Amjad Abdulla	Maldives
WG Vice-Chair Carlo Carraro	Italy
WG Vice-Chair Diriba Korecha Dadi	Ethiopia
WG Vice-Chair Nagmeldin G. E. Mahmoud	Sudan
WG Vice-Chair Ramón Pichs-Madruga	Cuba
WG Vice-Chair Andy Reisinger	New Zealand
WG Vice-Chair Diana Ürge-Vorsatz	Hungary

Co-chairs TFI

Co-Chair Eduardo Calvo Buendía	Peru
Co-Chair Kiyoto Tanabe	Japan

Executive Committee – 12 Sitze

Purpose: to strengthen and facilitate timely and effective implementation of the IPCC Programme of Work in accordance with the IPCC Principles and Procedures, and the decisions of the Panel and advice of the Bureau.

Composition:

Members: IPCC Chair (who will chair the Executive Committee)

IPCC Co-Chairs of Working Groups I, II and III and of the Task Force on Inventories

IPCC Vice Chairs

Advisory Members:

Head of Secretariat

The four Heads of the Technical Support Units

Berichte im Rahmen des 6. A-Zyklus

- Special Report on the impacts of global warming of 1.5 ºC above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development and efforts to eradicate poverty.
- Special Report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems.
- Special Report on climate change and oceans and the cryosphere.
- Methodology Report on Greenhouse Gas Inventories.
- Sixth Assessment Report.

Methodology report

"**Refinement of 2006 IPCC Guidelines** for National Greenhouse Inventories, including production of a Methodology Report(s)"

- The 2006 IPCC Guidelines for National Greenhouse Gas Inventories provide a technically sound methodological basis of national greenhouse gas inventories, and therefore fundamental revision is unnecessary.
- To maintain the scientific validity of the 2006 IPCC Guidelines, certain refinements may be required, taking into account scientific and other technical advances that have matured sufficiently since 2006.
- Task Force on National Greenhouse Gas Inventories (TFI) started a technical assessment of IPCC Inventory Guidelines through an on-line questionnaire survey and two expert meetings in 2015 revealed that there has been abundant new scientific and empirical knowledge published since 2006 which the IPCC should take into account, particularly with respect to data for emission factor development for some categories and gases.

Kriterien für Auswahl der Experten

In selecting scoping meeting participants, consideration will be given to the following criteria:

- scientific, technical and socioeconomic expertise, including the range of views;
- geographical representation;
- a mixture of experts with and without previous experience in IPCC;
- gender balance;
- experts with a background from relevant stakeholder and user groups, including governments.

Arten von Experten

Chapter teams comprise

- Coordinating Lead Authors,
- Lead Authors and
- Review Editors.

The Bureau of the relevant IPCC Working Group or Task Force selects scientists for these roles from nominations of experts from their respective countries by IPCC member governments and observer organizations or from other experts known through their publications and work.

Experts who are nominated by governments and observer organizations but not selected are encouraged to contribute to the report as Expert Reviewers.

Mögliche Einbindung ö ExpertenInnen

- Scopingprozess
  - Einladungen zur Bewerbung zur Teilnahme an Scoping Treffen?
  - Inhaltliche Konsultationen über Strukturen der Berichte?
- Berichtserstellung und Expertentreffen
  - Bewerbung (Lebenslauf) über ö IPCC Focal Point (BMLFUW), Auswahl durch IPCC-Vorstände
  - Fachliche Begutachtung der Berichte?
- Organisation der Bereitstellung von Information?
- Finanzielle Unterstützung im Falle einer Einbindung?

Ö Experten für den AR5 WG I

HAIMBERGER, Leopold University of Vienna

KASER, Georg University of Innsbruck

KLIMONT, Zbigniew International Institute for Applied Systems Analysis

MARZEION, Ben University of Innsbruck

WANIA, Rita

BAHN, Michael University of Innsbruck

KIRCHENGAST, Gottfried University of Graz

RADUNSKY, Klaus Umweltbundesamt

RIAHI, Keywan International Institute for Applied Systems Analysis

ROTT, Helmut University of Innsbruck

SEIBERT, Petra University of Vienna

Ö Experten für den AR5 WG II

Susanne Hanger, International Institute for Applied Systems Analysis

Stefan Kienberger, University of Salzburg

Reinhard Mechler, International Institute for Applied Systems Analysis / Vienna; University of Economics

Anthony Patt, Swiss Federal Institute of Technology

Harald Pauli, Austrian Academy of Sciences

Klaus Radunsky, Umweltbundesamt GmbH

Peter Rauch, University of Natural Resources and Life Sciences, Vienna

Bernhard Riegl, Nova Southeastern University

Andreas Scheba, University of Manchester

Vegard Skirbekk, International Institute for Applied Systems Analysis (IIASA)

Zum Vergleich: Schweiz 31 Nennungen

Ö Experten für den AR5 WG III

BARRETO, Leonardo Austrian Energy Agency

BAHN, Michael University of Innsbruck

BÖTTCHER, Hannes International Institute for Applied Systems Analysis (IIASA)

KIRCHENGAST, Gottfried University of Graz

GÓMEZ-ECHEVERRI, Luis International Institute for Applied Systems Analysis (IIASA)

RADUNSKY, Klaus Umweltbundesamt

RIAHI, Keywan International Institute for Applied Systems Analysis

ROTT, Helmut University of Innsbruck

SEIBERT, Petra University of Vienna

Weitere Informationen IPCC

Webseiten des IPCC

IPCC www.ipcc.ch

WG1 www.climatechange2013.org

WG2 www.ipcc-wg2.gov

WG3 www.mitigation2014.org

SYR www.ipcc-syr.nl

TFI http://www.ipcc-nggip.iges.or.jp/

Interview WGI co-chair

GeoPolicy: What's next for the IPCC & how can early career scientists get involved? An interview with Valérie Masson-Delmotte
EGU (Blogs), 1 June 2016
http://blogs.egu.eu/geolog/2016/06/01/geopolicy-whats-next-for-the-ipcc-how-can-early-career-scientists-get-involved-an-interview-with-valerie-masson-delmotte/

Herzlichen Dank für die Aufmerksamkeit!

Kontakt & Information

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