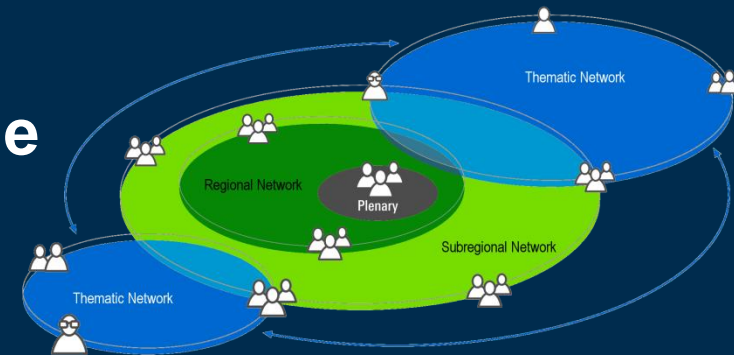
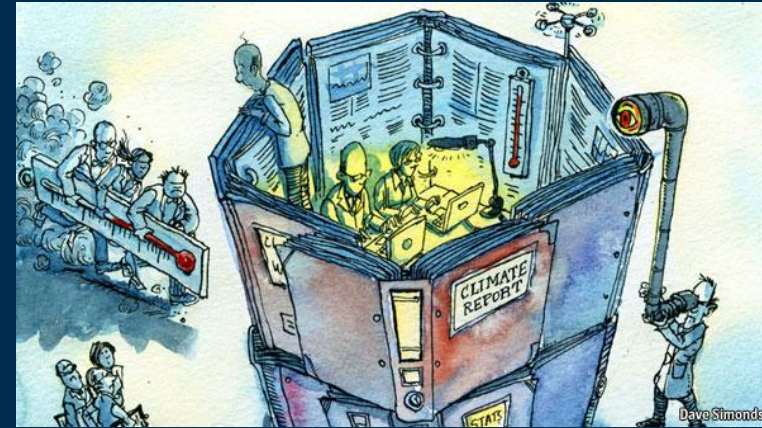




Open Governance – Lessons from the Intergovernmental on Climate Change (IPCC)



Science diplomacy in action - Governance for international science

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February 2013



Bundesministerium
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THE CASE OF GLOBAL ENVIRONMENTAL PROBLEMS

- Grand Challenges
- Universal risk but local differentiated impacts
- Interlinkages to health issues
- Need for cooperation across research communities (health and environmental)
- Need for multilateral collaboration in science and policy

Expertise matters

- Definition of risks
- Responses

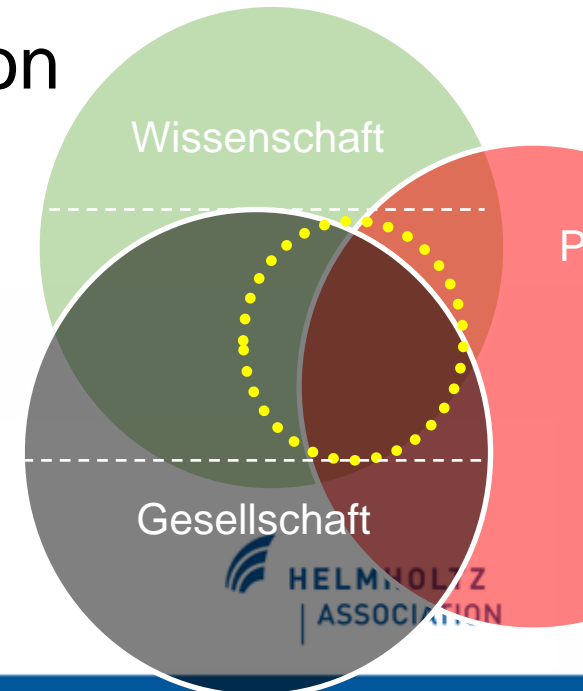


STRUCTURE

I. Challenges of “open” governance: “Always keep the door open”

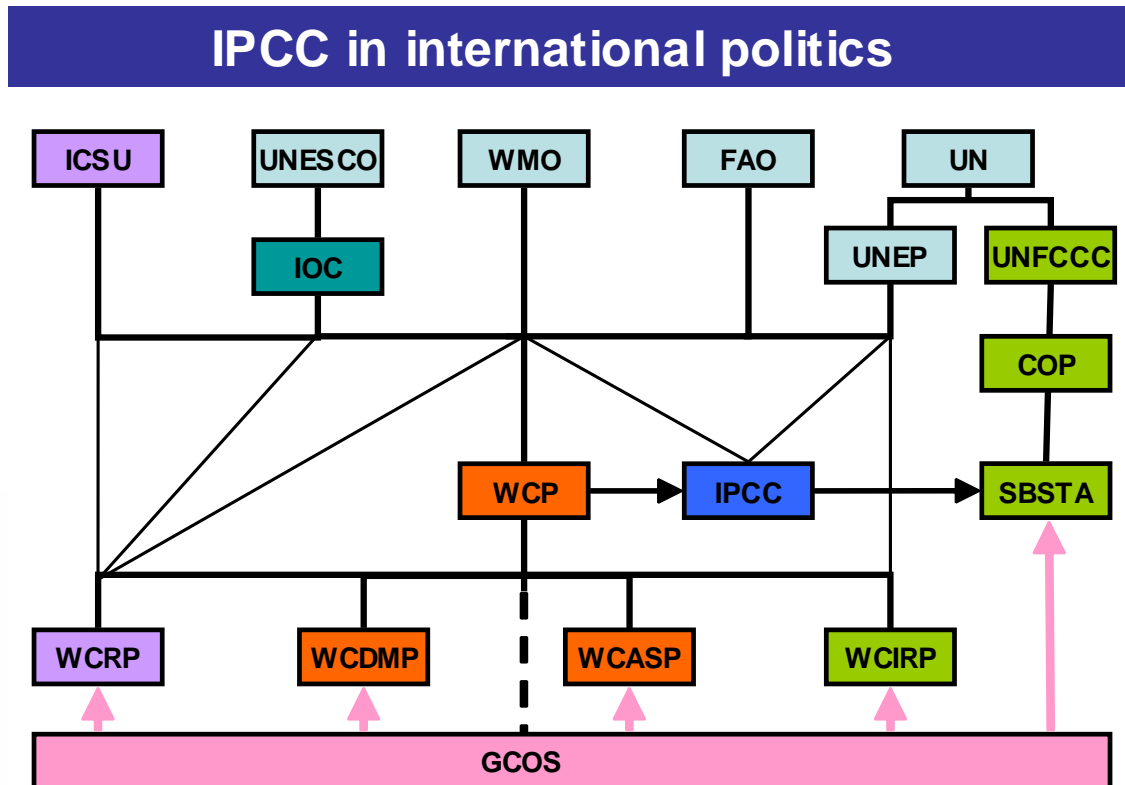
- Accountable and transparent forms
- Responsive organization: to meet novel challenges and requirements and to adjust governance structures

II. Lessons learnt for global cooperation



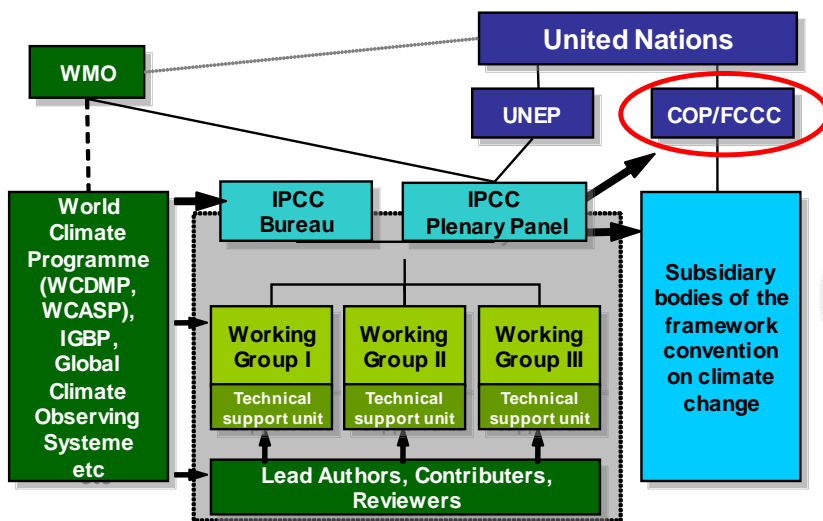
HISTORICAL DEVELOPMENT

The IPCC was established by the UNEP and the WMO in 1988.



- To provide scientific information to decision makers (COP/ FCCC)
- To assess the most recent scientific information produced worldwide relevant to the understanding of climate change.
- Function as a “filter”
- Intergovernmental panel:

open to all member countries of the UN and WMO (194 countries)



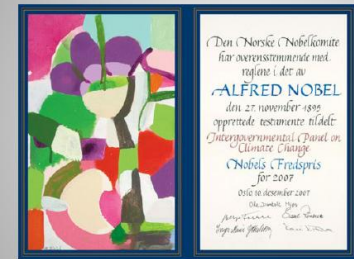
ACHIEVEMENTS

Awarded (along with Al Gore) the 2007 Nobel Peace Prize:

“a tribute to what is the largest and most complex orchestration of sustained international scientific co-operation the world has ever seen” (Royal Society, 2011: 80).



and the Nobel Peace Prize



Contributions from Scientists and Governments have Increased Over Time

1990 Report: 365 pages,
170 lead and contributing authors
from 25 countries and 200 reviewers
35 countries at final plenary

2007 Report: 987 pages,
152 lead authors and 400 contributing authors
from 40 countries and 600 reviewers
113 countries at final plenary

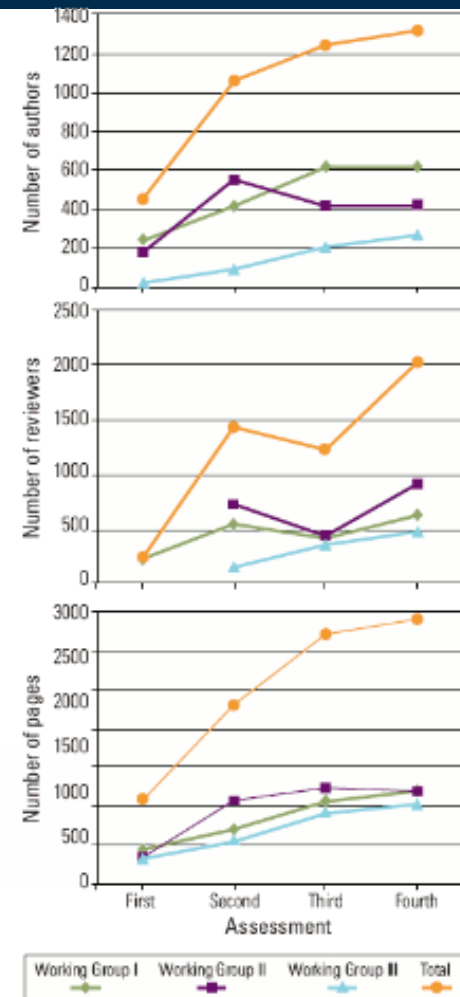
FROM AN EOHIPPUS TO A HORSE (PACHAURI)

Significant growth

- ✓ scope
- ✓ scales
- ✓ disciplines
- ✓ pages
- ✓ countries
- ✓ assessment tasks

From a small, little-known institution

- To the most comprehensive experiment of cooperation

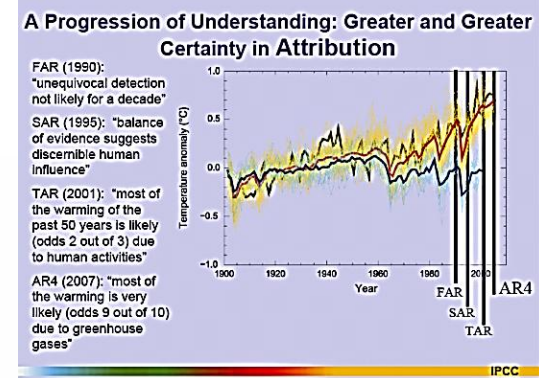
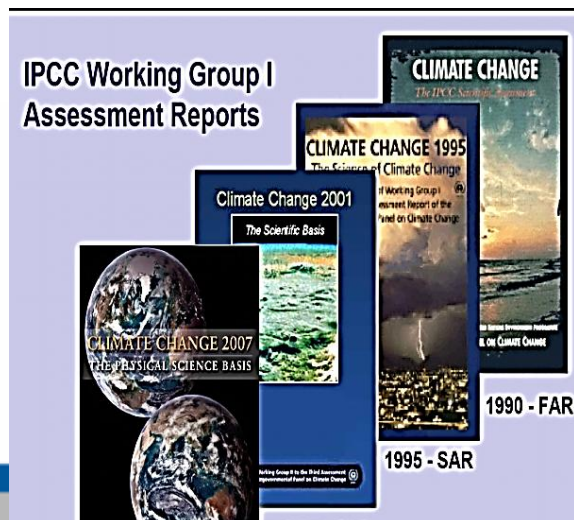


A growing burden. Each successive assessment has needed more reviewers and authors to monitor more research findings.



POLITICAL ACHIEVEMENTS

- Production of four massive assessments of climate-change science since 1990
- Delivers solid answers to the biggest questions
 - whether and to what extent humans are contributing to global warming
 - Impacts
 - Evidence for the need to take actions



WINDS OF CHANGE

The cultural and political mood around climate change in 2009:

- IPCC as the authoritative voice of science
- high political priority of climate change
- high expectation in the world leaders gathering for the [climate change summit in Copenhagen](#) in December 2009
- Break through in international climate policies



THE 'CLIMATEGATE' AFFAIR

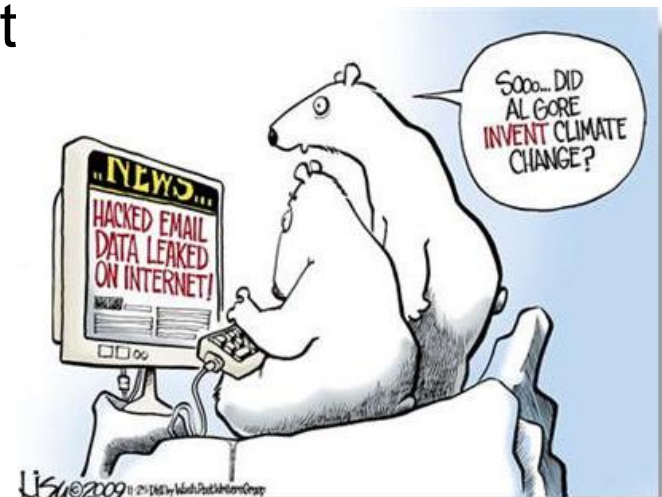
- 2009: E-mails hacked from leading climate scientists from the Climatic Research Unit (CRU) at the University of East Anglia, UK
- Discovery of mistakes and distortions - IPCC under fire



IMPACTS: LOSS OF PUBLIC TRUST?

Public turmoil & media coverage rise to questions about the credibility of the overall IPCC assessment:

- could politics and society still rely on the IPCC for an assessment of the knowledge on climate change?
- could policymakers and the public at large still trust the IPCC's key messages?



UNDER THE PUBLIC 'MICROSCOPE'

- ‚Victim of its own success‘
- High degree of politicization inside science:
science as „contact sport“ (Schneider)
- ‚Battle over truth‘ is waged in ‚public‘
- ‚War over public opinion‘
- New groups taking science into account
- Demand for greater transparency and accountability
- Growing role of trust and performance



EVALUATION BY THE INTERACADEMY COUNCIL

Set up of several review processes:

InterAcademy Council

- commissioned by the IPCC and the UN
- represents the world's science academies
- focus on procedures rather than the quality of the science
- produced a 100-page report released on 30 August 2010



DEFICITS: WHAT IS MISSING?

- Access to Data
- Transparency
 - scoping
 - criteria for selecting participants
 - the type of scientific and technical information
- Comprehensive communications strategy



THE CHAIRMAN'S CONCLUSION: THE NOVEL 'OBLIGATION'

- 'climate science has become so central to important public debates that accountability and transparency must be considered as a growing obligation' (H. Shapiro)
- 'these new expectations are not yet reflected in the current governance and management structure of the IPCC' ([IAC 2010: 39](#))
- the need to review and adapt its processes and procedures in the light of the raising demand for accountability and transparency

IPCC REFORM PROCESS

- Intergovernmental: fundamental changes need to be adopted by sponsoring governments
- 32nd, 33rd and 34th IPCC plenary sessions dealing with the reform



ORGANIZATIONAL LEARNING

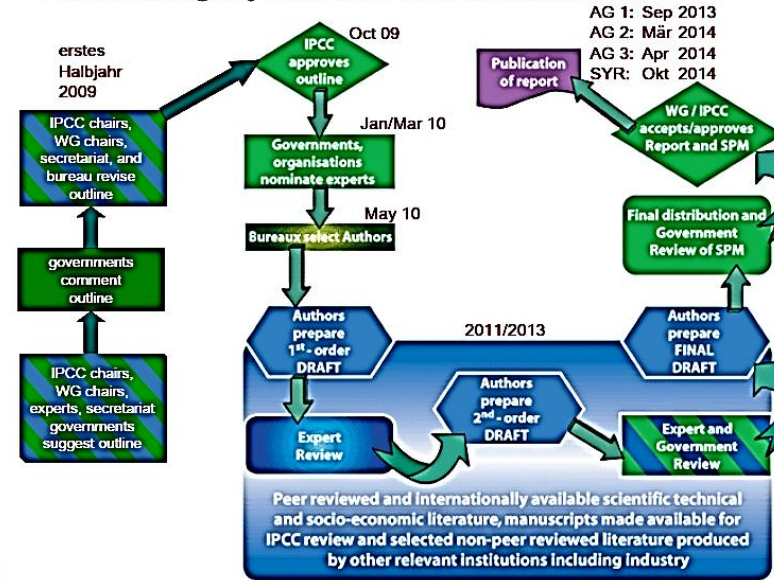
Challenges

- Political Relevance (1992)
 - Disciplinary Balance (1990 ...)
 - Universal Representation (1992→)
 - Scientific Integrity (1996 – “fingerprint”)
- Challenge to reconcile political demands such geopolitical representation with needs for scientific integrity

ORGANIZATIONAL ADAPTIVENESS AND REFLEXIVITY

- three major revisions of rules of procedures (1993, 1999 and 2010)
- capacity to respond effectively
- to adjust its procedures to novel challenges and specific needs of the collaboration

Entstehungszyklus von Sachstandsberichten



IMPROVING INTERNAL TRANSPARENCY

- Focus on internal processes, procedures and management structures
- Improving peer review, quality control, and communication
- quality control procedures rest on traditions of scientific accountability



IMPLEMENTING THE OBLIGATION

- ‘virtual witnessing’ - open to contributing authors/ reviewers and accountable to sponsoring governments
- Processes protected behind “closed doors”
- Not fully transparent to wider broader audiences such as the UN, IPCC observer organizations, the scientific community, non-governmental organizations and the wider public



IPBES

- Role of observers (both as contributors and end users)
- Anne Larigauderie, Diversitas & International Council for Science (ICSU)
 - “the participation of all relevant stakeholders in IPBES is key for the relevance, impact, credibility and legitimacy of the platform.”
- Open question in intergovernmental negotiations

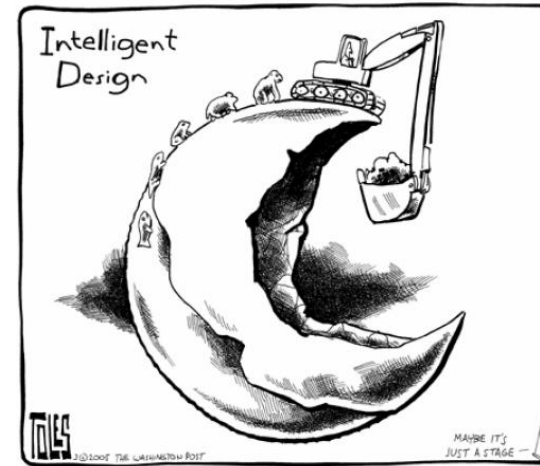


MISMATCH BETWEEN TASK AND STRUCTURE

- Scope and complexity of the task in “an alarming rate”
- the corresponding processes and structures available to address these challenges remained in only very rudimentary form.

Futures challenges:

- How to address the mismatch between the task and institutional arrangements?
- How to combine forms of informal forms of scientific self-organizations with formal standardized forms of policymaking



Reform Efforts

- Necessary but insufficient condition for trust in policy-relevant knowledge
- Addressing the symptoms rather than the underlying causes (mode of interactions with the publics)
- Meeting the expectations of politicians and the public?

“LEAK OF DRAFTS SPEAKS TO NEED FOR NEW PROCESS” (NYT)

- Leakage of a draft of a major report, due to be published next year.
- Picked up by bloggers critical of mainstream climate science
- At Stake: Semi-open review system
- How to maintain the credibility of transparent organization while trying to maintain confidentiality (A. Revkin, NYT)?
- Fit for an era in which transparency will increasingly be enforced on organizations working on consequential energy issue?

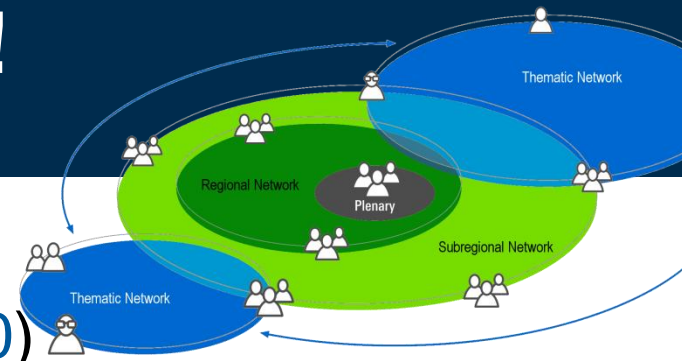
LESSONS LEARNT FROM GEAS?

- Need to map forms of accountability into the institutional arrangement
- To reconcile demands for accountability with requirements for scientific integrity & quality control
- The IAC's independent evaluation as template?
 - to open up and catalyzing the reform process
 - to restoring trust in climate science
- Need to monitor the implementation of reform proposals by an independent body
- instrumental to
 - improving the quality of the assessment
 - ensuring the legitimacy of the process
 - stimulate organizational learning

THANK YOU FOR YOUR ATTENTION!

For more information:

- BMBF-Project 'NESNET'
- (<http://www.ufz.de/index.php?de=5770>)
- (2012): The challenges of building cosmopolitan climate expertise - with reference to Germany. *Wiley Interdisciplinary Reviews: Climate Change*: Vol. 3/1: 1-17.
- (2012): Between Tribalism and Trust: The IPCC under the 'public microscope.' *Nature and Culture*: Vol. 7/2.



COMMENTARY
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LETTERS | BOOKS | POLICY FORUM | EDUCATION FORUM | PERSPECTIVES

LETTERS
edited by Jane Kerr Sills

Fukushima Research Needs World's Support

SERIOUS CONFUSION SURROUNDS THE ACCIDENT AT FUKUSHIMA DAICHI NUCLEAR POWER PLANT with regard to the amount of permissible radiation exposure, particularly in children ("Fukushima serves the low-dose debate," D. Normile, *New Focus*, 20 Mar, p. 508; "Citizens find radiation fear from Fukushima," D. Normile, *New Focus*, 17 June, p. 1368). The primary reason for this confusion is the lack of scientific evidence (1).

On 29 April, Osako Toshiro, Cabinet Advisor and a professor at University of Tokyo who specializes in radiation safety, offered a tearful resignation. He claimed that the 20-mSv limit on annual radiation exposure for elementary school pupils could not be set by the government was too high, and recommended that it should be lowered to 1 mSv/year. The government says that these standards are based on those of the International Commission on Radiological Protection (2). These may be suitable for adults, but there is insufficient evidence to argue that the same standards apply to children.

It is now necessary to initiate a large-scale cohort study of childhood thyroid cancer in the Fukushima region. This study would register all children in the affected region, periodically and accurately measure their internal and external radiation exposure, and follow the children for more than 10 years. This would mark the most important scientific study that Fukushima can now offer to the people of the world.

This study would augment the lessons learned from Chernobyl. Although some middle-term (~10 years) and middle-scale studies have been published on Chernobyl (3–6), most recovery projects lacked economic support (7), and the subtle health effects of low-level radiation exposure have yet to be determined. A long-term and large-scale follow-up study of the Fukushima accident can provide firm and reliable evidence for low-dose effects of radiation exposure on thyroid cancer in children.

Given the current confusion and disorder, it would be difficult for Japanese researchers and the Japanese government to execute such a study singlehandedly (8). However, they should not have to organize the effort alone. The risk of childhood exposure to radiation is a real one for people living in any region of the world. It is time to organize an international joint research team supported by countries worldwide to uncover lessons to be learned from Fukushima for the sake of future humanity.

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1. G. O. Sills, *New Focus*, 4(5) 608 (2011).
2. International Commission on Radiological Protection, "Radionuclide intake from activities," 23 March 2010; www.icrp.org/publications.htm.
3. V. A. Swoboda et al., *Radiat. Environ. Biophys.* 48, 141 (2010).
4. M. O. Sills et al., *Environ. Health Perspect.* 118, 107 (2010).
5. A. V. Swoboda et al., *Environ. Health Perspect.* 118, 93 (2010).

Science-Policy Interface Scientific Input Limited

THE POLICY FORUM ABOUT THE FUKUSHIMA ACCIDENT AND ECOSYSTEM SERVICES SCIENCE INTERFACE (4 March, p. 1139) is feasible of the Platform in strengthening science-policy interface in biodiversity ecosystem services, but does not acknowledge that science policy formation depends solely on scientific facts.

In practice, policy is formed through intermingling of scientific knowledge, judgement, and practical considerations.

1) Establishing an institution to disseminate information, perform assessments, tools, prioritize capacity-building, evaluate policy options will not necessarily provide "robust" science-policy interface (4) because the science-policy interface (1) is not linear (2, 3) and input plays only a small role. The information that policy-makers need from policy and political processes from scientists' perceptions. The policy interface can be bridged only if scientists understand the policy process work with policy-makers to reduce and policy risk, in other than simply providing scientific facts.

IPBES has not met yet (the first session is scheduled in October). Undoubtedly, IPBES will contribute global understanding of biodiversity ecosystem services, but the effective Platform in operating across the policy interface will depend on how

Quellenangaben / Bildrechte

- Slide 3:** Sueddeutsche Zeitung, 17. Februar 2010, Forum, S. 3
- Slide 4:** Quirin Schiermeier (2010) IPCC flooded by criticism. In: Nature 463(4) February 2010, p. 596 | doi:10.1038/463596a (<http://www.nature.com/news/2010/100202/pdf/463596a.pdf>)
- Slide 5:** Cartoon © Marc Roberts 2009 – from the article: **Kurt Kleiner (2009) Climate science in 2009.** In: Nature Reports Climate Change. Published online: 17 December 2009 | doi:10.1038/climate.2010.134
- Slide 6:** © Ron Tandberg – from the presentation by Renate Christ, Secretary of the IPCC: <http://www.ipcc.ch/pdf/presentations/pre-cop-warsaw-2-10-2008/pres-warsaw-role-climate-global-protection-christ.pdf>
- Slide 7:** Cartoon 'Pachauri Davos' from the blogs: http://4.bp.blogspot.com/_rqH4fUbko2U/S1715WH-Lu/AAAAAAAAAP8E/tweZv0iGjAU/s320/Pachauri+begging.jpg & <http://eureferendum.blogspot.com/2010/01/rose-tinted-spectacles.html>
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picture of the article: Richard A. Kerr (2009) Amid Worrisome Signs of Warming, 'Climate Fatigue' Sets. In: Science 13 November 2009 326(5955), pp. 926 – 928. | DOI: 10.1126/science.326.5955.926
- Slide 9:** 'The Unsinkable Molly Brown' – Cover of 'The Unsinkable Molly Brown' (1964), DVD-Release 2000, © Warner Home Video
'It's just a flesh wound' – <http://eureferendum.blogspot.com/2010/01/and-now-for-amazongate.html>
'Anything Goes' – From the album Anything Goes (The New Broadway Cast Recording) © 1988 RCA Victor
- Slide 10:** Cartoon 'Polar bears' © Lisa Benson
- Slide 11:** Cover of The Newsweek, Issue August 13, 2007.
- Slide 12:** Mike Hulme (2010) IPCC: cherish it, tweak it or scrap it? In: Nature 463/ 11 February 2010, 730f | doi:10.1038/463730a
- Slide 14:** <http://www.ipcc.ch/pdf/presentations/pre-cop-warsaw-2-10-2008/pres-warsaw-role-climate-global-protection-christ.pdf>
- Slide 15:** Amanda Leigh Haag (2007) What's next for the IPCC? In: Nature Reports Climate Change Published online: 6 December 2007 | doi:10.1038/climate.2007.73
Jim Giles (2007) Special Report: From words to action. In: Nature 445, 578-579 (8 February 2007) | doi:10.1038/445578a; Published online 7 February 2007
- Slide 18:** Silke Beck, Christian Kuhlicke, Gristoph Görg (2009) Peer 'Climate Policy Integration, Coherence and Governance' - Climate Policy Integration, Coherence and Governance. UFZ-Bericht 01/2009.
Silke Beck 'Das Klimaexperiment und der IPCC: Schnittstellen zwischen Wissenschaft und Politik in der internationalen Politik in den internationalen Beziehungen' - Metropolis; Auflage: 1 (November 2009)