

Introductory Talk to Panel

“From concept to practice: science-policy interfaces for promoting social-ecological transformation”

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1. Science-policy interface: e.g., IPCC and UNFCCC
2. Science-policy interfaces: significance for social transformation?
3. SDGs at the science-policy interface

1. The Nobel Peace Prize 2007

IPCC
INTERGOVERNMENTAL
PANEL ON
CLIMATE CHANGE



**Intergovernmental
Panel on Climate
Change (IPCC)**

Prize share: 1/2



Photo: Ken Opprann
**Albert Arnold (Al)
Gore Jr.**

Prize share: 1/2

The Nobel Peace Prize 2007 was awarded jointly to Intergovernmental Panel on Climate Change (IPCC) and Albert Arnold (Al) Gore Jr. *"for their efforts to build up and disseminate greater knowledge about man-made climate change, and to lay the foundations for the measures that are needed to counteract such change"*

Science-policy interface

“...build up and disseminate greater knowledge about man-made climate change,

and to lay the foundations for the measures that are needed to counteract such change”

- Significance of science-policy interface:
 - Configuration of rights and responsibilities:
 - . What knowledge is required to legitimate political action?
E.g., against certain stakeholders / rights (such as particular CO2 emitters)
 - . What knowledge creates responsibilities for political action?
E.g., to counteract certain negative effects (such as climate change)
 - “Inconvenient truth” = one ought to take action because truth is evident
(but some refuse to act and thus resist truth)

- Policy alternatives (including distinct knowledge basis):
 - No climate change policy
 - Mitigation of CO2 emissions
 - Adaptation to climate change
 - Climate engineering as third option?
- Competing frameworks of science and policy:
 - *“Predict-Then-Act” vs. “Assess-Risk-of-Policy”*
 - (R. Lempert et al. 2004, Characterizing Climate-Change Uncertainties for Decision-Makers: An Editorial Essay. In: Climatic Change, vol. 65, pp. 1-9.
 - Different kinds of knowledge – and uncertainties:
 - . Sound science: proof of cause-effect relations; scientific prediction (w/ uncertainties as justification to not act)
 - . Policy evaluation: assessing diverging outcomes of policy alternatives (thus untightening the potentially limiting role of scientific certainty)

2. Science-policy interfaces: significance for social transformation?

- Climate science (IPCC): scenarios of climate change and its impacts; outlining policy options for decision makers, w/out being prescriptive but, nowadays, by making the case for societal transformation
- Regulatory science: political regulation of health and environmental safety (at national, supranational and international levels)
 - “State of science and technology” / “sound science” mediating between innovation and law, i.e. in part conflicting values and norms (e.g., freedom vs safety / security)
 - Political room of manoeuvre remaining: prevention or precaution?
But: risk management not suited for guiding innovation and societal transformation
- Outlook: intellectual property rights, ethical frameworks, industry standards?

3. SDGs at the science-policy interface

- Agenda 2030: international policy framework for sustainable development
 - History and landscape of competing policy frameworks?



- Transformation of society towards SDGs:
 - *Policy for science* (and technology): linear model of funding research and innovation in support of SDGs (see throughout Agenda 2030)
 - Transformation of science?
 - . Changes undertaken from w/in and outside science: e.g.,
 - . Scientists: addressing outcomes and societal impacts of science
 - . Science policy: funding new programs and organizations (e.g., research and training; synthesis)
 - *Science for policy*: transformative science?
 - . Science advice in support of SDGs to decision makers
 - . Science in support of societal transformation / SDGs: e.g.,
 - . Scientific data, indicators and technologies
 - . Critical examination of science and policy from SSH perspectives
 - . Public deliberations about research and political priorities
- New social contract for science – reconfiguration of global policy making? 8