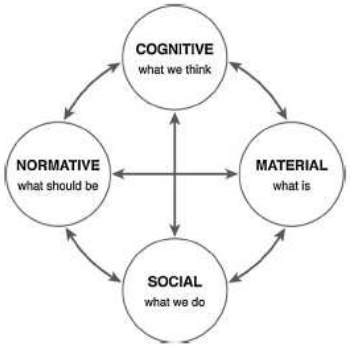

Fig. 1. A model of co-production depicting the interplay between the material, normative, social and cognitive domains.
Derived from Jasanoff (2004a,b).

CO-PRODUCTION – LURES AND PITFALLS

Dr. Silke Beck, UFZ Leipzig

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Structure

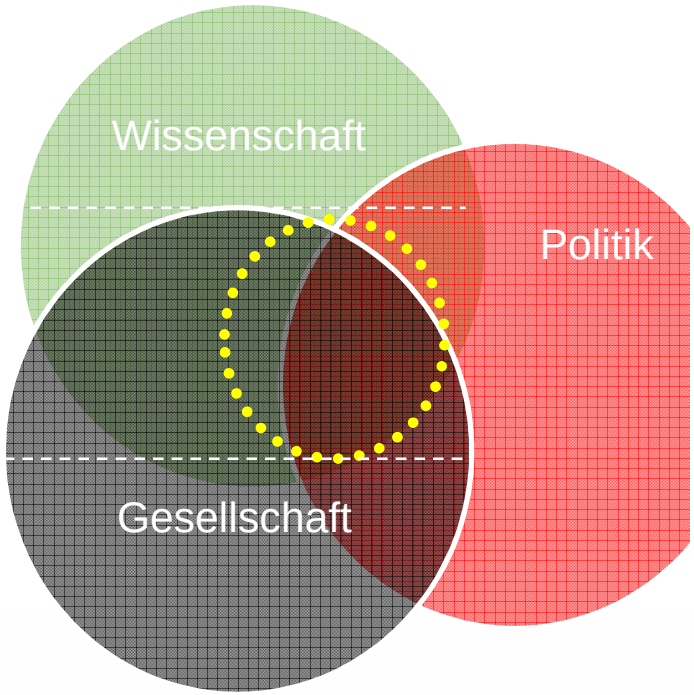
Tacking Stock of Co-Production

I. Research Context

II. Concepts of Co-Production

III. Implications and Consequences

IV. Lessons learnt?



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THE CHALLENGE: RECONCILING DEMAND AND SUPPY

Rio+20 UN Conference:

- science has been asked to be “relevant”
- demand for “usable” information for decision-making

Relevance and “usability” of scientific findings?

II. CO-PRODUCTION

It requires systematic efforts

- Reconcile supply and demands for knowledge in an effective and coherent way
- Align research closely to the needs of the transformation process

First initiatives experimenting with co-design

- Participatory turn?
- New contract of science and society?

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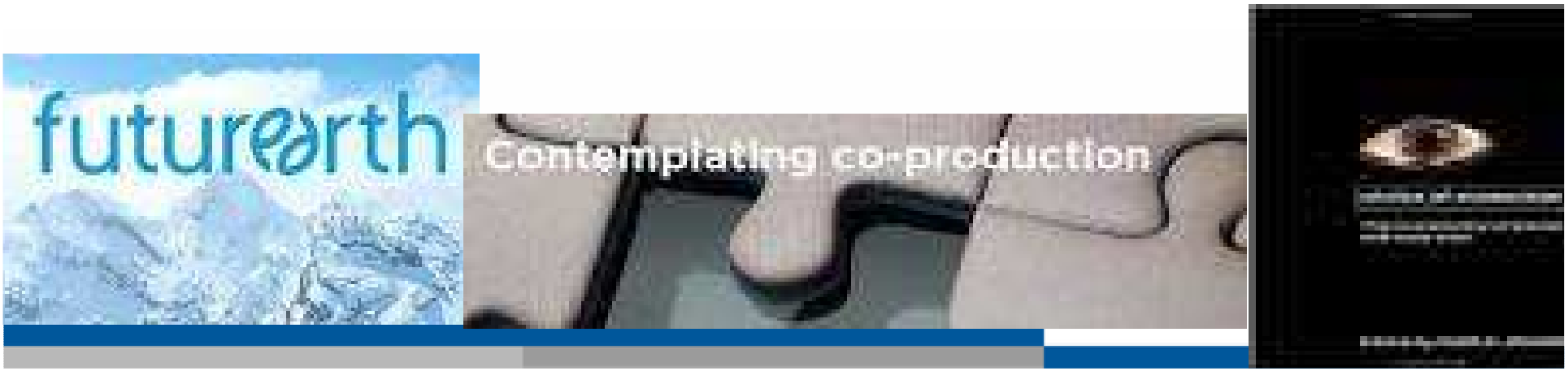
WHAT IS CO-PRODUCTION?

The term ‘co-production’ has a range of meanings ?!?

- a *practical-organizational* one, as adopted by *Future Earth*
- a *conceptual*, *social-philosophical* one (STS)
- Jasanoff introduces the distinction between “weak” and “strong” co-production
- Melissa Leach: trying to translate and exploring middle ground in between



CO-PRODUCTION

"Science needs to be designed and produced in ways that speak to and are relevant to the perspectives, priorities and interests of particular groups" (M. Leach)

- The bottom line reason for doing co-design is *relevance* and *usefulness*
- People will buy into it, because they've already bought into the making of it

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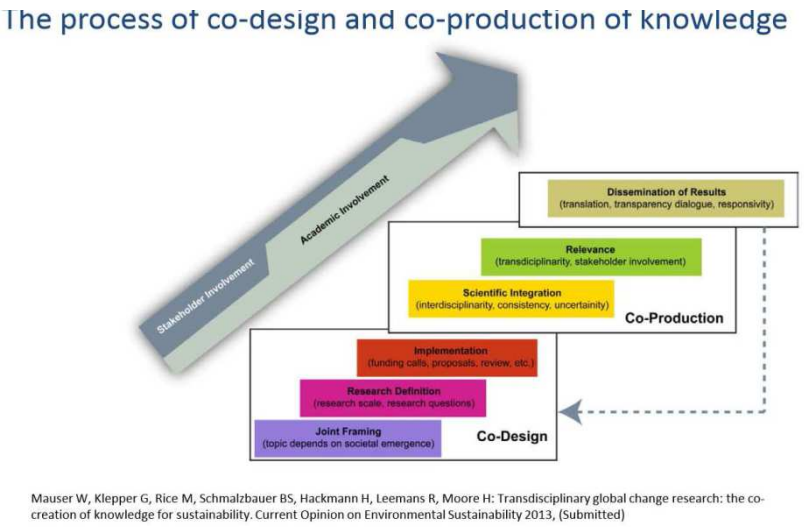
FORMS OF CO-PRODUCTION

MULTIPLE STAKEHOLDERS WORK TOGETHER



Mauser W, Klepper G, Rice M, Schmalzbauer BS, Hackmann H, Leemans R, Moore H: Transdisciplinary global change research: the co-creation of knowledge for sustainability. Current Opinion on Environmental Sustainability 2013, (Submitted)

- to actually carry out research, to generate and apply findings (**Co-Production)**
- to design a scientific research process **(Co-Design)**

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STRONG CO-PRODUCTION
SHEILA JASANOFF

MUTUAL CONSTITUTION OF SCIENCE AND NORMS

- The way a thing is (*ontology*) is inseparable from normative commitments to what ought to be (*norms*)
- constructing a representation of the world as it is a representation of the world as you want it to be

http://www.futureearth.org/blog/2014-jul-23/be-inclusive-you-need-more-voices-qa-sheila-jasanoff

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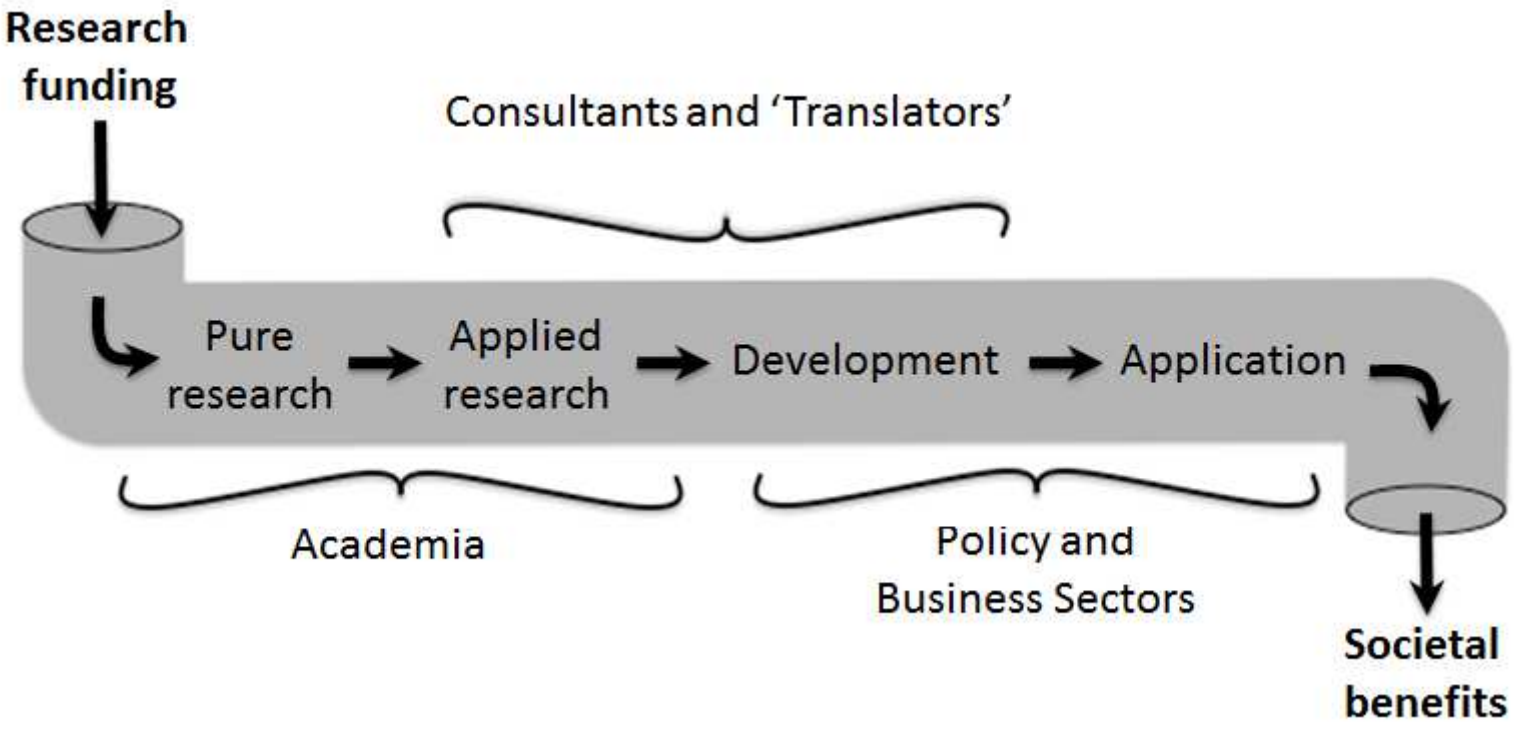
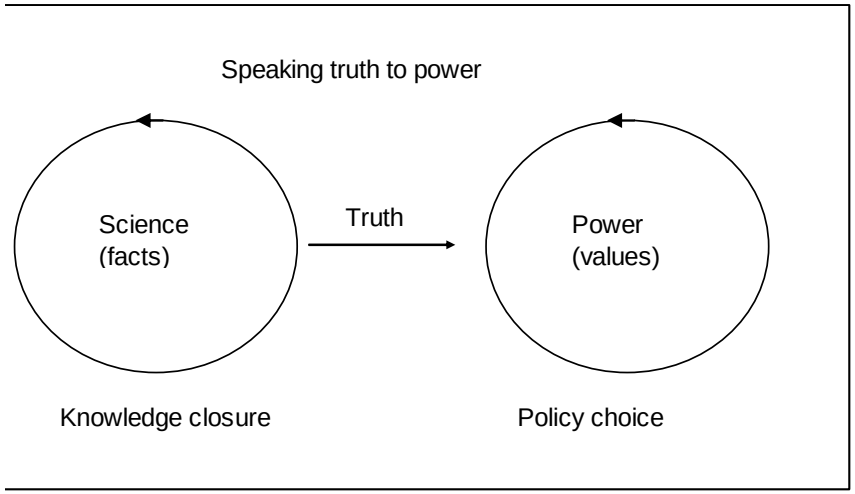


A 'linear model' of science and society

FROM *DETERMINISM* TO *EXPERIMENTATION*



Science determines policy

- More and better information trigger political action

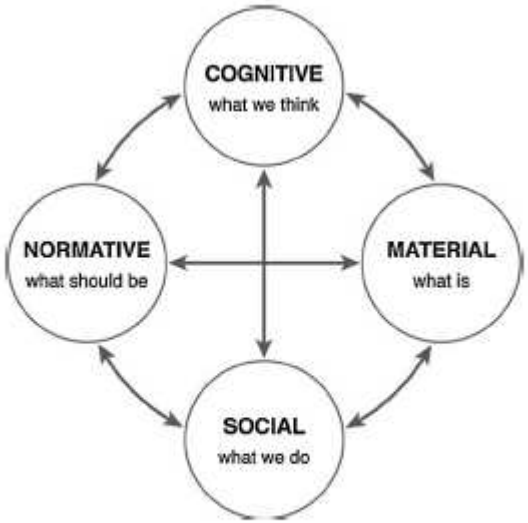


Fig. 1. A model of co-production depicting the interplay between the material, normative, social and cognitive domains.
Derived from Jasanoff (2004a,b).

Mutual interplay

- CoP as experimental process, open and contingent outcomes

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CO-PRODUCTION: MELISSA LEACH

“Any position – any way of looking at the world – taken by researchers or other stakeholders, always contains implicit social and political commitments, that contain views of the world and the way one wants the world to be.”

the design of a scientific enquiry is also the design of a particular view of society and social order (world-building) (http://www.futureearth.org/blog/2014-jul-23/co-design-relevance-and-usefulness-qa-melissa-leach)

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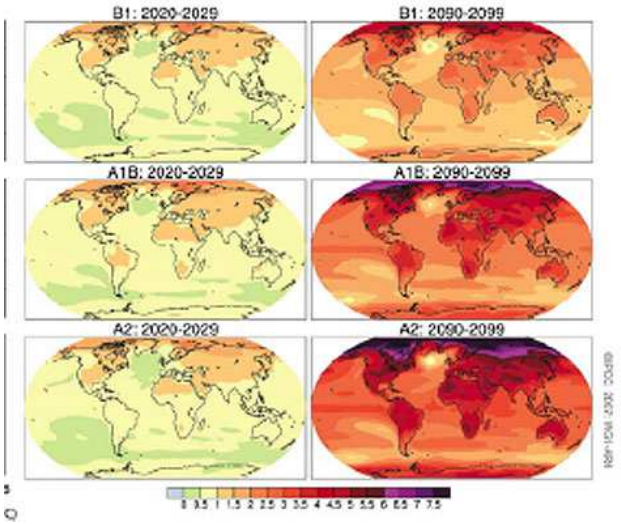
FRAMING (EFFECTS)

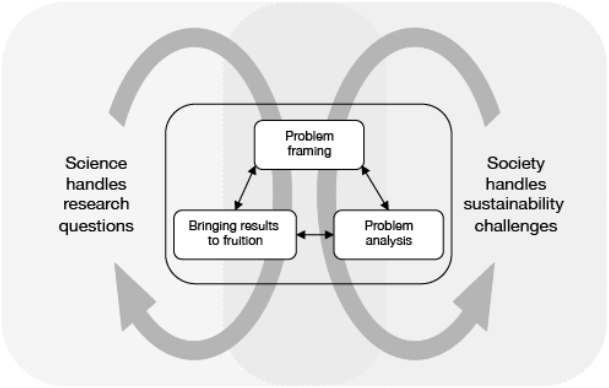


the way in which we frame a problem is inextricably linked to the ways we choose to solve them:

- Framing climate change as global, single and all embracing risk

➢ requires a global, multilateral solution

FEEDBACK LOOPS



co-production of science is putting a vision into action and producing society

LOOP:

'Nature' and 'Society'

INTERTWINED

LOOP:

'Analysis' and 'Behaviour'

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III. IMPLICATIONS AND CONSEQUENCES

Requirements for the scientists and stakeholders involved

- to be “reflective about how we intervene, in word or deed, in the changing order of things” (Jasanoff)
- to be humble and reflective about own positions, recognizing that own views of the world and of what kinds of science and knowledge are appropriate are always positioned and partial (Leach)

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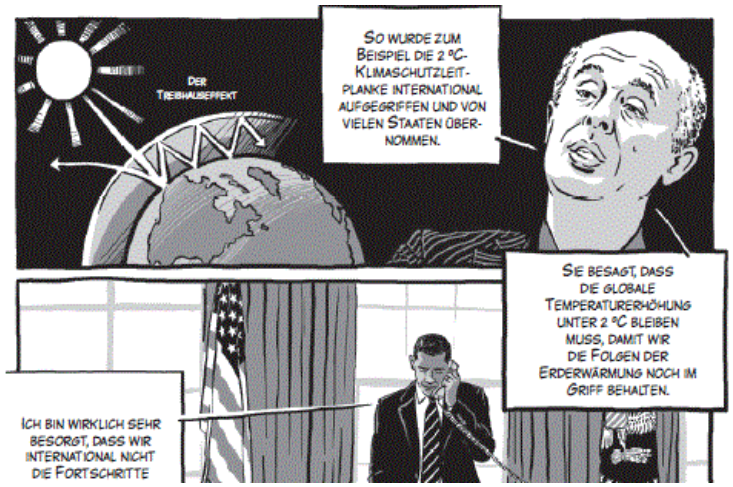
UNCOMFORTABLE KNOWLEDGE

That's not necessarily comfortable for scientists used to '*speaking truth to power*'



- Neutral Arbiter
- More and better information trigger political action
- Scientific evidence as the only authority to justify policy action
- global problems to be solved by expert consensus

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SPEAKING “HONESTLY”

- *Critical scrutiny*: the enterprise of science is always about putting out hypotheses, questions and ideas; opening them up to critique and testing
- Need to lay open
  - Limits of information and the extent of their uncertainty in a spirit of professional *humility* (Jasanoff)
  - Ambiguities in the available knowledge not be concealed behind monolithic claims of scientific certainty
  - Normative commitments

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'TO BE INCLUSIVE, YOU NEED MORE VOICES'

“Local knowledge and stakeholders should be a vital part of Future Earth's co-design and co-production” (Leach)

- people living with climate change who might be affected by mitigation efforts need to be involved
- they play key roles at national, regional and local levels
- “The perspectives of people who are dealing with ecosystem and sustainability processes in everyday urban and rural settings are crucial” (Leach)

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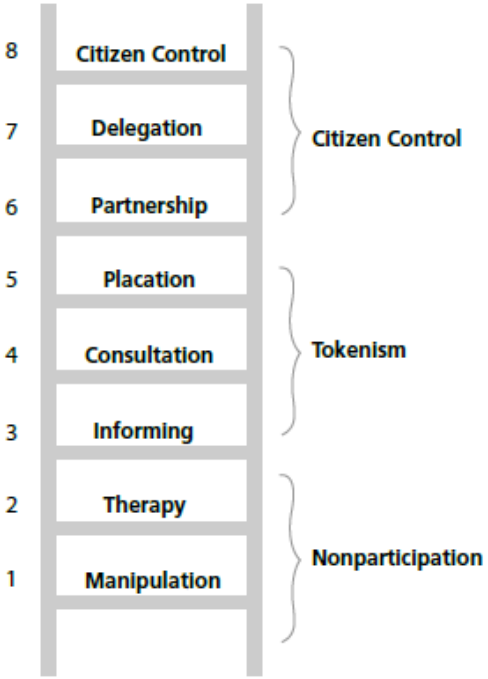
FROM PARTICIPATION TO GIVING VOICE



Arnstein's Ladder (1969)
Degrees of Citizen Participation

(Dis-)Empowering effects

Risk of de-skilling and marginalizing local voices by

- framing questions as a purely scientific issue
- closing down discussions from the outset
- substituting the epistemic authority of experts for all experience of society
- neglecting questions of representation and legitimacy

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INSTITUTIONAL DESIGN

Challenges: Linking up scales and designing platforms to give a voice to a full diversity and plurality of views and knowledges

Taking into account practical things:

- who's sitting at the table?
- who speaks for the local/ global?
- where are discussions held?
- how are they chaired?
- how is participation organized?
- how are stakeholders invited?

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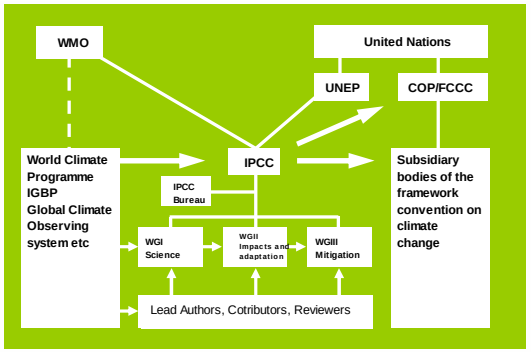
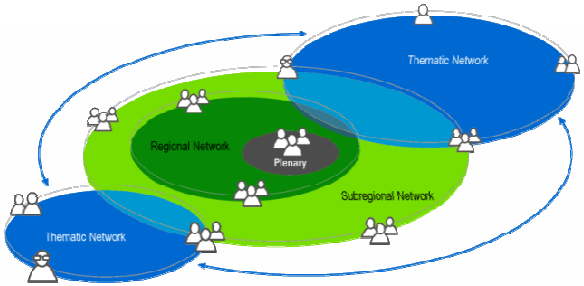
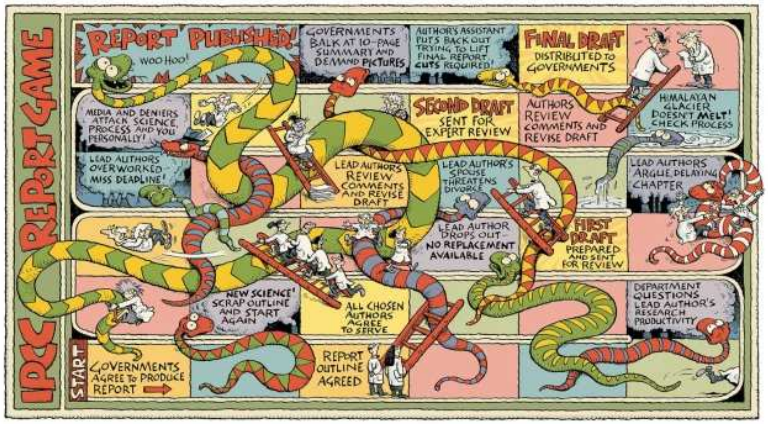
INSTITUTIONAL DYNAMICS

Need to:

- Address causes rather than symptoms: such as constellations that drive such organizations towards premature closure (power relations + lack of capacities… access to information)
- Improve organizational responsiveness and institutional reflexivity







IV. CONCLUSIONS

no simple solution/ panacea – one size fits all model

Opening up to choices in co-production

- by bringing in generally neglected knowledge sources, voices

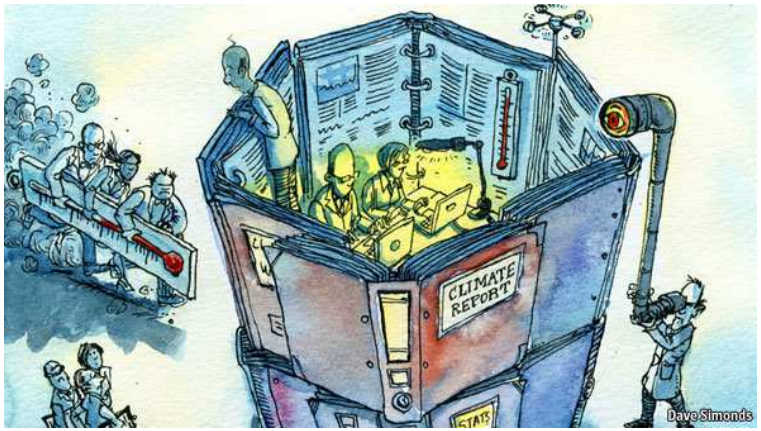
RE-POLITICIZATION BY A PLURALITY OF ACTORS

- Opening up to alternative paths and options
- Catalyzing important political debates about societal transformation towards sustainability



OPEN QUESTIONS

- How to distinguish from *legitimate* and *non-legitimate* forms of co-production?
- How to design novel processes and arrangements?
- How to address real life conditions and capacities/ societal contexts & institutional dynamics?
- How to render co-design responsive, transparent and democratically accountable?



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THANK YOU FOR YOUR ATTENTION!

FOR MORE INFORMATION:

http://www.ufz.de/index.php?de=5770

http://www.ufz.de/index.php?en=31833


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Many facets of an influential ecologist 699

Rotary motor view 704

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LETTERS

edited by Jennifer Sills

Fukushima Research Needs World's Support

SERIOUS CONFUSION SURROUNDS THE ACCIDENT AT FUKUSHIMA DAIICHI NUCLEAR POWER Plant with regard to the amount of permissible radiation exposure, particularly in children ("Fukushima revives the low-dose debate," D. Normile, News Focus, 20 May, p. 908; "Citizens find radiation far from Fukushima," D. Normile, News & Analysis, 17 June, p. 1368). The primary reason for this confusion is the lack of scientific evidence (1).

On 29 April, Osako Toshiso, 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 playground use 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.

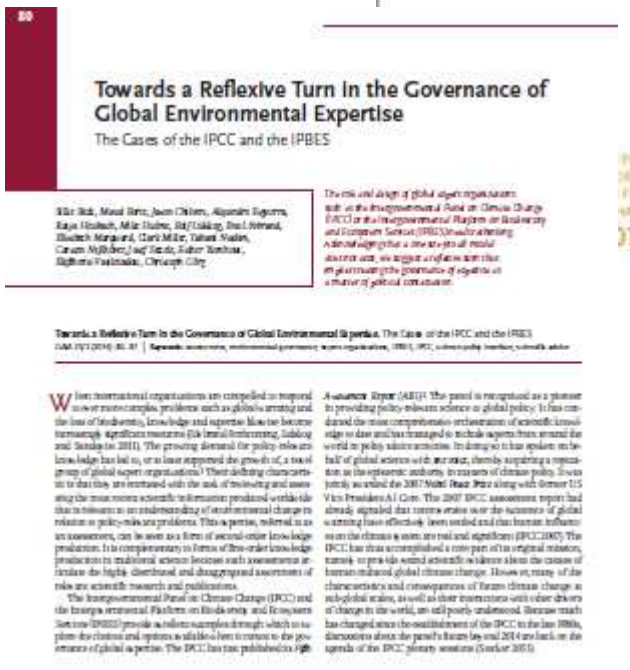
It is now necessary to initiate a large-scale cohort study of childhood thyroid cancer in the Fukushima region. This study would register all children in the affected region, periodically and accurately measure their internal and external radiation exposure, and follow the children for more than 30 years. 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

Science-Policy Interface Scientific Input Limited

THE POLICY FORUM ABOUT THE PROP Intergovernmental Platform on Biodive and Ecosystem Services (IPBES) C. Perrings et al. ("The biodiver and ecosystem services science-p interface," 4 March, p. 1139) refers t role of the Platform in strengthening science-policy interface in biodiversity ecosystem services, but does not addres fact that science policy formation doe depend solely on scientific facts.

In practice, policy is formed throug intermingling of scientific knowledge, pol judgment, and practical considerations 2). Establishing an institution to ide information, perform assessments, de tools, prioritize capacity-building (3), evaluate policy options will not neces provides "robust ... science/policy interf (4) because the science-policy interfa


Towards a Reflexive Turn in the Governance of Global Environmental Expertise

The Cases of the IPCC and the IPBES


GAiA

I DON'T