

In this Issue:

Feature Article	p. 1
IA News	p. 3
TIAS News	p. 3
Events	p. 3
Publications	p. 4



The Society

The Integrated Assessment Society is a not-for-profit entity created to promote the community of inter-disciplinary and disciplinary scientists, analysts and practitioners who develop integrated assessment. The goals of the society are to nurture this community, to promote the development of IA and to encourage its wise application.

Integrated Assessment Defined

Integrated Assessment (IA) can be defined as the interdisciplinary process of integrating knowledge from various disciplines and stakeholder groups in order to evaluate a problem situation from a variety of perspectives and provide support for its solution. IA supports learning and decision processes and helps to identify desirable and possible options for addressing the problem. It therefore builds on two major methodological pillars: approaches to integrating knowledge about a problem domain, and understanding policy and decision making processes. IA has been developed to address issues of acid rain, climate change, land degradation, water and air quality management, forest and fisheries management and public health.

Feature Article

Co-production of knowledge: a new trend in global assessments?

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The co-production of knowledge has received a lot of attention lately in a variety of policy and scientific arenas. Recognizing the importance that this process has in Integrated Assessments a TIAS-hosted webinar led by Marcela Brugnach (University of Twente) in collaboration with Silke Beck (Helmholtz Centre for Environmental Research), and Susi Moser (Susanne Moser Research & Consulting and Stanford's Woods Institute for the Environment) addressed the topic this past June. The event was organized as a dialogue of 'Questions and Answer' rounds. The topic was explored from both a conceptual and a practical perspective examining the experiences of Future Earth¹. The questions and issues addressed are described in this article.

Why are we talking about knowledge co-production?

Conceived as the process of bringing a plurality of knowledge sources and types together (Armitage et al. 2011), the co-production of knowledge is promoted as a democratic way of generating knowledge that is ready for action. As such, it is becoming pivotal to international research initiatives like Future Earth and the European Joint Programming Initiative (JPI) for Climate, whose focus is on policy-science interactions and the integration of disciplinary, interdisciplinary and transdisciplinary knowledge.

According to Beck, regardless of whether the concept of knowledge co-production is really new, or just old wine in new bottles, it is important is to understand the reasons why

co-production is undertaken, and what the innovative aspects of it are. For example, when it comes to the global environmental change and global assessments communities a participatory element requiring stakeholder involvement can be observed. A number of international science-policy initiatives are calling for stakeholder engagement as a means of making scientific knowledge more relevant and usable.¹ Future Earth (<http://www.futureearth.org>) is the most visible one.

Moser pointed out that for Future Earth, the concept of co-production is embedded in its vision by: 1) achieving greater sustainability through ground-breaking interdisciplinary science; 2) producing integrated knowledge products and services needed by partners. But how do we know what they need? – Only by interacting with them from the outset of the research process; 3) pioneering and refining the process of co-production and understanding how to do it well; and, 4) building the capacity to do interdisciplinary, international and integrated research.

Moser acknowledges that even though the concepts of knowledge co-production and transdisciplinarity have been around for a long time, they still constitute a challenge for a global research platform like Future Earth. This is mainly because in global and international contexts co-producing and sharing knowledge is much more difficult than when undertaken locally. She also emphasizes that when it comes to knowledge co-production there is not a single recipe for Future Earth for how to do it.

What does knowledge co-production refer to? And how it is defined?

Critically examining the meaning of co-production, Beck states that the use of the term "co-production" has evolved following three different trajectories:

The first was introduced in local environmental studies in the 1970s to refer to scientists and stakeholders working together

1. The global research platform *Future Earth* promotes the *co-design and co-production of knowledge* by including stakeholders at different stages of the research process. See <http://www.futureearth.org/blog/tags/co-production>.

to jointly advance research/knowledge (see Ostrom in the mid-1970s).

The second was introduced in Science and Technology Studies in the 1980s, primarily in reference to the work of Shapin and Schaffer as well as Latour to refer to the theoretical idea that knowledge and social order (or nature and society or science and politics) are mutually constituted.

A third can be derived from attempts to assess the effectiveness of global environmental assessments, (e.g. Mitchell et al., Cash et al. 2003) and practical experiences to integrate them into research projects and stakeholder processes (Sarkki et al. 2015).

According to Moser, Future Earth tends to build more on the tradition of global environmental assessment projects, but without being disconnected with what Ostrom and Latour have said on these matters. Future Earth needs co-production carried out in a more effective way than what has been accomplished until now in the global arena. So, for Future Earth there is not just one definition of co-production and a single recipe for carrying it out. Future Earth is platform to stimulate interaction among researchers with different theoretical and methodological backgrounds and diverse experiences. In Future Earth there is a very strong emphasis on co-designing research agendas and questions, as well as on the actual co-production of knowledge, the involvement of stakeholders or partners, and on the co-dissemination of the results.

So, what is meant by co-production and how it is defined varies a great deal depending on project and context. Future Earth is made up of core research projects from traditional research programs as well as new ones. It involves experience, sophistication and eagerness to co-produce. Some projects are strongly co-produced, involving co-design, coproduction, co-evaluation and co-dissemination, while others only include only nominal participation. Moser summarized that in Future Earth there is a very wide spectrum of co-production. This is needed so that Future Earth can build the capacity in carrying out co-production more effectively. It is a broad all-encompassing definition. There is no one recipe.

What is knowledge in a co-production process?

In Future Earth, there is no one way in which knowledge is defined and in which different forms of knowledge are dealt with. For Future Earth there are multiple ways of knowing and multiple forms of knowledge. Knowledge is recognized (at least by those interested in directing Future Earth) as a strategic tool. Knowledge refers to any sort of knowledge (e.g., scientific peer reviewed, expert disciplinary knowledge, indigenous knowledge, stakeholder tacit knowledge). For knowledge to be useful, it must be used. Generating usable knowledge may imply different roles for scientists, acting politically, participating in polis, and in the public sphere.

How do we foster links between knowledge and action?

In Beck's opinion co-production is often taken as the panacea for rethinking and restructuring knowledge production to surmount the usability gap and to bridge science and action. The assumption that if knowledge is co-produced it will be automatically taken up by decision makers is risky. This is the case for climate change policy, where there is no direct line from science to decision making. Even when knowledge is useful it does not mean that it will have an impact in decision making. It is important to consider knowledge coproduction within expert bodies and in particular contexts or settings, and how that knowledge is used and integrated in decision making

as well the impact it can have.

Jasanoff's (2005) concept of co-production offers a new lens through which to examine the relationships between science and environmental action. Accordingly, STS research has demonstrated that scientific knowledge alone is rarely effective in compelling public policy (Lidskog and Sundqvist 2015). This suggests a need to shift focus from the production of expert knowledge and truth claims to the ways knowledge resonates with and is reframed in politics. To this end, Beck suggests a two-step approach; first, focusing on how knowledge is co-produced; and second, focusing in how knowledge travels and resonates in political contexts.

Moser thinks the challenge for Future Earth is making scientific knowledge more useful, connecting science and action in a more tangible way than before. In this regard, she thinks it is important to acknowledge that knowledge will be used just because it is good (e.g. IPCC). This is not a matter of defining a research agenda and reporting back, while scientists discuss among themselves as if in an interestfree vacuum. For her the closer the interactions of knowledge holders and users the better. Trust relationships and accountable organizations (e.g., boundary organizations) can be an important factor in closing the divide between knowledge and action.

How do we assess and evaluate co-production practices?

Assessing and evaluating co-production depends on the function of co-production and on how success is defined. From a theoretical point of view, legitimacy, salience and credibility are criteria for measuring success. However, the question of whether or not these criteria are enough or if different criteria are needed remains unanswered. Moser states that in Future Earth there is a well-defined and clear vision around which there is a process to develop an evaluation framework with specific criteria, a task that is highly challenging at global, national, regional levels, particularly because it is difficult to operationalize. Doing so demands indicators and metrics to show success, and not to fall in the trap of measuring publications and outputs, but to account for the actual impact. For Future Earth this is work in progress.

For more details on the Webinar refer to: www.tias-web.info/webinars/

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IA News

What Works Global Summit “Using evidence in formulating better policies”, took place in London in the last week of September. The What Works Global Summit, as one of the largest global conferences on evidence, brought together policymakers, programme managers and researchers from over 25 countries to discuss their experience in using evidence in policy making processes. In many sessions issues like the use of generated evidence, best practices in knowledge translation, and improved institutional approaches to producing and using evidence were addressed and covered a wide range of sectors such as child and social welfare, education, health, humanitarian aid, crime and justice, environment and climate change, and gender. More information:

<http://www.3ieimpact.org/en/events/3ie-conferences-and-workshops/wwgs/?popup=true>

TIAS News

Annual General Meeting

On July 1st TIAS held its Annual General Meeting. Members discussed ongoing activities (report series, webinars and the SIA working group) as well as exploring new activities (development of an expert database, early career network, an IA workshop series, affiliations with scientific journals, working group on IA principles,). The executive board looks forward to advancing these activities together with TIAS members.

New brochure

This summer we worked with a designer to refresh our brochure and logo. The new brochure is available from: http://www.tias-web.info/wp-content/uploads/2016/08/TIAS_Brochure_2016.pdf

Members can obtain print versions through the Secretariat that can be used to promote TIAS in your organization or when attending conferences or events.

SIA Working Group

On September 23rd, the working group on Social Impact Assessment held an online meeting. The individuals involved are interested in how SIA can be applied in the context of climate change and natural hazards. The group welcomes new members and ideas and is seeking a chair who could take the lead in developing the working group's activities. Contact: [Info\[at\]tias-web.info](mailto:Info[at]tias-web.info)

Webinar on Social Learning

On November 16, 2016 at 09:00 CET, TIAS together with the Institute of Environmental Systems Research of Osnabrück University, will host a webinar on the conceptualization and measurement of learning. This webinar is one of the follow-up activities of three sessions on learning that members of the institute, Johannes Halbe, Claudia Pahl-Wostl, Geske Scholz and Joanne Vinke-de Kruijf, held at the International Sustainability Transitions (IST) Conference 2016 (ist2016.org) in Wuppertal, Germany in early September. They are currently establishing a so-called “Learning Community” and welcome the participation of those interested in exchanging on the theme social learning and learning in transitions. In addition to these learning sessions, the IST conference featured a few other sessions organized by TIAS members and turned out to be an excellent opportunity to meet and catch up with other TIAS members.

Newest Member

Louisa Kistemaker is a PhD candidate in the Water Engineering and Management group at University of Twente. Her transdisciplinary research focuses on resource and water governance and knowledge frames in collective decision making processes. She is particularly interested in tacit (i.e. embodied, experienced, cognitive and relational) aspects of knowledge. In her PhD research, she is investigating the role of bridging knowledge frames in multiscale negotiations in the implementation of the SDG 6 “Ensure availability and sustainable management of water and sanitation for all” where she combines performance arts-based research with participatory modeling.

Events

4-8 December 2016, 7th International Nitrogen Initiative Conference (INI 2016), Melbourne Cricket Ground, Victoria, Australia. The conference, organized by the International Nitrogen Initiative, will address the global challenge of identifying “Solutions to improve Nitrogen Use Efficiency for the world”. It brings together researchers, industry and policy organisations to discuss nitrogen cycling and management, crop and animal production, emissions and environmental impacts. More information: <http://www.ini2016.com/>

28 April – 1 May 2017, Workshop “Adapting to Climate Change: Actions, Implementations and Outcomes”, Notre Dame, Indiana, USA. The workshop will showcase cutting edge social science research on climate change adaptation focusing on policy change, policy outputs, and policy outcomes. More information: <https://science.nd.edu/undergraduate/minors/sustainability/events/>

4-7 July 2017, the international meeting of the **EMES International Research Conference on Social Enterprise**, Louvain-la-Neuve, Belgium. The conference will bring together researchers working on social innovation, social entrepreneurship, commons, sustainable transition, popular economy, etc. and research communities related to the third sector (non-profit sector, cooperatives, social economy, solidarity economy and civil society). Abstract submission deadline is 9 January 2017. More information: <http://emes.net/events/conferences/6th-emes-international-research-conference-social-enterprise/>

10-13 July 2017, the **global conference of the International Association for the Study of the Commons**, Utrecht, the Netherlands. The International Association for the Study of the Commons (IASC) is organizing the conference “Practicing the commons: Self-governance, cooperation, and institutional change” to exchange with academics, practitioners, and others interested in the field of commons, common-pool resources, and cooperatives. Abstracts can be submitted until 15 October 2016. More information: <http://www.iasc2017.org/>

18-21 June 2017. **8th International Sustainability Transitions Conference**. Gothenburg, Sweden. The event will devote special attention to the challenges confronting those wanting to take action and do more. What understanding and conclusions can transition scholars bring to the table, and what are emerging theories and findings? Deadline for abstracts is 10 December Opens 1 november). <http://ist2017.org/>

Publications

de Boer, C., Vinke-de Kruijf, J., Özerol, G., & Bressers, H. 2016. Collaborative Water Resource Management: What makes up a supportive governance system? **Environmental Policy and Governance**, 26(4), 229-241.
<http://dx.doi.org/10.1002/eet.1714>

Kowarsch, M., 2016. **A Pragmatist Orientation for the Social Sciences in Climate Policy – How to Make Integrated Economic Assessments Serve Society**. Springer. The book systematically addresses the trade-offs between scientific credibility, policy-relevance, and legitimacy, which social scientists face when giving policy advice in the context of the IPCC assessments. The author develops a science-policy model and guidelines for doing assessments of climate policies that are based on John Dewey's philosophy. The idea is to scientifically explore the practical implications of different climate policy options together with stakeholders in an interdisciplinary way to facilitate an iterative, deliberative public learning process concerning disputed policy issues. The book is available at:
<http://www.springer.com/gp/book/9783319432793>

Scientific Advisory Board. 2016. **Report of the Scientific Advisory Board to the UN Secretary-General on The Future of Scientific Advice to the United Nations**. The report provides a summary of the Boards work in the areas of the role of science, the data revolution, the interface of science, policy, and society as well as efforts to reduce inequalities and identifies grand challenges. It contains recommendations for policy makers, scientists and other stakeholders on the integration of science into policy making. The full report can be downloaded from:
<http://unesdoc.unesco.org/images/0024/002458/245801e.pdf>

Vinke-de Kruijf, J. and Pahl-Wostl C. 2016. A multi-level perspective on learning about climate change adaptation through international cooperation, **Environ. Sci. Policy**. Online first: <http://dx.doi.org/10.1016/j.envsci.2016.07.004>

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TIAS Membership fees:

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Students € 15/ US\$ 20 annually

Institutions: € 200/ US\$ 250 annually