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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

(Photo: U. Meissner ©)

Beyond SDG indicators: Exploring the role of IA in implementing the sustainable development goals

by Laszlo Pinter, Professor, Central European University, Hungary, and Senior Fellow, International Institute for Sustainable Development, Canada

Integrated assessment has been conceived as a field specialized in tackling real world science-policy problems that are technically and politically complex and carry significant risk and uncertainty. Already used in challenging global policy processes covering, for example, biodiversity and climate change, IA is seen as well positioned to support the implementation of sustainable development goals (SDGs).

In order to explore this proposition, TIAS held two webinars in early 2016. The first event on February 2 covered the IA / SDG interface from the conceptual and strategic point of view through talks by Mark Levy, Deputy Director of the Center for International Earth Science Information Network (CIESIN) at Columbia University; David O'Connor, former Chief of the Policy Analysis and Networks Branch at UN DESA during the SDG negotiations and currently with World Resource Institute's SDG Delivery Team; and Enrico Giovannini, former OECD Chief Statistician and Minister of Labour in Italy and presently professor at the University of Rome 'Tor Vergata'.

The second webinar on April 12 looked at IA tools that could support SDG implementation and transition planning with Paul Lucas, Researcher from the Sustainable Development and International Climate Policy unit at the Netherlands Environmental Assessment Agency; Marco Sanchez-Cantillo, Senior Economics Officer at the Development Policy and Analysis Division of UN-DESA and Matteo Pedericini, Director of Planning at the Millennium Institute.

Overall rationale for linking SDGs and IA

The rationale for organizing the two events was the fact that the SDG agenda gave rise to a revived interest in measurement and indicators as instruments for tracking progress (United Nations Economic and Social Council 2015). While the interest is not new, the political momentum behind the goals created a context within which indicators play an important role, in contrast with cases when sustainability-related indicator systems are developed based on a priori assumptions about their use without formal expectations of a policy process.

According to current thinking, indicators will play key roles in the governance of global goals from diagnosing baselines to specifying targets and tracking progress. They are seen as essential for turning broad, often qualitatively expressed SDGs into tangible targets that can be monitored, quantified and reported on, not unlike those used in the measurement, reporting and verification (MRV) mechanisms of other widely accepted international regimes such as the UN Framework Convention on Climate Change (UNFCCC) (United Nations Climate Change Secretariat 2014).

However, while indicators answer some important questions about status and performance, SDG implementation will require more than that: it will need the grounding of target setting, strategy development, program planning and delivery in evidence projected into the future. For that indicators are a must, although not only as discrete metrics but as elements of analytic frameworks and integrated assessment models (IAMs) suitable for studying SDG implementation options in real-world settings.

Going beyond business as usual in measurement

As pointed out by Marc Levy, a fundamental difference between the earlier Millennium Development Goals (MDGs) and SDGs is the latter's full coverage of human aspirations. With this radically wider scope comes not simply a larger set of issues, but a different mode of operation where data is not

simply a technical detail in progress reporting but is used for navigating a complex, interconnected issue landscape across different disciplines, time horizons, scales and interests. The SDGs call for a new mode of analytics where data and analysis are as intertwined as the issues themselves and span the entire policy cycle from visioning to implementation, performance reporting and adaptive learning.

Enrico Giovannini reminded the audience that new uses of data are intrinsically linked with a transformation of what data is collected, and how it is collected, accessed and presented. By the time of the approval of the SDGs in September 2015, a data revolution was well under way, manifested through countless grassroots indicator initiatives, legitimized by highlevel political events such as the OECD's World Fora series on Measuring the Progress of Societies, and backed up by a UN Statistical Commission-led effort on SDG indicators.

As a key element of the data revolution, technical advances in measuring the elements and determinants of well-being are in sync with the broader ambitions of the SDGs. Giovannini challenged the audience to imagine a Republic of Well-being as a fictitious country, fully dedicated to pursuing the SDGs, and laying out a roadmap that could lead to its realization. Besides making sure its national accounts cover wealth in a comprehensive sense (not only economic but also social and natural capital), the Republic of Well-being would also have a governance system that operates without structural siloes, making use of cross-sector strategies and integrated policy assessments.

What do the SDGs mean for IA

The interest in the SDGs – and indeed sustainable development in earlier days - grew out of a political recognition that poverty eradication and economic development cannot be sustained without seriously and systematically addressing their social and environmental conditions. Even though they were not developed with an explicit conceptual framework in mind, the SDGs are tightly interlinked. David O'Connor pointed to the need for viewing the SDGs as an interconnected network of targets and to consider the implications for policy making and analysis.

The challenge for policy making is that goals and targets alone don't tell us what type and what level of effort is required to achieve them, and how much progress in one important target (e.g., on water) is sufficient to achieve another (e.g., on health). Policymakers need to find the SDG(s) directly relevant for their portfolio, and placing it in the center, analyze their interlinkages - dependencies or reinforcements - with other goals and targets, defining a manageable subsystem of goals and targets in the overall SDG framework (Weiss et al. 2014).

According to O'Connor the implications for strategic planning and policy implementation includes starting with a big-picture perspective of interrelationships, examining goals from multiple perspectives and building broad ownership through joint planning and coordination. Integrated assessment models and scenarios can be used to map interdependencies between the goals, point to possible synergies and tradeoffs and help ensure progress is coherent.

IA tools for SDG support

In order to realize the potential contribution of IA to SDG delivery, there is a need for turning the potential into tools, practice and results. Given the wide range of thematic and policy contexts and evolving decision-maker needs on the one hand and the diversity of IA tools and approaches on the other, an exploration of options has started. The three approaches and set of tools showcased in the webinar underscore the earlier point that the investments made in the IA community over the last years in preparing contributions,

e.g., for thematic global assessments, represent a solid starting point for supporting SDG implementation from global to national and lower regional and local levels.

Advanced exploratory work is happening in terms of modelling tools, application of model results to analyze implementation scenarios, and modes of interaction with social actors. The tools discussed by the three presenters represented three different approaches: first, expanding mainstream economic models (CGE) to 'external' environmental and social issues that are beyond the coverage of standard macroeconomic models (Marco Sanchez-Cantillo); second, using a suite of linked integrated models (IMAGE, GLOBIO etc.) organized around a coherent conceptual framework with drivers, impacts and responses (Paul Lucas); and third, working with self-contained integrated models (iSDG), built on the platform of an earlier already established core (Threshold 21) (Matteo Pedericini).

IA models can help formalize the interlinkages between the SDGs as a network of targets and explore relationships between alternative policy pathways and their impacts on SDG indicators and targets as they unfold over time. This can involve using macroeconomic and complementary noneconomic model results to identify effective national development strategies that take a wider range of SDGs into account. It can also involve testing the performance and impact of a suite of policy or behavioural options on a wider range of interrelated SDG areas. This can not only help assess distance to target at the end of the implementation period, but also point out synergies and tradeoffs. Alternatively, backcasting can be used to construct alternative implementation pathways to a common desirable target but involving different suites of strategies, tradeoffs and synergies.

Overall, at this stage of IA modelling the emphasis is on interaction with policymakers to make sure IA and modelling responds to specific needs and builds capacity in countries to use models and model results. IAMS can help make goals, targets and indicators transparent, as well as identify tradeoffs and synergies, cross-scale and cross-sectoral connections, inertia, and the level of effort required to achieve targets and uncertainties. As Lucas pointed out, IA modelling results to date seem to point to the importance of understanding how far piecemeal measures can go, and where the need for transformation is.

The two webinars underscored the need for indicators in SDG implementation but then going beyond this with the use of analytics that IA can provide. Initiatives such as 'The World in 2050'and the growing number of national SDG implementation programs indicate increasing interest in the potential of SDGs.

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United Nations Economic and Social Council. (2015) Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators. E/CN.3/2016/2. Available at: http://unstats.un.org/unsd/ statcom/47th-session/documents/2016-2-IAEG-SDGs-E.pdf

Weiss, N. et al. (2014), Cross-sectoral integration in the Sustainable Development Goals: a nexus approach, SEI Discussion Brief.

For more details on and recordings of the two SDG webinars are available at: www.tiasweb.info/webinars/

TIAS news



TIAS-Latin America: a new Spanish-language regional chapter for the IA community

By Matt Hare, Marcela Brugnach and Ana Peña del Valle Ilsa

A year after the festive challenge to the IA community in the Decembre 2015 issue of the TIAS newsletter, a new Spanish-language regional chapter has been planned, formally opened, and will become operational in the new year.

Whilst TIAS- Latin America (TIAS-LA) is obviously dedicated to supporting the goals of its mother organisation - to nurture the IA community; promote the development of IA, and encourage the wise application of IA - more specifically, TIAS-LA is also dedicated to promoting the further development in Latin America of Integrated Assessment as a tool for supporting successful decision-making in a complex world, and for actively preventing policy and management errors. TIAS-LA promotes the view that this is best achieved through integrative, participatory, locally-relevant and systemic approaches to IA that deal explicitly with issues of complexity and uncertainty in a changing world governed by the uniqueness of place. It seeks to be a bridge between practitioners, policy makers and academics, as well as between Latin America and the rest of the world, supporting the transfer of the best knowledge and tools, in both directions across this bridge.

The opening of TIAS-LA was celebrated at the 6th National Congress on Climate Change Research, held in Mexico City, during the special session co-organised by TIAS and the Research Programme on Climate Change (PINCC) at the National Autonomous University of Mexico (UNAM) on the 18th of October. The session, closely linked to the "Grupo de Adaptación" of the Mexican National Network on Climate Change (CLIMARED), was on "New integrated tools for adaptation to climate change, from the local to the national" levels and featured invited guests from the Latin American region, including Dr. Carlos Rungruansakorn and Dr. Ana Luisa Toscano representing the Environment Ministries of Chile and Mexico, respectively, as well as Dr. Byron Miranda of the Interamerican Institute for Cooperation on Agriculture (IICA), and Dr. Ilse Brunner, Centre for Regional Cooperation on Adult Education in Latin America and the Caribbean (CREFAL). Two of TIAS's very own advisory board members Dr. Marcela Brugnach, University of Twente in the Netherlands, and Dr. Matt Hare, PINCC-UNAM in Mexico, opened the session, explaining the need for TIAS-LA in the context of their current research work.

Marcela and Matt, along with their Mexican colleague, Dr. Ana Peña del Valle Isla (PINCC-UNAM), will be leading the volunteer team to develop TIAS-LA and implement its initial activities, which will include identifying and translating key IA documents from Europe and Latin America into English, Spanish and/or Portuguese; hosting webinars; interviewing key regional specialists working in IA; developing a session on IA at the 5th conference of ARNA (Action Research Network of the Americas), in Colombia, 2017, and supporting

the forthcoming TIAS-UNAM 2nd "Winter Field Academy on Adaptation to Climate Change at the Community Level".



Photo: Supporting the final unit of a new diploma programme, "Strengthening Capacities for Adaptation to Climate Change at the Community Level" sponsored by UNAM and the Mexican Environment Ministry: Dr Carlos Rungruansakorn (Environment Ministry of Chile), Dr Ana Luisa Toscano (Environment Ministry of Mexico), Dr Byron Miranda (Interamerican Institute for Cooperation on Agriculture - IICA), Dr Marcela Brugnach, (University of Twente, NL), Dr. Matt Hare and Dr. Ana Peña del Valle Isla (PINCC-UNAM).



Photo: Members of the Mexican National Network on Climate Change (CLIMARED) attending the Congress

We have two requests to IA members:

If you or your colleagues are interested in learning more about the Latin American experience of IA, then please feel free to join us at the TIAS-LA website (http://www.tias-web.info/tias-latin-america/ which will open later in January 2017);

Please send us (anepvalle@gmail.com) your recommend-ations for key IA texts (in English, Spanish or Portuguese) for translation.

As some of you may know, TIAS is also the Spanish word for "aunties" in English, so maybe that's what TIAS-LA will become in the future: a group of people to talk with where you will feel welcomed and able to exchange experiences, as well as obtaining some well-intended guidance, and (quite possibly) a great cup of *café* y *galletas* ...

In the meantime, we would like to thank the TIAS board for all its support and critical guidance in the setting up of the regional chapter, and to wish all the TIAS members a very happy new year.

Matt, Marcela and Ana

TIAS establishes Learning Community

In September 2016, TIAS organized three sessions on learning at the International Sustainability Transitions Conference in Wuppertal. During these sessions we explored the possibility of setting up a thematic network. We received many expressions of interest and decided to establish a Learning Community. Through this community we want to enhance the learning capacity of those who examine or seek to stimulate or organize learning processes. In doing so, we aim to bring together people working on learning in transitions and those working on social learning in natural resources management. For time being, we do this through webinars, conference sessions and a special issue. Learning is very relevant to Integrated Assessment and since we are all members of TIAS, we decided to use TIAS as our platform. Several TIAS members already joined this community. If you would also like to join our mailing list or if you have ideas for further cooperation in the form of joint webinars, conference sessions or dedicated workshops, contact us: learningcommunity@tias-web.info.

Learning community coordinating team: Johannes Halbe, Claudia Pahl-Wostl, Geeske Scholz and Joanne Vinke-de Kruijf (contact person), Institute of Environmental Systems Research, University of Osnabrück. More information: http://www.tias-web.info/tias-activities/learning-community/

Webinar: "Conceptualization and measurement of learning"

On the 16th of November 2016, the Learning Community organized its first webinar. The webinar focused on how learning is conceptualized and measured differently by people in different contexts. Presentations were provided on community-based social learning interventions by Romina Rodela and on learning in sustainability transitions by PJ Beers. These presentations were followed by two shorter presentations by Geeske Scholz and Johannes Hlabe highlighting the findings of two reviews undertaken at the Osnabrück University. The presentations evoked lively discussions on dynamics and feedback loops, learning intensities, connecting learning at different levels and the role of a researcher. The webinar reiterated the need for interdisciplinary exchange and transparency in doing research.

A report synthesizing the webinar results is available from the TIAS website. This webinar is the first in a series of webinars on this theme. The next one is planned for March 2017. In cooperation with other members of the Learning Community we are currently establashing the scope of this upcoming webinar which will be announced several weeks in advance of the event. More information:

http://www.tias-web.info/tias-activities/webinars/

Regional chapters

In the past year, the executive board of TIAS has looked for opportunities to establish new working groups and regional chapters. We hope and expect that these groups will promote direct interaction and cooperation across TIAS members. Together with Matt Hare and Marcela Brugnach we drafted guidelines for regional chapters. These guidelines are now about to be signed by our president Klaus Jacob and Matt Hare, who has agreed to become the regional chair of the newly established TIAS Latin America chapter (see p. 2). In addition, we discussing with Tony Jakeman of Australia National University (member of the advisory board) the potential establishment of a regional chapter for Australasia in the new year.

The executive board welcomes initiatives to establish new regional chapters. A regional chapter can bring together like-

-minded people in a certain region and promote the application and advancement of Integrated Assessment in that region. Chapters can, for example, organize workshops and meetings so that TIAS members can meet face-to-face or develop region-specific promotion materials. A regional chapter is headed by a regional chair, who is appointed by and reports to the executive board. Chapters are provided a dedicated page on the TIAS website. They have no legal status. For more information, please consult the TIAS secretariat.

Our newest member

Lara Lundsgaard-Hansen is a PhD candidate at the Centre for Development and Environment, Institute of Geography, University of Bern, Switzerland. For her research she is based in Myanmar. She is particularly interested in the just, thriving but also sustainable development of developing countries. In her PhD research, she focuses on land governance in rural areas of Southern Myanmar, a place where strong regional, national and international claims on land occur, thereby challenging the wellbeing of local communities. Through her transdisciplinary approach, she will identify and analyse the networks of actors, flows, and institutions behind the land use changes, including their underlying agencies, and aims at building up a platform for collective (social) learning within the networks for a sustainable land governance transformation. Her PhD is part of a broader project on telecoupled landscapes (www.telecoupling.unibe.ch).

Letter from the President

Dear TIAS members,

Turbulent times for Sustainability: After the euphoria following the adoption of the Paris agreement and the Agenda 2030 in 2015, we are witnessing - with Brexit, the Trump election, authoritarian regimes in many countries, and in Europe - what is referred to as post-factual politics. That is a double challenge for a community that is committed to sustainable development and evidence-based decision making: The agenda is clearly against sustainability. Nationalism, protectionism, climate change denial, dividing people according to ethnic and cultural criteria are clearly violating the fundamental principles of sustainable development. Such policies will sooner or later erode the natural and social capital needed by future generations.

As a society that is committed to producing the evidence base for societal decision making for a sustainable development, we are well aware of the urgent need to take action towards sustainability. I do not see an alternative to continuing our work in demonstrating the need for action and the potential long term benefits of policies for sustainability.

We do have many opportunities to contribute that will evolve in the year ahead: UNEP is initiating the next steps for the Global Environmental Outlook 6; the process for the implementation of the Paris Agreement is under way and countries are developing evidence-based strategies for climate action; governments, civil society and increasingly businesses around the globe are taking the notion of transforming our world in earnest and therefore demand knowledge on options for action in an effort to reconfigure the basic systems of their economies and societies.

I am confident that the catalysts that will bring about greater progress towards sustainability are in place. Evidence from integrated assessments is of vital importance for this. Let's go on in sharing our experiences and contributing to these dynamics of change, particularly in these difficult times.

I wish our members a relaxing holiday and a very happy 2017! *Klaus Jacob*

IA News

Policymakers, experts, manufacturers, and farmers gathered at the 2nd World Irrigation Forum in Chiang Mai, Thailand in November to address various multidisciplinary perspectives on irrigation, drainage and related sectors. At the forum, UNU-FLORES Director, Reza Ardakanian, identified three plausible solution pathways in managing resources sustainably. Three challenges identified include: 1) managing increasing resource demands from various sectors, 2) minimising the negative environmental effects of irrigation and maximising the provision of ecosystem services, and 3) understanding the role of stakeholders in governing irrigation and drainage matters. Thinking within the water-energy-ecosystem-food nexus framework with water resources at its heart is essential for developing solutions. More information:

https://flores.unu.edu/from-farmer-to-minister-sustainability-ne eds-an-integrated-holistic-approach/

Events

17-19 May 2017, **The Dresden Nexus Conference**, Dresden, Germany. The Dresden Nexus Conference is a platform aimed at using the Nexus approach to advance the sustainable development agenda, in particular the SDGs. . Early bird registration until 28 Feb. 2017; registration closes 17 April 2017. More information:

http://www.dresden-nexus-conference.org/2017/

9-13 April 2017, US-IALE 2017, Annual Meeting - People, Places, Patterns: Linking Landscape Heterogeneity and Socio-Environmental Systems, Baltimore, United States. The meeting will include a session on Integrated Modeling for the Analysis of Socio-Ecological Systems and will address the challenges and the possibilities of integrating System Dynamics and agent-based modeling approaches with Cellular Automata. The underlying concepts of model integration and the development of best practices of model integration for land systems science will be discussed. Early registration until 24 Feb. 2017. More Information: http://usiale.org/baltimore2017/

2-3 May 2017, UNECE Task Force on Integrated Assessment Modelling, Paris, France. The task force will focus on the assessment of hemispheric abatement strategies. More information: http://www.unece.org/env/lrtap/TaskForce/tfiam/welcome.html

18-20 July 2017, Water Resources Management 2017: 9th International Conference on Sustainable Water Resources Management. Prague, Czech Republic. Theme: e recent technological and scientific developments, associated with the management of surface and sub-surface water resources. Abstracts invited 'as soon as possible'. More information: http://www.wessex.ac.uk/conferences/2017/water-resources-m anagement-2017

20-21 July 2017, **GIS Congress-2017**, Munich, Germany. Theme: **Innovation of Spatial Data Infrastructure for Sustainable Development.** Early Bird registration until 14 March 2017. More information:

http://gis-remotesensing.conferenceseries.com/europe/

3-8 December 2017. **22nd International Congress on Modelling and Simulation (MODSIM2017),** Tasmania, Australia. **Theme: Managing cumulative risks through model-based processes.** Expression of interest (pre-abstract) until 28 April 2017. More information: http://www.mssanz.org.au/modsim2017/

Job Openings

Postdoctoral positions (5 years duration) at the Sustainability Research Institute, University of Leeds to work on a newly awarded project, Yorkshire Integrated Catchment Solutions Programme, with a focus on assessing the socio-economic benefits of catchment solutions. Application deadline 8 Jan. 2017. More information:

https://jobs.leeds.ac.uk/Vacancy.aspx?id=6839&forced=2

A number of positions at various German and Dutch research institutes and SMEs who are partners in the newly funded, MEDUWA-Vecht project (EU INTERREG VA): MEDicines Unwanted in Water, will be advertised in Jan-Feb. 2017. These positions will be highly diverse ranging from ecological modelling and risk management to developing technologies for point-source reduction of pharmaceuticals. Job openings will be linked via the TIAS homepage until the MEDUWA project website is launched. Most positions will require the Dutch or German language. For more information on MEDUWA-Vecht: http://www.groenegezondheid.nl/link.php?title=meduwa

Education

Applications are now being accepted for the Master of Advanced Studies (MAS) in Sustainable Water Resources, a one-year postgraduate program at the Swiss Federal Institute of Technology (ETH). The program begins in September 2017 and is taught in English. The MAS is designed to advance the education of water professionals on the importance of water availability and water scarcity in a changing world, at the same time preparing them to face the challenges of the future. The program is interdisciplinary and is aimed at promoting international collaboration with Switzerland. For further information, visit the MAS website (www.mas-swr.ethz.ch) or contact: info-mas@ifu.baug.ethz.ch.

Publications

Reis, Stefan; Bekunda, Mateete; et al. 2016. Synthesis and review: Tackling the nitrogen management challenge: from global to local scales. Environmental Research Letters, Vol. 11, No. 12. In this article, the authors address the environ-mental challenges resulting from anthropogenic impacts on the nitrogen cycle in the context of food production and their impacts on ecosystem and human health. Moreover, it contains management options for regions with too much or too little nitrogen and further underlines scientifically the claims of the 'Kampala Statement'. It shows that reducing pollution and increasing nitrogen available in the food system simultaneously offers win-win situations for environment, health and food security in both developing and developed countries. The article is available at:

http://iopscience.iop.org/article/10.1088/1748-9326/11/12/120 205

TIAS report series launched

The first in a series of reports to be published by TIAS is now available online:

C. van, J. Bakkes and L. Hordijk. 2016. **Building Bridges** from the Present to Desired Futures: Evaluating Approaches for Visioning and Backcasting. Based on a workshop held at Central European University, Budapest, Hungary, 21-22 March, 2011. TIAS Report Series, Issue No. 2016/1. Osnabrück, Germany: The Integrated Assessment Society. Available at: www.tias-web.info/tias-report-series/

Publications cont'd.

Maione, Michaela; Fowler, David; et al. 2016. Air quality and climate change: Designing new win-win policies for Europe. Environmental Science & Policy, p. 48–57. The article addresses the interlinkages between air pollution and climate change. These two environmental challenges are still viewed as separate issues, which are addressed by different policy and science communities. The many mitigation options offer the possibility to address both issues at the same time. However, in some cases a beneficial option for one aspect may worsen the situation regarding the other. Therefore, the article points out the need for an integrated view in science and policy making that address both air quality and climate change issues at the same time. The article is available at:

http://www.sciencedirect.com/science/article/pii/S1462901116 300624

University of Cambridge Institute for Sustainability Leadership (CISL) 2016. Nexus2020: The most important research questions for business sustainability. Cambridge, UK. CISL has published a report of the Nexus2020 network, which is bringing together business and researchers on questions related to sustainable development. The report outlines the research priorities of the network and explains, which partnerships between academia and business are important for the long-term success of companies. It calls for researchers and business to jointly develop projects which are addressing urgent nexus issues. The report also outlines how research funding agencies may profit from this co-production approach. The full report is available at:

 $\label{limit} http://www.cisl.cam.ac.uk/publications/publication-pdfs/Nexus2020$

Martin Kowarsch, Jennifer Garard, Pauline Riousset, Dominic Lenzi, Marcel J. Dorsch, Brigitte Knopf, Jan-Albrecht Harrs, and Ottmar Edenhofer: Scientific assessments to facilitate deliberative policy learning. Palgrave Communications 2: 16092. doi: 10.1057/palcomms. 2016.92. Putting the recently adopted global Sustainable Development Goals or the Paris Agreement on international climate policy into action will require careful policy choices. Appropriately informing decision-makers about longer-term, wicked policy issues remains a considerable challenge for the scientific community. Typically, these vital policy issues are highly uncertain, valueladen and disputed, and affect multiple temporal and spatial scales, governance levels, policy fields, and socioeconomic contexts simultaneously. In light of this, science-policy interfaces should help facilitate learning processes and open deliberation among all actors involved about potentially acceptable policy pathways. We argue that integrated, multistakeholder, scientific assessment processes—particularly the collaborative assessments of policy alternatives and their various implications—offer potential advantages in this regard, compared with alternatives for bridging scientific expertise and public policy. This article is part of a collection on scientific advice to governments. The article is available at: http://www.palgrave-journals.com/articles/palcomms201692

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