

# TIAS Quarterly

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In This Issue:

# 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 and use 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**

Courtesy of D. Günther

# The Benefits derived from IA: Communicating a Process to Encourage Participation

by Katie Lund M.S., Graham Environmental Sustainability Institute

#### **Project Background**

Like other organizations, the Graham Environmental Sustainability Institute at the University of Michigan (http://graham.umich.edu) uses Integrated Assessment to bring together natural, social, and economic information to analyze policy options for decision makers. To people not familiar with the process, IA can appear to be overly complex with vague outcomes. However, because sustainability problems often lack a clear cause or solution, the IA process offers an innovative way to build consensus and guide decisions for these pressing and unique challenges. To better communicate the value of the IA process, the

To better communicate the value of the IA process, the Graham Institute and Michigan Sea Grant (a cooperative programme at the University of Michigan that addresses the aquatic ecosystem challenges of the Great Lakes through research, education and outreach -

http://www.miseagrant.umich.edu), conducted interviews with previous IA participants with diverse roles - from state and federal agency staff to scientists, consultants, and community members. Participants were asked about their perspectives on four IAs, which represent different issues, scales and levels of stakeholder involvement:

- Northeast Michigan Integrated Assessment Connecting Great Lakes Coastal Access, Tourism, and Economic Development;
- Rein in the Runoff Tracing the Path and Influence of Water in Spring Lake;

- Fish Consumption Advisories in the Detroit River –
   What's Safe to Eat and Why; and
- Hypoxia in the Northern Gulf of Mexico Documenting the Dead Zone.

#### Results

Interview results were synthesized across the four projects to demonstrate common themes, benefits, and outcomes. The accumulated results illustrate the strength of Integrated Assessment by showing that participants from very different projects articulated similar messages. Results also show that IAs generate both tangible and intangible benefits.

One of the most important tangible outcomes of an IA is the actual report that evaluates policy options. The IA

#### In Memorium: Stephen Schneider

TIAS joins the international community in honouring the memory of Stephen Schneider, who passed away on 19 July 2010. Personally and professionally, he encouraged the integrated and policy oriented approaches to understanding the world around us that are at the heart of Integrated Assessment. Furthermore, he showed great kindness, respect and support to those of us who have followed him in working to build interdisciplinary careers in what oftentimes remains a very disciplinary and fragmented world of research and policy.

report provides one accessible source of accurate, agreedupon information developed from multiple perspectives and is a foundation to maintain credibility on an issue.

Even if actions are not immediately implemented, the accumulation of reliable information remains a valuable resource, particularly for addressing long-term issues. Through the reporting process, other tangible benefits result, including datasets, models, or other technical information.

Often less recognized are the intangible benefits that result from IA including new partnerships, modified perspectives, and a change in process. IA's catalyze partnerships by bringing people together to tackle a challenging issue from multiple perspectives. Groups realize they have similar goals and see the benefit of working together. Many of these working relationships continue long after the process is over because IAs build communication, cooperation, trust, and public participation. IAs can also create a shift from local to regional perspectives – allowing people to see a greater connectivity of issues and use a broader lens to view topics. This change in perspectives creates policy modifications and new strategic planning. As a result, lessons learned through an IA affect organizational decision making.

The products, partnerships, and policy modifications generated through an IA motivate participants to continue their efforts beyond a particular IA project. With new longterm collaborative focus and support, IA's often leverage spinoff opportunities and additional grant funding. Thus, while participants get involved in an IA without understanding the length of the process and their commitment to it, they stay involved because of these tangible and intangible benefits.

#### Conclusion

The interviews conducted with stakeholders capture diverse perspectives about the Integrated Assessment process and deliverables and help those involved in IA communicate common themes, benefits, and outcomes. From the responses, it was clear that IAs are generally beneficial in that they:

- are effective at multiple scales, from national to local;
- unexpectedly leverage new resources or result in successful spinoff projects;
- are flexible and often evolve based on participant interests: and
- build coalitions and alliances that would otherwise not exist - and for contentious issues they provide neutral, common ground for polarized parties to meet.

Since Integrated Assessment can sometimes be viewed as a complex process, this study has helped to communicate simpler and more common, real-world IA benefits so that future participants will better understand and be more willing to invest time, energy, and resources into an IA of their own as a means of addressing often complex environmental/sustainability issues. the complete findings are being prepared for publication, and will be announced to the TIAS network.

Contact:

Katie Lund; Integrated Assessment Specialist Graham Environmental Sustainability Institute klund@umich.edu +1 (734) 763-6131

#### IA at the University of Michigan **Graham Environmental Sustainability Institute**

by John Callewaert, PhD, Integrated Assessment Program Director, Graham Environmental Sustainability Institute

The Graham Institute at the University of Michigan (U-M) is a partnership of nine university units (Natural Resources & Environment; Literature, Science, & the Arts; Business; Public Health; Engineering; Architecture & Urban Planning; Public Policy; Law; and the Office of Vice President for Research). We see ourselves as a boundary organization leveraging cross-disciplinary faculty research and community stakeholder input to address complex sustainability issues. In 2009, the Graham Institute began using Integrated Assessment as the cornerstone of our research activity. We use IA to structure dialog among researchers, policy makers, and other stakeholders to establish key policy questions around which each assessment is developed. We then support efforts to gather and assess natural, social, and technological information to help policy makers address those questions. We plan to make available at least \$2.5 million to initiate and support multiple IA projects on local to global scales over the next several years, http://graham.umich.edu/ia/. An overview of our current and developing projects is provided below.

#### **Current Projects**

Campus Sustainability: The University of Michigan's (U-M) Graham Environ-mental Sustainability Institute and the Office of Campus Sustainability are partnering to lead an IA directed at sustainability aspects of the U-M campus operations. The purpose of this IA is to collaboratively develop practicable ideas to guide campus sustainability efforts that will help solidify U-M as a global leader. This project involves students, faculty, and staff throughout the U-M community to establish broad goals and specific targets and frame-works for campus sustainability efforts. Project webpage:

http://graham.umich.edu/ia/campus-ia.php



Global Health Equity and Sustainability: In partnership with the U-M Center for Global Health (CGH) the Graham Institute will support 5 pilot studies by U-M faculty which could lead to an IA of a major issue regard-ing climate and/or water and their impact on health in an international setting where health inequities exist. The Graham Institute/CGH partnership is focused on fostering proposals which can build off of the CGH's established global health equity platforms and frameworks for collaborative projects in Ecuador, Mexico, Chile, North Africa, Sub-Saharan Africa, the Middle East, China and many other locations in Europe, Latin America, Asia, and the far

#### **Projects in Development**

Great Lakes Cities Climate Adaptation: Working in coordination with the recently funded Great Lakes Regional Integrated Sciences and Assessment project, the Graham Institute is in discussion with several U-M faculty research teams to develop an IA focused on climate change adaption in the Great Lakes Region (both Canada and the US) that would focus specifically on adaptation strategies for cities. A stakeholder meeting is being planned for fall 2010 to further define the objectives and work plan for this

Transportation/Sustainable Communities: In partnership with the U-M Transportation Research Institute (http://www.umtri.umich.edu/news.php), the Graham Institute is working to develop an IA focused on national transportation policy - specifically the Partnership for Sustainable Communities jointly sponsored by the White House Office of Urban Affairs, US Environmental Protection Agency, US Department of Transportation, and US Department of Housing and Urban Development. Potential areas of focus for the IA include framing desired goals and policies as well as performance measures for the Livability Principles of the Sustainable Communities Partnership.

Detroit: With nearly 30% urban land within the City designated vacant and an infrastructure built to support a population of 2 million in the 1950s compared to less than 900,000 today, numerous sustainable redevelopment ideas have been proposed for Detroit. The Graham Institute is in discussion with City representatives and non-governmental organizations regarding ways that an IA focused on Detroit could support a variety of policy objectives such as economic development, infrastructure improvement, transportation and accessibility options, open space, environmental justice, urban agriculture, recycling and waste systems, and neighborhood dynamics. An initial project may involve the creation of a sustainability/environmental indicators data suite for Detroit which could to contribute to the efforts of numerous organizations in the region.

Contact:

Dr. John Callewaert, Integrated Assessment Program Director Graham Environmental Sustainability Institute Email: jcallew[at]umich.edu +1 734 615-3752

# **TIAS Highlights**

#### TIAS Groups at LinkedIn and ResearchGate

As announced in the Sept/Oct. 2009 issues of TIAS Quarterly the association started a group in the social network LinkedIn http://www.linkedin.com/groups? mostPopular=&gid=2416545) in order to provide a platform for discussion and information on various IA themes. TIAS intens to extent its service provided through this social network group (e.g. by establishing a news feed). We encourage interestesd TIAS members to join the TIAS Group at LinkedIn. For more information: Dirk Guenther, di.guenther@googlemail.com

#### **TIAS Backcasting Study**

A TIAS steering group is creating a guidance document to support future efforts to undertake backcasting studies. This will be supplemented and supported by a webinar series and journal article in 2011. For more information: contact Caroline van Bers, cvbers@usf.uos.de

#### News

#### **Europe's Environment Assessment of Assessments**

by David Stanners, Head of International Cooperation European Environment Agency

Do we have the ability to keep Europe's Environment under continuous review? Instead of preparing a 5th pan-European environmental assessment to follow up on that published for the last "Environment for Europe" environment ministerial conference held in Belgrade in 2007, EEA is leading a process to assess our capacities to assess. This "Assessment of Assessments" approach was born in the complex world of assessing the world's marine environments (see: <a href="http://www.unga-regular-process.org/">http://www.unga-regular-process.org/</a>) with diverse, uneven information coverage and multiple institutional frameworks. These are mirrored across pan-Europe and therefore it is unsurprising that the need for an "AoA" has been recognised in this area also. The aim is to develop a long-term sustainable Regular Process assessing these environments. But why is this necessary? Can we not just continue as before? Overall, there are at least three reasons why "business as usual" is no longer feasible for preparing pan-European state of environment reports:

- Efficiency each major SOER exercise is very costly in time and resources compared with the long-term practical effect and use of the results. There is an increased need to use the information/knowledge generated in these exercises for multiple purposes, for example by stream-lining efforts and initiatives to be compliant with the concept of a Shared Environment Information System;
- Geo-political context the evolving policy frameworks, especially related to EU enlargement and external EU policy are requiring more flexible and targeted assessment outputs. Furthermore, the evolving links and influence Europe has on global and non-European country and regional initiatives demands a more consistent joined up approach.
- Information and communication technology progress - there is an increasing need to access information in an easy and timely fashion. This requires regular or continuous updates in order to keep the assessments up to date and relevant to support decision making. On the supply side, there are increasing sources of readily available environmental information which need to be integrated into the SOER process.

By producing, through the EE-AoA exercise, the first comprehensive review of environmental assessments in Europe, it should be possible to streamline existing and new assessment initiatives and processes resulting in:

- 1. A more consolidated and coherent basis for the work of the different actors in the region, policy and decision makers, including in the various thematic
- 2. Better knowledge and sharing of available information for multiple purposes;
- 3. Better use and linkage of local, national and regional information and knowledge to the pan-European and global levels ensuring better comparison, benchmarking and aggregation;
- 4. Targeted capacity building for SOER and Integrated assessment;
- 5. A gradual reduction in the reporting burden at national level and building SEIS in the region;

6. Better use of available resources at various levels by identifying the overlaps, the existing gaps as well as the emerging issues to be further addressed.

This current exercise will have initially two outputs: (i) a report for the pan-European environment ministers' conference to be held in Astana, Kazakhstan, 21-23 September 2011; and (ii) a process to be continued to support ongoing State of Environment Reporting across Europe.

With EEA's next 5-year State and Outlook report being published on 30 November 2010, this will help chart EEA's own SOER work in the future.

Further information about the EE-AoA can be found at: http://aoa.ew.eea.europa.eu/

#### International Project Office for the Earth System Governance Project to be hosted by Lund University

The Earth System Governance Project is pleased to announce that starting January 2011, its International Project Office will be hosted by Lund University, Sweden. Lund University is the highest ranked comprehensive research university in Scandinavia with a strong background in transdisciplinary environmental and global change research. The Lund University Centre for Sustainability Studies (LUCSUS) and the Faculty of Social Sciences, represented by its Department of Political Science, will lend vital support to the International Project Office and facilitate university-wide research collaboration. The comprehensive and generous hosting arrangement will provide the Earth System Governance Project with an effective and stable International Project Office in an inspiring, dynamic and high-quality academic environment. See also: http://www.earthsystem-governance.org /news/2010-09-03-international-project-office-be-hostedlund-university.

#### UEA Norwich joins Global Alliance of Research Centres

The University of East Anglia (UEA) in Norwich, United Kingdom, has joined the global alliance of Earth System Governance Research Centres. The University of East Anglia is an acknowledged centre of excellence in the study of the inter-linkages between natural and human systems. UEA has been a passionate advocate and exponent of policy-relevant interdisciplinarity since its foundation in 1963. UEA is also distinctive in terms of the diversity of methodologies and theories used and developed by its researchers and teachers. Consequently, it is actively involved in understanding processes across all five analytical problems identified in the Earth System Governance science plan. With the new centre at UEA, the global alliance of research centres brings together nine leading institutes. Strong networks are also emerging in China, and discussions with potential partners in Africa, Central and Eastern Europe, India, and Latin America are underway. See also:

http://www.earthsystemgovernance.org/news/2010-07-27uea-norwich-joins-global-alliance-research-centres

#### Sharing practices on biodiversity and livelihood impacts of climate change

Natureandpoverty.net invites people active in the conservation and development community to share resources & collaborate online at its interactive platform.

One of the current focus themes is biodiversity and livelihood impacts of climate change. Natureandpoverty.net invites people to become involved and share your experiences.

Natureandpoverty.net provides a platform for practitioners working on ecosystem management and poverty alleviation. Practitioners can connect with people and organizations, share experiences and find tools and resources, gain easy and timely access to experts and benefit from field-based knowledge and insights.

Ownership, engagement and direct interaction among users are key parameters of the Natureandpoverty.net platform. From that perspective the platform has opted for an open and bottom-up approach aimed at establishing an interactive community of practitioners. For further information please visit: http://www.natureandpoverty.net

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#### **New Journal: Nature Climate Change**

In April 2011, Nature Climate Change will be launched as a monthly journal providing in-depth coverage of the impacts and wider implications of the Earth's changing cli-

A multidisciplinary journal, Nature Climate Change will publish high-quality research across both the natural and social sciences. The journal's mission will be to unify the body of research on the understanding and impacts of climate change as well as to place it in a wider social and political context.

For further information visit: www.nature.com/natureclimatechange

# **Events**

November 10-12, 2010 Scaling and Governance Conference 2010, "Towards a New Knowledge for Scale Sensitive Governance of Complex Systems", Wageningen, Netherlands

For more information please visit:

http://www.scalinggovernance.wur.nl/UK/Conference

#### December 6-8, 2010 International Conference on "Transboundary Aquifers: Challenges and New Directions". UNESCO Headquarters Paris, France.

The aim of the Conference is to bring together leading world experts in the fields of law and water sciences to discuss approaches for the sound management of transboundary aguifers, in both developed and developing countries. In particular, the conference will stress the accent on how principles of international law and good governance can contribute to the sustainable management of transboundary groundwater resources.

For more information please visit:

www.isarm.net/conference2010

#### January 17-20, 2011 Climate & River Basin Management Symposium 2011. Oulu, Finland

The symposium aims to be a forum in the context of which between policy-makers, stakeholders, and scientists will take place, on issues associated with climate change and river basin management. In particular, it will look at the implementation of EU water policies.

Moreover, a particular emphasis is on the impacts of climate change within the context of other multiple stressors such as agriculture and eutrophication.

For more information please visit:

http://www.waterpraxis.net/de/climate-rivers-symposium-2011.html

#### January 27-29, 2011 Communities, Commodities, and Carbon: Innovations in Tropical Forest Management,

Annual conference of the International Society of Tropical Foresters, Yale Student Chapter

The conference will bring together practitioners and researchers from government, academia, and environmental and development organizations to explore innovations in tropical forest conservation and management.

The discussions shall be driven by questions such as:

- What are new ideas in community-based forestry? What is the role of communities in climate change mitigation, and what will the effect of carbon projects on rural and peri-urban communities be?
- How can engagement with the supply chains of agricultural commodities (e.g. with roundtables) reduce deforestation? Where have these approaches shown tangible results, and where have they failed? What novel strategies are in the pipeline?
- What are the major obstacles in assuring REDD+ project permanence? How are global drivers of deforestation (e.g. timber markets) contributing to international leakage? What are the latest innovations in remote-sensing technologies, and what new methods are being devised for more reliable groundtruthing?

Please send abstracts by November 5, 2010 to: yaleistf @gmail.com Invited speakers will have the option of submitting conference proceedings for publication in the Journal of Sustainable Forestry.

For more information please visit http://www.yale.edu/istf

#### March 22-25, 2011. SCENES Final Conference and workshop on future waters for Europe.

This Conference will elucidate potential visions of Europe's water resources, in terms of quantity and quality, water use and availability, and adoptive strategies and implementation plans how reach sufficient water supply in next decades in Europe. It is directed to policy makers working at international and national level, water managers, NGOs, and scientific community.

more Information: http://www.environment.fi/ default.asp?contentid=356221&lan=en&clan=en

November 2-4, 2012 6th International Symposium on Non-CO2 Greenhouse Gas: Science, Policy and Integration. Amsterdam, Netherlands. The Netherlands Association of Environmental Professionals

(VVM) invite submission of papers with respect to causes, effects and solutions of the environmental problems associated with non-CO2 greenhouse gases. Causes, effects and solutions are reflected in the three main themes of the conference. Participants interested in presenting a paper or poster are invited to e-mail an abstract in English with a maximum of 250 words by February 1<sup>s</sup>, 2011 to:

Carolien Kroeze, ncgg6@ncgg.info

For more information please visit:

http://www.ncgg.info

#### December 12-16, 2011. MODSIM 2011: "Sustaining Future: understanding and living uncertainty", Perth, Australia.

is now looking to potential Session Organisers to provide Session Descriptions that can be mount on the web and start the process of encouraging submissions. The Congress is divided into several streams, each of which have Coordinators from the Program Committee.

Session proposals can be submitted by filling in the form at the link below:

http://mssanz.wufoo.com/forms/modsim-2011-sessionproposal/

For more information please visit:

http://mssanz.org.au/modsim2011

# Courses

The Karlstad University, Sweden invites participants for its new international Master Course on INTERNATION-AL FLOOD RISK MANAGEMENT, 15 ECTS credits, February-May 2011

For more information see: www.kau.se/ccs

# **New Publications**

T. Le Quesne, E. Kendy, and D. Weston. 2010: Taking stock of government policies to protect and restore environmental flows. Published by WWF and The Nature Conservancy.

Available at: http://www.eflownet.org/

J. Mysiak, H. Henrikson, C. Sullivan, J. Bromley and C. Pahl-Wostl (eds). 2010: The Adaptive Water Resource Management Handbook. London: Earthscan.

Further information at:

http://www.earthscan.co.uk/?tabid=102395

Vinke-de Kruijf, J., Hommes, S., and Bouma, G. 2010: Stakeholder participation in the distribution of freshwater in the Netherlands. Irrigation and Drainage Systems, Online first.

Further information at:

http://dx.doi.org/10.1007/s10795-010-9097-3

W. Walker, V. Marchau, D. Swanson. 2010: Special section "Addressing deep uncertainties using adaptive policies" in Technological Forecasting & Social Change, Vol. 77, No. 6, Special Section 2

Further information at:

http://www.sciencedirect.com/science/journal/00401625

R. Griffin (ed.). 2010: Water Policy in Texas. Responding to the Rise of Scarcity. London: Earthscan Further information at:

http://www.earthscan.co.uk/?tabid=102395

A. Earle, A. Jägerskog and J. Öjendal (ed.). 2010: Transboundary Water Management. Principles and Practice. London. Earthscan

Further information at:

http://www.earthscan.co.uk/?tabid=102373

A. Earle, A. Jägerskog and J. Öjendal (ed.). 2010: Transboundary Water Management. Principles and Practice. London. Earthscan

Further information at:

http://www.earthscan.co.uk/?tabid=102373

# Job openings

#### Post-Doctoral Researcher in Water Security, Oxford University

The School of Geography and Environment wishes to appoint a post-doctoral researcher to work within the Oxford Water Futures Programme in the substantive area of water security, engaging across the disciplinary spectrum of natural and social sciences. The successful applicant will work closely with Prof. David Grey and the wider water research group in Oxford.

Details: http://ocwr.ouce.ox.ac.uk/index.php

#### Senior Associate/ General Manager, Seeconsult GmbH

Seeconsult (Society-Economy-Ecology-Consulting) carries out participative planning for the environment. Based in Germany, this small, interdisciplinary company is growing, and seeks a senior consultant/general manager to carry out project management, acquisition, training. workshop planning and mod-eration, research and other activities. Details: http://www.seeconsult.org/de

# **Call for Submissions**

TIAS Members are encouraged to submit feature articles and/or news items for future issues of TIAS Quarterly. Contact Caroline van Bers (cvbers[at]usf.uos.de) or Dirk Günther (di.guenther[at]googlemail.com)

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Associate editors: Caroline van Bers, Dirk Günther

Layout: Dirk Günther

Postal Address: **TIAS Secretariat** 

c/o Institute of Environmental Systems Research (USF)

Barbarastr 12

University of Osnabrück D-49069 Osnabrück

Germany

Phone: +49 (0)541 - 969 3349 E-Mail: info [at] tias-web.info Internet: http://www.tias-web.info/

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