ISSC – Belmont Forum

agenda setting workshop

SYNTHESIS REPORT AND RESOURCE DOCUMENT

HEIDE HACKMANN, BARRETT C. BROWN, ELEANOR HADLEY KERSHAW

ISSC
international social science council

BELMONT FORUM

BELMONT FORUM

ISSC
international social science council

ISSC – Belmont Forum

agenda setting workshop

SYNTHESIS REPORT AND RESOURCE DOCUMENT

HEIDE HACKMANN, BARRETT C. BROWN, ELEANOR HADLEY KERSHAW

01

INTERNATIONAL SOCIAL SCIENCE COUNCIL (ISSC)

The primary international body representing the social, economic and behavioural sciences at a global level.

THE BELMONT FORUM

A high-level body consisting of the main funders of global environmental change research.

THE BELMONT CHALLENGE

To deliver knowledge needed for action to avoid and adapt to deleterious environmental change including extreme hazardous events.

—

WORKSHOP OBJECTIVE

To increase the extent to which social scientists from all parts of the world are aware of the Belmont Forum and fully involved in shaping and contributing to its initiatives.

introduction

The last two years have seen increasingly sharp demand for the social sciences to contribute to understanding and responding to global environmental change (GEC). Over this time, a series of international initiatives have been launched to map GEC research challenges, establish the necessary organisational, governance and funding arrangements, and mobilise international scientific communities.

One such initiative is the Belmont Forum[1] (see sidebar), which has specifically identified social science contributions as essential to addressing GEC issues within the framework of the Belmont Challenge.[2,3] In January 2010, the Belmont Forum invited the ISSC to represent the international social science community as a member of the Forum and to organise an agenda setting workshop. This event took place on 8-9 June 2011 (see sidebar).

Apart from the Belmont Forum, other international initiatives include: the Earth System science visioning process – led by the International Council for Science (ICSU) in collaboration with the ISSC – and resultant Grand Challenges framework;[4] and more recently, the proposal by the ICSU-ISSC-Belmont Forum Alliance[5] to establish a new 10-year Earth System Sustainability Initiative (ESSI). The Transition Team that has been asked to design the ESSI has a very important agenda setting task. Drawing on the Grand Challenges framework, as well as the Belmont Forum White Paper, they will identify the 10 or 20 most urgent integrated research priorities to be addressed at the international level. This report – representing the deliberations and results of the recent agenda setting workshop – will feed directly into this process, contributing to it a strengthened and markedly global social science voice.

The ISSC has been promoting international research on the social and human dimensions of GEC since the early 1990s. It has done so primarily through support and co-sponsorship[6] of the International Human Dimensions Programme on Global Environmental Change (IHDP). Towards the end of 2009 the ISSC Executive Committee agreed to develop – in partnership with the IHDP and other stakeholders – a focused strategy for mobilising a broader and stronger social science response to GEC. This includes the engagement of mainstream social sciences.

This decision built on the ISSC's active involvement in the Belmont Forum and the development of the Earth System Sustainability Initiative. One of the initial activities in the context of this strategy was a scientific symposium organised by the ISSC in collaboration with the International Council for Philosophy and Humanistic Studies (CIPSH), aimed at identifying key challenges of global environmental change for the social and human sciences. That event, "Changing Nature – Changing Sciences?" took place in December 2010 in Nagoya, Japan and produced recommendations (see Appendix I) that have informed the ISSC's subsequent work in this area.

Amongst the ISSC's other GEC activities,[7] in December 2010, the ISSC General Assembly also approved the decision that the next World Social Science Report (2013) would focus on climate change. The agenda setting workshop reported in the present document will provide invaluable input for this and for the ISSC's Climate Change Design Project, funded by the Swedish International Development Cooperation Agency (Sida). This project is a response to the increased demand for social sciences research on climate change, and the lack of adequate research funding at the global level to meet that demand. The project's main objective is to design a 10-year global climate change research funding and coordination initiative for social science research on climate change and broader GEC. This is to be done in collaboration with ISSC members, programmes, partners and the wider international social science research, funding, and policy communities.[8]

1 http://igfagcr.org/index.php/belmont-forum

2 http://igfagcr.org/index.php/challenge

3 The Belmont Forum (2011). The Belmont Challenge: A Global, Environmental Research Mission for Sustainability; p. 2. Available at http://igfagcr.org/images/documents/belmont_challenge_white_paper.pdf.

4 ICSU (2010). Earth System Science for Global Sustainability: The Grand Challenges. International Council for Science, Paris. Available at http://www.icsu.org/publications/reports-and-reviews/grand-challenges.

5 UNESCO, UNEP, UNU are now also members of the Alliance.

6 With co-sponsors the United Nations University (UNU) and the International Council for Science (ICSU).

7 For further information on the full range of ISSC GEC activities, please see: http://www.worldsocialscience.org.

8 For more information on the ISSC Climate Change Design Project, please see http://www.worldsocialscience.org/pdf/ISSC_Climate_Change_Design_Project.pdf.

Additional important contributions to the Belmont Forum, the ESSI and the ISSC Climate Change Design Project processes, as well as to the agenda setting workshop described here, are the following:

- The 2010 World Social Science Report: a global review of the state of social sciences;[1]
- The 2010 ISCU Belmont Panel Report: a review of the international research capacity/capability to respond to the Belmont Challenge;[2]
- The Report on the Survey of Social Scientists and Humanities Scholars on Engagement in Global Environmental Change Research undertaken by IHDP in collaboration with UNESCO and the ISSC;[3]
- A forthcoming white paper on the social dimensions of climate change, produced through the collaboration of 19 UN agencies (available November 2011);
- European Science Foundation (ESF) – Responses to Environmental and Societal Challenges for our Unstable Earth paper on Challenges of the Anthropocene: Contributions from Social Sciences and Humanities (forthcoming).

The ISSC Climate Change Design Project, which will run until June 2012, will now draw together the threads of all these initiatives and inputs, including the discussions of the agenda setting workshop, as synthesised here.

The ISSC-Belmont Forum agenda setting workshop, held on June 8-9, 2011, brought together an international and interdisciplinary group of over 60 social sciences scholars representing academia, non-governmental organisations, intergovernmental institutions, science policy makers and social science funding agencies from 25 countries.[4] To ensure broad and balanced disciplinary coverage, geographic reach, gender representation, and research interests, the ISSC invited key regional social science bodies to nominate social science scholars (including at least one early career social scientist) working both within and outside of the field of GEC. Participants were selected from amongst the nominations by the Workshop Organising Committee,[5] alongside additional representatives of the international social science community such as the IHDP.

The main purpose of the workshop was to:

- Increase the extent to which social scientists from all parts of the world are aware of the Belmont Forum and fully involved in shaping and contributing to its initiatives;
- Bring critical social science perspectives to bear on the Belmont Challenge;
- Strengthen an international network of social scientists focusing on research relevant to the Belmont Challenge;
- Learn from nationally funded programmes that support social science research for GEC;
- Disseminate information on the Belmont Forum and other international GEC initiatives, such as the ESSI and the ISSC Climate Change Design Project, to a broad selection of representatives of the social science community.

The workshop also served to:

- Inform design of the 10-year Earth System Sustainability Initiative (ESSI); and provide input for the ISSC Climate Change Design Project (see above).
- Form a basis for the ISSC, the IHDP, UNESCO and other partners to work together on:
  - ¬ Expanding the international social science GEC community;
  - ¬ Interacting with decision makers, as well as researchers from other fields and sectors;
  - ¬ Developing a consolidated, global social science knowledge agenda on GEC;
  - ¬ Ensuring that the social sciences co-design, develop and become involved in new initiatives such as the ESSI, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), [6] and the ISSC Climate Change Design Project.

The workshop participants were asked to critically reflect upon the Belmont Challenge. They were given the opportunity to inquire into what they believe are the most relevant, compelling, urgent, and useful research questions to be asked in relation to this Challenge, at global and regional scales. How do these questions differ in different regions of the world? Do the priority foci identified by the

---

1 ISSC (2010). World Social Science Report: Knowledge Divides. United Nations Educational, Scientific, and Cultural Organization, Paris. Available at http://www.worldsocialscience.org/?page_id=62.

2 ICSU (2010). Regional Environmental Change: Human Action and Adaptation. International Council for Science, Paris. Available at http://www.icsu.org/publications/reports-and-reviews/belmont-report.

3 IHDP (2011). Survey of Social Sciences Scholars on Engagement in Global Environmental Change Research. International Human Dimensions Programme on Global Environmental Change (IHDP). Available at http://www.ihdp.unu.edu/file/get/9091

4 See Appendix II for the list of workshop participants.

5 The Workshop Organising Committee comprised: Alberto Cimadamore, Latin American Council of Social Sciences (CLACSO); Anantha Duraiappah, International Human Dimensions Programme on Global Environmental Change (IHDP); Asunción Lera St Clair, ISSC Climate Change Design Project; Patrick Monfray, Belmont Forum: Agence Nationale de la Recherche, France (ANR); Paul Rouse, International Forum of Funding Agencies in the Social Sciences and Humanities (IFFA): Economic and Social Research Council (ESRC); Ebrima Sall, Council for the Development of Social Science Research in Africa (CODESRIA); Heide Hackmann and Eleanor Hadley Kershaw, ISSC.

6 See http://ipbes.net/.

Belmont Forum take precedence in social science work on global environmental change? Should they? What other key focal areas are being addressed or should be (e.g. food security, climate change, conflict, inequality)? What alternative framing of the Belmont Challenge could the social sciences deliver?

Participants were also asked to identify ways of mobilising and building capacity within the broader social science communities to increase the production of social science research relevant to the Belmont Challenge and GEC. They considered how to ensure that this research makes a difference, and how to better realise the integration of social and natural sciences within the field of GEC. Additionally, the workshop launched a mapping exercise to identify centres of excellence and the strengths and weaknesses of social science research on GEC in different regions of the world.

The workshop was generously funded by two members of the Belmont Forum - the Natural Environment Research Council (NERC), UK, and the Agence National de la Recherche (ANR), France, - as well as the ISSC member organisation, the Economic and Social Research Council (ESRC), UK.

This document summarises the discussions at this consultative event, as well as drawing on written submissions from participants received in advance of and subsequent to the workshop. It is not exhaustive and represents the different points of view raised by participants rather than an ISSC agenda or strategy position: no attempt has been made to fully reconcile conflicting views. This report is also intended as a resource document – providing input for a range of initiatives beyond the Belmont Forum, including the Climate Change Design Project, and the work of the Global Alliance Transition Team developing the ESSI. A first draft was produced by the writing team, circulated for comments from the workshop participants, and finalised on the basis of their input.[1]

> The workshop participants were asked to critically reflect upon the Belmont Challenge. They were given the opportunity to inquire into what they believe are the most relevant, compelling, urgent, and useful research questions to be asked in relation to this Challenge, at global and regional scales.

1 See Appendix III for the workshop programme and Appendix IV for links to all input presentations.


02

summary of workshop discussions

The workshop was split into two sessions. Relevant inputs were first presented, followed by participants considering the workshop themes in breakout groups.[1] Each breakout group reported back to the larger group, followed by an open round of discussions within the plenary.

The first session focused on identifying the most compelling, urgent, and useful social science research priorities in relation to GEC and the Belmont Challenge. The second session focused on the requirements for effective social science mobilisation and capacity development. This section of the report summarises these two rounds of discussions. Responses from participants have been thematically categorised and synthesised where relevant. For a full listing of the raw input to each of the questions asked please see Appendix V.

The scene for these discussions was set by keynote speaker, Adebayo Olukoshi, who stated that until recently, natural scientists (and too often social scientists themselves) have assumed that GEC is a domain of the natural sciences only. The role of the social sciences in relation to GEC research has been residual, supporting, or non-existent. The framing of GEC from solely natural science perspectives has now been challenged and we need to continue challenging the assumption that the social sciences should simply accompany or support research into problems that are framed and defined by other sciences. That is not to say that what has been defined by others is not legitimate. However, it primarily speaks to the preoccupations and language of its defining community.

Dr. Olukoshi noted that climate change – and broader GEC – is organic to the preoccupations of the social sciences; it is "the domain par excellence of our disciplines."[2] Social science questions on GEC should be recognised as having the same legitimacy as questions posed by other sciences. He contends that the acknowledgement of this common starting point provides a useful basis for multi-, inter- and transdisciplinary research, into which we should be able to enter on an equal basis as researchers, whatever our disciplinary or methodological backgrounds.

Many workshop participants acknowledged that an inter- and cross-disciplinary, as well as trans-disciplinary approach to GEC is paramount. Single disciplines, or even a collection of natural science disciplines, are unlikely to provide sufficient and adequate data to formulate effective responses to GEC. Ultimately, any GEC-related research should be grounded in an integrated approach that incorporates the most *relevant* epistemologies and methodologies from the social sciences, natural sciences, and humanities. This would facilitate a far more comprehensive understanding of each GEC issue – and the whole of which it is a part – than we have to date. It is from such a comprehensive understanding of the issue that decision makers have the strongest potential to engage in change initiatives that advance society toward global sustainability. These challenges require: "research that in its very design, execution, and application demands the joint efforts of natural and social sciences."[3]

Such an integrated approach would also include the knowledge and perspectives of the decision makers, policy makers, and others who will use or are related to the research, especially local communities impacted by it. This process, while requiring more upfront work, supports the outcomes to be as action-oriented, relevant, and primed for uptake by society as possible.

However, the participants pointed out two important subtleties regarding the co-design and co-production of knowledge with decision makers and users at various levels (from the local to the global). First, when it comes to engaging in "strategic science" – science that responds to urgent needs – it is vital that decision makers and users of the research are involved in the co-design and co-production, including helping to frame and define the key questions. Any big, important questions regarding GEC should be framed together between scientists, policy makers, and implementers. Yet scientists must also be allowed to "get the science right" such that the methodology cannot be faulted, so that there is no loss of credibility. Scientists, ultimately, are responsible to future generations and all of society, not just to policy makers and funding priorities.

---

1 See Appendix III for the workshop programme.

2 ISSC (2010). ISSC-CIPSH Joint Symposium 2010: Changing Nature, Changing Sciences? – Final Statement of Outcomes. See Appendix I.

3 Hackmann, Heide, Foreword to Climate Change, Ethics and Human Security, Eds Karen O'Brien, Asunción Lera St. Clair and Berit Kristoffersen (Cambridge University Press, 2010), p. xi.

Second, it is also important to make the space for scientists to do research that they feel is important to understand and address GEC, regardless of what the political implications are. In the case of such "blue sky science," decision-makers and users of the research might not necessarily be needed in its initial design and production. Their role is sometimes important and necessary only when it comes to the application and use of the knowledge developed.

As a final note, many participants indicated that the Belmont Challenge White Paper does not speak adequately to social science concerns or fully integrate social sciences perspectives into the research mission and its associated priorities. The insights from the large variety of social science disciplines, which bring value through their unique perspectives and epistemologies, need to be incorporated effectively.

Social sciences are extremely relevant not only for the priority research areas, but also to the supporting elements that were cited as required to address the Belmont Challenge. These include: gathering information on the state of the environment, in this case through advanced *social and natural science* observation systems; assessing risks, impacts, and vulnerabilities; and developing and providing enhanced environmental information services through knowledge platforms. In sum, participants recommended that the Belmont Challenge White Paper should be revised to incorporate key social science concerns and reflect the important social science contributions critically needed for the initiative to achieve its objectives.

"Social sciences are extremely relevant not only for the priority research areas, but also to the supporting elements that were cited as required to address the Belmont Challenge. These include: gathering information on the state of the environment, in this case through advanced *social and natural science* observation systems; assessing risks, impacts, and vulnerabilities; and developing and providing enhanced environmental information services through knowledge platforms."

1. RESULTS FROM THE RESEARCH AGENDA SETTING DISCUSSIONS

In the first session of the workshop, the participants were asked to consider the following questions:

1) Key social science priorities:
What are the most compelling, urgent and useful social science research priorities in relation to global environmental change and the Belmont Challenge?

2) Critical knowledge gaps:
What are the critical gaps in social science research within the context of global environmental change? Which important questions are not yet being explored by social scientists?

3) Priorities for inter- and cross-disciplinarity:
Which questions necessitate inter- or cross-disciplinarity, within the social sciences and between the social sciences and other scientific fields (e.g. natural sciences, engineering, etc.)?

4) Trans-disciplinarity and science-society relations:
What difference would it make to have decision makers at national, regional, or international levels listening to the answers to the priority questions defined?
How important are the co-design and co-production of knowledge with decision makers and other users of research; and how do we build this into our research agenda-setting processes?

5) Social science framings:
Given answers to the above, how could the social sciences reframe the Belmont Challenge and its associated priorities?

Responses from the research agenda discussions have been grouped into eight broad themes below: Reconceptualisation and Clarification; Transformation Processes; Communication and Education; Methodology, Data, and Analytical Tools; Governance and Institutions; Ethics, Equity, and Cultural Diversity; Markets and Risk; and Miscellaneous. Each is discussed below. Participants recognised that for many of these issues some research exists, yet further exploration is a priority. This section ends with a reference to the research agenda findings from the 2011 IHDP survey of social sciences and humanities scholars.

1.1 RECONCEPTUALISATION AND CLARIFICATION

RECONCEPTUALISE. The social sciences need to do reflexive, depth work, to reinvent themselves to rise to the challenges of GEC. The social sciences arose out of an historical imperative, in response to the real-world challenges of their era as well as the struggle for legitimacy and credibility (e.g. sociology arising as a response to the issues of modernity). It is time to re-think the social sciences themselves so as to ensure they are prepared to respond to the challenges of the anthropocene. Fundamental reconceptualisation concerning social science disciplines and categories of GEC issues will also help to resolve the existing disconnect between, for example, social and environmental policy, or strengthen the relationship between environmental issues and the political and geographical agenda. New forms of social sciences may be needed, or new forms of interdisciplinarity, to respond to the crucial issues we face.

Examples include:
- How do we measure value, and how do we decide which things are valuable (e.g. progress, human wellbeing)? How can we redefine progress and quality of life? We must create and disseminate the new set of metrics for measuring the value that underlies global sustainability. We need to be able to effectively measure growth, progress, and the good life/good society, beyond GDP. We must not underestimate the power that the measurement instruments we choose have in shaping debate, discourse, and understanding.
- The concept of production itself needs to be reframed, to look at the metabolic flow of energy from the sun, through plants, animals, the soil, humans, and through to waste. Similarly, the concept of consumption also needs to be reframed.
- What are the limits and usefulness of Earth Systems thinking? What alternative conceptual framework(s) can the social sciences offer?[1]

CLARIFY. Considerable clarity is also needed regarding GEC, across a variety of dimensions. First and foremost, where are we going? What is our vision – or visions – for dealing with global environmental change? How will we know when we've succeeded? Without a vision – or a variety of pathways – around which the global community is aligned, we risk privileging the most vocal minorities and diffusing our efforts and resources.

1 For further questions linked to conceptual frameworks, please see Appendix IV to download Gísli Pálsson's presentation on the forthcoming ESF RESCUE paper: "Challenges of the Anthropocene: Contributions from Social Sciences and Humanities."

Secondly, we need to be clear about the true impact of unsustainability. Key questions include:

- What are the likely impacts on society of major issues like urbanisation, displacement of people, distribution of limited resources, and natural (environmental) changes?
- What are the socioeconomic implications of crossing ecological and planetary boundaries? What social boundaries or limits does GEC raise and what implications do they carry (e.g. conflicts, reconfigurations of power)?[1]
- What are the implications of environmental change in broad empirical contexts, such as agriculture, fisheries, and timber production?

Finally, some of the key terms we are working with in GEC require further clarification. Specifically noted were "sustainable development", "sustainability", and "development". Regarding the production of knowledge, terms like "interdisciplinary", "multidisciplinary", and "transdisciplinary" were highlighted as needing greater agreement around a common definition. Perhaps even the term "global environmental change" requires further clarification. Different definitions by stakeholders of these issues can foster inefficient alignment of resources toward unclear long-term objectives.

1.2 TRANSFORMATION PROCESSES

Once we are clear about where we are going regarding GEC, key issues are: how do we get there and how does change really happen? More research is needed across a variety of dimensions related to transformation, ranging from individuals to markets to society.

SOCIAL TRANSFORMATION. How does social transformation come about; how does it really work? What can we learn from current and past social movements in order to stimulate new ones that support the GEC agenda? What conditions can be put in place to foster large-scale social transformation toward sustainability? What incentives might trigger changes in the social practices, structures, and systems – in each local context – that would foster sustainability? A related issue is adaptability: Under what conditions have communities and societies adapted in order to be sustainable? What is the history of adaptation, including archaeological perspectives?

PROCESS AND PLATFORM TRANSFORMATION. What are the processes and platforms needed to facilitate large-scale collaboration, innovation, knowledge transfer, and new value creation for global sustainability? Which existing platforms and processes can be used, and which new ones are needed?

MARKET TRANSFORMATION. How do we set up the conditions to support the development of existing markets (e.g. agro commodity supply chains or the fishing industry) into full sustainability? How might we rethink the nature of growth and its measurement? How would we actually bring about a global green economy with equitable growth? What are the conditions required to foster its emergence?

TRANSFORMATION OF ACADEMIA. How can academia structurally and culturally make the transition from a largely mono-disciplinary focus to being grounded in multi- and transdisciplinarity? What can be done to redress the two-cultures balance between the natural and social sciences, such that fully transdisciplinary disciplines arise in support of GEC? How do we prepare the next generation of scientists? What changes need to occur regarding peer-review, funding flows, recognition and compensation at the university level, academic training and other areas in order to make this shift? And how could that change actually happen? How can we ensure that other forms of knowledge are recognised, and that other ways of disseminating knowledge results are explored?

POLICY TRANSFORMATION. How does policy change occur in all relevant local contexts? What conditions can be cultivated to support policy change in favour of global sustainability in crucial political arenas? How can we talk about policy co-production? What are the multiple pathways that might allow social science to help to provide better and more specific data to assist decision makers to collaborate with local communities/regions in developing and owning adaptation/mitigation strategies? What is the role of knowledge and power in decision-making processes?

TRANSFORMATION OF LEADERS, CHANGE AGENTS, AND SCIENTISTS. How do we develop leaders, change agents, and scientists that have the metacognitive and emotional intelligence capacities required to understand and respond effectively to the profound complexity and ambiguity of GEC? Beyond teaching new skills and knowledge, how do we support the development of the deep psychological structures that undergird the mind-sets, thinking, and action needed to address GEC?

CONSUMER BEHAVIOURAL TRANSFORMATION. Further work is needed to understand the deep drivers behind human behaviour (especially consumption, power, access to resources), and how to best work with them to support GEC. This includes inquiry into the values and other psychological factors – such as worldview and meaning-making – that underlie behavioural change. A related issue is interpretation: How do people interpret GEC, what does it mean to them and how does it influence their actions?

1 For example, in relation to the IPBES (http://ipbes.net/): social anthropology, sociology, cultural understandings, and indigenous knowledge would be beneficial.

1.3 COMMUNICATION AND EDUCATION

COMMUNICATION. A common comment is that, to date, science has failed in effectively communicating its message and educating the populace about GEC. Many participants wanted to know why this is, and what can be done to address the situation. Specific calls were made for additional research on:

- How to effectively communicate and disseminate research findings in local contexts?
- How to tailor GEC-related communications so as to deeply resonate with the different worldviews, value systems, and meaning-making systems present in in any population, thereby supporting behavioural change?
- How to build a common language and a comprehensive methodology for communication between the natural sciences and social sciences, and from the natural and social sciences to the rest of society?
- How to make social science language more accessible (i.e. clearer and more consistent)?

EDUCATION. A high priority is research on how to better educate people about GEC issues.

- What curriculum is needed for students, youth and adults, men and women, to learn appropriate social science knowledge related to GEC?
- How do we more effectively raise interdisciplinary awareness on climate and environmental issues (global environmental literacy) at the primary, secondary, and tertiary levels? How can the relevant actors be motivated?
- What is the role of the media in educating people about GEC issues? How can we better understand how media might play a detrimental role?

> There is a crucial need to develop and build capacity around common methodologies for inter-, cross-, and trans-disciplinary research.

1.4 METHODOLOGY, DATA, AND ANALYTICAL TOOLS

METHODOLOGIES. Additional research is required to refine or build methodologies relevant for GEC. Prominent ideas included:

- There is a crucial need to develop and build capacity around common methodologies for inter-, cross-, and trans-disciplinary research.
- What are the appropriate methodologies to better integrate modern science with local or traditional knowledge and science? Social sciences do not look as closely at, and strive to integrate, traditional knowledge as well as they could; this potentially weakens their outcomes.
- What methodologies best support the regular, deep involvement of local communities in developing the solutions and responses to GEC in their areas? When responses are externally driven and not generated locally they tend to be less accepted and achieve insufficient integration.
- A critical gap is the deeper application of systems thinking to the social sciences aspects of GEC. Specifically in the form of appropriate modelling and understanding the linkages between technology, knowledge, and institutions.
- Methodologies need to be strengthened and standardised for the elaboration and construction of multi-scale metabolism indicators (e.g. material flow analysis, life cycle assessments, and measurement parameters for chemical, aerosol and other types of pollutants [plastics, heavy metals, endocrine disruptors, etc.] and their impacts on environment and human health).
- Baseline data for the social sciences regarding GEC is needed in some key areas, mostly in the Global South, and particularly in relation to local contexts and evolving realities. For example, local observatories or clusters could be funded to work on gathering, classifying, and analysing local-regional knowledge produced in the South, as well as promoting research on key issues for local-regional needs. Such clusters could be nodes of knowledge sharing for both North-South relationships and South-South relationships or cooperation schemes.

ANALYTICAL TOOLS. Several tools were cited as crucial for helping to advance work on GEC:

- Social models for societal behaviour (where possible, recognising that not everything can be modelled). Possibilities of developing some form of prediction capability for the social sciences should also be examined.
- Risk assessment tools, as related to GEC, need to be strengthened and further developed.
- Bioeconomics or ecological economics analysis for enriching policy making.

1.5 GOVERNANCE AND INSTITUTIONS

The role of governance and institutions in addressing GEC is critical, and more social science research needs to be done on a) how to work with existing structures, and b) what changes may be required of them to enable effective responses to GEC. The high priority ideas that surfaced were:

- How do we ensure collaboration among local, regional, national, and supra-national systems of governance?
- What international governance systems are needed to respond to the coming 'storm' of environmental limits, social limits and conflicts, and global security? What other institutional changes are required to respond to GEC?
- More action-oriented and participatory research is needed to integrate public participation into decision making and for informing policy at all scales.
- Is democracy always an advantage?
- What is the role of knowledge in policy making and decision making (including local knowledge)?
- What are the social and political repercussions of mitigation and adaptation initiatives?

1.6 ETHICS, EQUITY, AND CULTURAL DIVERSITY

ETHICS. Research on ethics as related to GEC is critically needed because of the role it has on framing policy issues and the priorities they set. There are, for example, significant ethical issues related to fair water trade that go beyond the traditional economic framing of the issue. Each of the Grand Challenges identified through the ICSU-led Visioning Process has substantial ethical issues that should be well researched and the resultant insights used to inform the on-going dialogue.

EQUITY. Three principal research streams that are related to equity and GEC were identified:

- How do we achieve equitable and inclusive growth, where everyone can harness its benefits but without unduly limiting growth?
- What are the relationships between inequalities (within and across societies) and global environmental change? How are inequalities (within and across societies) perpetuated?
- How does power operate at global, international, national, local, and individual levels? Further research on such power relations should also inquire into the relationship between power structures and ecological degradation.

CULTURAL DIVERSITY. To collectively respond well to GEC, we need further research into how to integrate the diversity of local, regional, and cultural perspectives into the dialogue. How do we not alienate any voices without becoming mired in pluralism? How do we honour the equal ground value of each perspective while acknowledging the different relative value of voices as related to different elements of GEC? Related to this, what is the role of different value systems in individual and collective behaviour and decision making?

1.7 MARKETS AND RISK

Beyond the aforementioned topics on how to build a green and equitable economy, and how to transform specific markets to be more sustainable, a few specific ideas related to markets and risk arose as high priority.

- What are the market and marketing influences on GEC? How are markets formed; how can we understand the exchange process?
- How do we ensure there isn't an ideological domination of the GEC dialogue by a market perspective? How do we support the development of a more integral, holistic approach and discourse concerning GEC?
- The mechanisms of water trade and the political mechanisms behind it need research, looking at what works and what does not (e.g. the economic mechanisms behind water scarcity/needs).
- We need a deeper understanding of what constitutes risk, resilience, and uncertainty. Also, what are the different perceptions of these risks among different stakeholders?

1.8 MISCELLANEOUS

A myriad of priority issues were mentioned that are either cross-cutting issues or do not correspond with any of the other categories. These are nonetheless important to consider for a long-term social science research agenda.

- There is a deep need for longitudinal research on the monitoring of population and social changes, similar to the long-term data monitoring that occurs in the natural sciences.
- Population growth and overconsumption remain powerful drivers for GEC, yet they have largely dropped off the research agenda. How can individual and political resistance to these issues be overcome so as to support progress on them?
- More cross-country comparisons and analysis are needed to understand under which conditions, in which locations, GEC will have negative (and positive) effects.
- How do we effectively integrate social and ecological theory (e.g. dwelling, biosociality, nature cultures)?
- It is one thing to say that action related to GEC is socially embedded, but we need to empirically examine how that embeddedness works. Key to this is identifying the relevant social contexts for the range of actors who impact the environment.
- We need to better understand the concept of local identity of the population within the social structure and its impact on population mobility in relation to global change.

– Further work is needed on the differences in vulnerability of populations to GEC, at regional and local scales.
– Inter- and trans-disciplinary research is required regarding multi-scale metabolism analysis and indicators (e.g. socio-economic life cycle assessment, analysis of energy and material fluxes – bioeconomy – from a social perspective, examination of regional and global interactions on different time scales) for diagnostics and evaluation of variables and alternatives in order to implement viable adaptation and mitigation actions against GEC.

1.9 IHDP SURVEY FINDINGS ON THE PRIORITIES FOR THE RESEARCH AGENDA

In collaboration with the ISSC and UNESCO, the International Human Dimensions Programme on Global Environmental Change (IHDP) recently commissioned a survey of social science and humanities scholars concerning their engagement with global environmental change research. The initial results of this survey were presented at the workshop as one of the relevant inputs to the agenda setting exercise, and formed a useful reference point for the discussions. The findings on the priority research topics are listed below, as a useful point of comparison with the key priorities and gaps identified by the workshop participants. Whilst the survey did not reach a representative sample and had a low (4.94%) response rate, a total of 1,276 survey responses were received as of 29 March 2011, including respondents based in 103 countries (the most well-represented regions included Western and Central Europe [32.5%], Sub-Saharan Africa [17.2%], and the US and Canada [16.2%]). Below are the lists of key priorities and biggest research gaps indicated; download the full presentation of the findings from Appendix IV.[1]

Top research priorities indicated TABLE 13 of the report

Question: Which of the following research groupings do you consider as **high priorities** to understand how people/societies **cause, respond to, and adapt to global environmental change?** Please rank your top four choices.

RESULTS:
1. Equity/equality; wealth/resource distribution
2. Policy; political systems/governance; political economy
3. Economic systems; economic costs and incentives
4. Globalisation; social and cultural transitions
5. Education; employment; entrepreneurship
6. Identity; traditions; beliefs; values
7. Health care; food security; nutrition
8. New technology; innovation
9. Population growth/decline; age and gender ratios
10. Emergency response; disaster and risk mitigation
11. Urban/rural migration; displaced populations
12. Behavioural psychology; behavioural economics
13. Freedom; autonomy; human rights; political empowerment
14. Multilateral dialogue; negotiations; treaties
15. Ethnic/resource conflict; conflict resolution

Biggest research gaps indicated TABLE 14 of the report

Question: In which of the following research groupings do you believe that **insufficient research** is being conducted to understand how people/societies **cause, respond to, and adapt to global environmental change?** Please rank your top four choices.

RESULTS:
1. Equity
2. Identity
3. Globalisation
4. Policy
5. Behaviour
6. Conflict
7. Freedom
8. Education
9. Migration
10. Incentives
11. Health
12. Innovation
13. Disaster
14. Dialogue
15. Population

1 IHDP (2011). Survey of Social Sciences Scholars on Engagement in Global Environmental Change Research. International Human Dimensions Programme on Global Environmental Change (IHDP). Available at http://www.ihdp.unu.edu/file/get/9091.

2. RESULTS FROM THE MOBILISATION AND CAPACITY DEVELOPMENT DISCUSSIONS

Participants were asked a variety of questions related to mobilising the social sciences toward more deeply engaging in research related to GEC and building the capacity necessary to do so:

- What are the barriers that prevent social scientists from becoming involved in global environmental change research? How can we overcome these barriers; what types of incentives are needed for social scientists to direct attention to environmental issues?
- What are the challenges for social scientists of undertaking interdisciplinary global environmental change research across the social, physical, and natural sciences? How do we best tackle these challenges?
- How can we improve the use of social science research findings and recommendations by policy and decision makers at various scales?
- What are the most urgent capacity needs in relation to increasing the production of social science knowledge relevant to global environmental change?
- What do we need at the international level (in terms of funding and networking) for this sort of research to happen?

The following is a summary of the participants' insights, which have been broken into five categories: Barriers and Challenges; Solutions and Ways Forward; Improved Research Use by Policy and Decision Makers; Capacity Development; and Support Requested from International Funding and Networking Organisations.

2.1 BARRIERS AND CHALLENGES

The 2010 World Social Science Report (WSSR) is an important resource to understand the barriers and challenges faced with respect to social sciences and GEC.[1] Françoise Caillods (Senior Managing Editor of the 2010 World Social Science Report, ISSC) presented, among other things, a list of key barriers and challenges listed in the 2010 WSSR.[2] Many of the participants reiterated these challenges during the discussions. As such, the lists from the WSSR presentation are first offered below, followed by additional barriers noted by the participants. The subsequent section focuses on the solutions and potential ways forward to address these issues.

2010 World Social Science Report findings on key obstacles

The social sciences are experiencing an explosion of fields and sub-fields, as well as hyper specialisation. Additionally, there are divisions between and within social science disciplines. While disciplines are essential for both the renewal of knowledge and for quality control, they can also limit creativity. Ultimately, the social sciences must become more inter- and transdisciplinary if they are to fulfil their potential with respect to addressing global challenges.

The key obstacles to be overcome regarding interdisciplinarity include:

- In principle there is no hierarchy of disciplines; however, in practice this is not always the case and academic recognition as well as promotion may be less forthcoming for those who work in "less worthy" disciplines than the traditional ones. Interdisciplinary research oriented towards solving concrete problems is sometimes considered to have a lower status than more conceptual blue sky research.
- There may be less funding available for interdisciplinary research: funding mechanisms are still often discipline-based, whereas project-driven mechanisms, external and mixed–mode funding would make it easier for researchers to propose – or to take an interest in – interdisciplinary research.
- There are fewer scientific interdisciplinary journals, and therefore few ways to disseminate the results of interdisciplinary research.
- Career management, performance management, and advancement are framed within disciplinary boundaries and measured in terms of publication in disciplinary journals.

---

1 ISSC (2010). World Social Science Report: Knowledge Divides. United Nations Educational, Scientific, and Cultural Organization, Paris. Available at http://www.worldsocialscience.org/?page_id=62.

2 See Appendix IV to download the presentation about the 2010 World Social Science report, by Françoise Caillods.

Other interdisciplinary challenges of GEC raised by the WSSR 2010, especially as related to overcoming the social/natural divide, are:

- Social and natural sciences have different research traditions, different cultures, and often speak different languages:
  - ¬ Social scientists are wordier, privileging the construction of conceptual frameworks rather than aiming to find concrete solutions; many social scientists believe in the social construction of scientific knowledge, and this can undercut attempts to collaborate with natural scientists, who may prefer a more positivist approach.
  - ¬ Some natural scientists attempt to – or, due to inadequate frameworks or incentives for collaborating with social scientists, might be required to – undertake social science research themselves without sufficient training or background in social sciences.
- Questions remain. Although interdisciplinarity is key, it could be detrimental for traditional disciplinary distinctions – or whole disciplines themselves – to disappear. How can interdisciplinary training be enhanced while the disciplines are maintained? This leads to the issue of scientists' training: should social scientists be trained in natural sciences and vice versa? Should integrated transdisciplinary training be prioritised? Or, should this take the form of additional ad hoc, yet rigorous, training? Or dual training? In terms of institutions, inter- and transdisciplinary research institutions are still rare and should be developed through more effective institutional management.

Key challenges and issues around the research-policy nexus raised by the WSSR 2010 are:

- The interface between policy-makers and researchers, which can be tense: they have different time lines and different objectives. Some social science researchers are reluctant to engage in policy advice due to: lack of conviction in the effectiveness of current frameworks for such interaction; belief that this should not be the function of knowledge or that there is no "true" advice; or belief that advice should only be used if it has been socially constructed and accepted. On the other hand, policy makers regret that they don't currently have access to rigorous and transparent evidence on the extent of problems and on what works.
- The success of any policy depends on the degree of its acceptance by the population concerned: early participation of local stakeholders is needed to secure ownership.
- Decision makers are found at all levels; local, national, regional and international / central levels of decision making should be considered when referring to the research-policy nexus. Research findings influence decisions, but rarely immediately. In fact, concepts and findings do percolate through to the informed public, through education, through the media, and through the work of think tanks. In this way knowledge and research end up influencing policy debates.

Participants' Suggestions:

FRAGMENTATION AND LANGUAGE. Disciplinary fragmentation and language differences within the social sciences and humanities result in fragmentation between the key theories from leading thinkers.
Research is not sufficiently disseminated due to the language limitations, which leads to duplication, lack of synthesis, limited scaling, and failure to take advantage of synergies. The overall lack of collaboration across the social sciences is a key challenge for GEC. Nonetheless, there are good examples of interdisciplinary research being done, and they should be looked at closely.[1]

BIASED FRAMING. The framing of GEC research questions is often approached from a natural science point of view, which ends up not attracting social scientists, and can lead to bias and narrowness. For example, the term "Earth System" science, or any notion of "global" framing may alienate some social scientists due to their epistemology or the scale at which they work. In general, social science research tends to work at local, regional, and national scales. Therefore, to integrate well, this difference in scale should be taken into account when designing combined research between the natural and social sciences. The more funders can frame questions inclusively, such that they acknowledge the social science dimensions, the more social scientists will be drawn to participate.

INSUFFICIENT LEADERSHIP AND ENGAGEMENT.
Social scientists have frequently not been invited to take a leadership role in the development of and engagement with major research questions related to GEC. By being invited in late in the process, when it may be too late to reframe, their voices and potential impact are drowned out. This has contributed to the situation that many leading thinkers within the social sciences are not involved in GEC. Two related issues are:

- Overall, there is weak mentorship for emerging scientists, especially as related to engaging in interdisciplinary research and GEC research.
- It has been historically difficult for social scientists to connect strongly and regularly with policy makers and leaders of social movements in order to jointly develop concrete solutions.

1 Hector Sejenovich suggested several examples of interdisciplinary work being done in Latin America related to GEC.

2.2 SOLUTIONS AND WAYS FORWARD

Participants posed a number of potential solutions and new directions that would begin to address the aforementioned challenges. There was insufficient time to generate solutions to all of the issues.

FRAME AND REFRAME. Major GEC questions and related disciplines can be reframed to recognise the inherent social sciences elements. Instead of "Earth System Science", for example, a phrase like "Social Transformations and Global Change" could be used. The difficulty is coming up with framing that also appeals to natural scientists. Regardless, an integrated approach to framing research questions should become the norm; such an approach would ideally result in the creation of shared opportunities for social and natural scientists to contribute their knowledge. It was also noted that social scientists ought to increase the rate at which they invite natural scientists to participate with them in research. One participant suggested an epistemological redefinition of each science based on the problems posed by global change. Ultimately, this person claimed, we are aiming toward a science of the environment that brings together the integrated knowledge of all sciences.

BUILD SUPPORT NETWORKS, A DATABASE, AND A GEC COMMUNITY OF PRACTICE. Additional support networks are needed that engage both sciences and provide the platforms to learn about and do interdisciplinary research related to GEC. Connected to this would be a public global database of social sciences and natural sciences work that is relevant to GEC. The final piece is to support the development of an epistemic community of practice from across disciplines that are working on GEC. It was noted that the IHDP is already providing a strong support network, and the new Earth System Science Initiative will offer the international GEC community the necessary opportunities to create platforms and networks: the beginnings of which will be formed in the coming months by the Transition Team put in place to design the initiative.

CREATE GLOBAL ASSESSMENTS AND INTEGRATING FRAMEWORKS. Periodic integrated global assessments are needed; these would fully integrate the social sciences into global change assessments. These could be supported by encouraging proposals to include a comprehensive framework that would integrate the research results coming out from different methodologies and research tools (quantitative / qualitative). Such a common integrating framework that would feed into the integrated global assessments still needs to be developed.

IMPROVE ACADEMIC AND FUNDING PROCESSES AND STRUCTURES. Both the proposal and journal review processes need to be adjusted in order to support and better value interdisciplinary research as well as North-South cooperation. Within universities, changes need to be made to shift from the predominant favouring of the disciplinary model to one which recognises and supports the contribution of interdisciplinary exchange and research. We must recognise that these changes have been called for by many and for some time: systems-level changes within funding and science and technology policy must be implemented accordingly.

DEVELOP INNOVATIVE RECOGNITION AND REWARD STRUCTURES. A parallel process to revamping existing structures in funding agencies, journals, and universities is to build recognition and reward structures that support interdisciplinary research for GEC. High-profile, highly funded initiatives that set the "gold standard" for quality interdisciplinary research for GEC could go a long way toward catalysing change across the system as a whole.

2.3 IMPROVED RESEARCH USE BY POLICY AND DECISION MAKERS

Participants at the workshop touched on the important question of how to improve the use of social science research findings and recommendations by policy and decision makers. In general, two strategies are being used to support policy and decision making based upon social sciences research: 1) a direct approach, which involves working directly with policy and decision makers; 2) an indirect approach which focuses on working with civil society and media who then pressure or lobby policy and decision makers. With regard to the latter, several participants noted that media and knowledge brokers like think tanks and consultancies need to be better enrolled to support a political agenda for global literacy on GEC issues. To work more effectively *directly* with policy and decision makers, participants suggested the following strategies.

BUILD THE RELATIONSHIPS. Hold more networking events to build relationships between policy makers and social scientists at local, national, and international levels. By proactively making their capacities related to relevant GEC topics known to policy makers, there will be increased demand for social scientists' research.

ENGAGE EARLY AND CO-PRODUCE KNOWLEDGE. Policy and decision makers should jointly design and – where appropriate – co-produce GEC research with social and natural scientists. This enables the relationship to develop, as well as ensuring that the questions are framed such that they result in actionable insights that support clear societal goals.

FOCUS ON PRACTICAL OUTPUTS. Social scientists can learn from natural scientists and economists regarding the output of their research. Extra effort needs to be invested to create useful and practical products and tools from the research that support decision making, forecasting, and evaluating. If the research isn't immediately useful, policy makers aren't likely to pay attention.

PROFESSIONALLY AND STRATEGICALLY TRANSLATE SCIENCE INTO POLICY LANGUAGE. There is a role for intermediate organisations that can translate key social science findings related to GEC into relevant data to support evidence-based policy. The language of social science research must be accessible, succinct, clear, and brief. Such institutions could also strategically forge and clarify the linkages between existing research and policy topics.

STRATEGICALLY TARGET POLICY JOURNALS AND CURRENT DEBATES. Intermediate organisations could also support the publicising and target-marketing of relevant research into current political discussions. This could be via policy journals and blogging as well as direct action campaigns.

2.4 CAPACITY DEVELOPMENT

In order to increase the production of social science knowledge relevant to GEC, significant capacity development is required. However, clarity is required on two levels. First of all, it is not clear to many participants where we are going with respect to the social sciences and GEC. What are the objectives of the research agenda? Secondly, once we are clear about the social science research agenda for GEC, it will be necessary to figure out the specific capacities needed. Overall, there is a lack of understanding of what capacities exist, which issues are of the most relevance, and what capacities are needed. Nonetheless, participants did mention specific areas on which to focus, which are outlined below.

Some participants also stated that we have a significant amount of social science research already that is not being optimally used to support GEC. Further dissemination of existing knowledge is needed therefore as a parallel process to capacity development, in order to make such research more visible. This could be the role for an intermediate institution, for example through events and publications (such as the ISSC World Social Science Report, which in 2013 will focus on climate change).

Finally, knowledge production concerning GEC issues must develop hand-in-hand with its usage. Therefore, in addition to capacity building for social scientists and their institutions, concurrent work should be undertaken to build the capacity of policy makers, administrators, civil society, and citizens. This is becoming increasingly relevant as the trend is toward co-design and co-production of research with decision makers and members of civil society.

BEYOND THE SCIENCE. Many of the recommendations for capacity building involved arenas that were beyond science alone. They focused more on process and contextual knowledge of GEC rather than technical capacity.

- How to effectively co-design and co-produce knowledge on GEC with different stakeholders, in an inter- and cross-disciplinary way, involving the natural sciences.
- How to engage governments and policy makers. There is a need for developing and disseminating knowledge on how to strategically engage each relevant country government about social science research.
- The science and context of GEC. Social scientists need a degree of competence around climate change and GEC issues. Their training on environmental sciences should also be complemented with social science training for those in the natural sciences. This would promote a common language and mutual respect for methodology and different research traditions.
- Clarification of – and capacity building around – new competencies needed by social scientists for 21st century engagement with GEC. These include topics like knowledge dissemination, influencing, and communications.

GLOBAL SOUTH. Extensive capacity building within the social sciences is required in the Global South, at all levels: system, organisational, and individual. Ideally, research related to any country should be produced by scientists from that country. Special focus should be on regions that are likely to be affected by climate change and water problems. See the 2010 World Social Science Report for extensive recommendations for how to redress the global knowledge divide in the social sciences.[1] Capacity must also be built for international North-South and South-South collaboration on the basis of equality and mutual respect.

YOUTH. Without a steady stream of youth – or early career researchers – entering the social sciences, an effective multi-generational response to GEC will not be possible. Special attention should be on supporting development of young and early career scientists in the Global South, as well as an overall focus on interdisciplinarity.

USE OF LOCAL KNOWLEDGE/SCIENCE. There are at least three capacity building dimensions related to the issue of engaging local knowledge:

- How to effectively and authentically integrate Western science with traditional knowledge and science. Individual and institutional capacity is needed worldwide in this area.
- How to translate local knowledge into social science articles and data. Good practices for how to do this need to be developed and disseminated.
- How to manage and gain access to existing research concerning local knowledge/science. It was recommended that such data should be put in public access databases, with open source playing an increasingly important role.

2.5 SUPPORT REQUESTED FROM INTERNATIONAL FUNDING AND NETWORKING ORGANISATIONS

The final area participants were asked about concerned what needs to be done at the international level – in terms of funding and networking – to stimulate more social science research for GEC. Reference again must be made to the 2010 World Social Science Report which offers significant insight into this.[2] The ideas from participants fell into three broad categories: maintain strategic prioritisation; support cross-pollination; and cultivate interdisciplinary collaboration.

ENSURE STRATEGIC PRIORITISATION OF THE SOCIAL SCIENCE RESEARCH AGENDA. Funders and networking organisations need to consistently support the development and regular realignment of strategic social science research priorities as related to GEC. Such a global research strategy needs to be nimble enough to adapt with the dynamics of GEC, far-looking enough to maintain pressure on the topics that are really important, and built via both bottom-up consensus and top-down strategic visioning. Key to this process is to avoid duplication of research. This will require assessing and monitoring existing and emerging interdisciplinary research programmes, from institutions and international entities all the way to universities and researchers.

SUPPORT REGULAR INTERACTION AND CROSS-POLLINATION.
Consistent interaction needs to be fostered between scientists in the North and South and also across generations. Through initiatives to cross-pollinate knowledge and mentor emerging researchers, there is a greater chance of research partnerships forming to take advantage of synergies. Such initiatives would ideally be done via a funded research platform, so that scientists can work together on real projects rather than just exchange ideas.

“Extensive capacity building within the social sciences is required in the Global South, at all levels: system, organisational, and individual. Ideally, research related to any country should be produced by scientists from that country.”

1 ISSC (2010). World Social Science Report: Knowledge Divides. United Nations Educational, Scientific, and Cultural Organization, Paris. Available at http://www.worldsocialscience.org/?page_id=62.

2 See O’Brien, K., ‘Responding to the global environmental change: social sciences of the world unite!’ and Balstad, R., ‘The interdisciplinary challenges of climate change research’ in ISSC (2010). World Social Science Report: Knowledge Divides. United Nations Educational, Scientific, and Cultural Organization, Paris. Available at http://www.worldsocialscience.org/?page_id=62.

FUND INTERDISCIPLINARY, MULTIDISCIPLINARY, AND INTEGRATED COLLABORATION.

The greatest call came for increased funding of interdisciplinary initiatives related to GEC. Participants noted several subtleties and details related to this issue:

- Funders should be willing to be proactive – not just consensus driven – and lead the changes needed to address GEC.
- Long-term and region-focused funding is needed to support collaborative research and the development of effective interdisciplinary partnerships.
- Funding mechanisms should support diverse networks for international collaborations. These should include mechanisms for including early career researchers and postgraduate students, and give priority to emerging themes and team work that is trans- and interdisciplinary.
- Coordination of funding is crucial to avoid overlap and ensure the strategic agenda is fully addressed.
- Funding proposals should stimulate the co-generation of knowledge across disciplines as well as across sectors (e.g. including policy makers and civil society), while ideally being tied to priority change situations.
- Fund "sand pits" and "change labs" where social scientists and natural scientists come together to grapple with complex problems.
- Consistently expand beyond university funding. Entities like environmental citizens' assemblies and other organisations that mobilise the masses are important partners to promote change. Such networks need regular promotion and support, and can engage closely with social scientists to advance GEC research through action learning.


03

Conclusions

This document has attempted to summarise and synthesise the discussions on the research agenda priorities and the mobilisation and capacity building required for the social sciences to more deeply engage with GEC. The report identifies dozens of high-priority issues regarding both the content and the process of developing and implementing a strategic research agenda. The workshop discussions did not agree on concrete problems to prioritise – such as land use, water, or energy – but they brought a multitude of ideas, suggestions, experience, and recommendations to the table. Although it would do a disservice to the many differing perspectives and opinions represented here to extract simplified conclusions from this synthesis, below are four key recommendations, and four key areas of research, based on the most significant points of agreement emphasised by the workshop participants.

1 KEY RECOMMENDATIONS

– Social scientists must claim the territory of global environmental change research as their own, rather than see it as a domain of the natural sciences. Amongst the workshop participants there was no question as to whether social scientists should now become involved: GEC is the domain *par excellence* of social science disciplines, and social scientists are ready to engage with it.

– There is considerable value to be gained by involving the social sciences early and often in the framing of research questions and the co-production of knowledge around those questions. GEC cannot be effectively addressed if the social sciences are added on to the end of a natural science research process. There is also a greater chance of creating durable, effective interventions if decision makers and other users of the research are appropriately involved in the process of designing and producing knowledge.

– Significant capacity building is needed amongst social scientists, especially supporting them to develop a level of competence about climate change, and preparing them with the necessary competencies to help address GEC. Capacity building is also required to some degree within the natural sciences (also in cooperation with the social sciences), to allow mutual understanding of the fundamentals of social science research and the benefits of integrated social and natural science research.

– There is a crucial need for the funding of coordinated, interdisciplinary collaboration that is focused on a commonly defined GEC research agenda. Such a focused and aligned GEC research agenda is needed to ensure the most efficient usage of resources, avoid duplication, drive synthesis across research in order to unlock synergies, and to ensure that key research is operating on the appropriate scale.

2 KEY RESEARCH TOPICS

– **VALUE**: How do we measure value? Which things are valuable in the first place? We need to be able not only to measure progress, but also to redefine what progress and quality of life are in the context of the anthropocene.[1] These questions have fundamental impacts on the way that observations and measurements are taken, and the ways that we quantify or qualify human – and physical – activity.

– **TRANSFORMATION**: Research should be undertaken on transformation across a variety of forms (behavioural, individual, market, policy, academy, social, process, and platform). Existing social movements should be examined to understand how change is effected.

– **COMMUNICATION**: Science communication and dissemination should be further examined, particularly in relation to decision and policy making. Efforts must be made to understand how the detrimental effects of miscommunication of science can be rectified, and how common languages and methods of communication can be developed to allow knowledge to be co-produced and then used effectively.

– **EDUCATION**: The participants also emphasised the importance of the role of education, in relation to which curriculums are needed to allow citizens to learn appropriate knowledge related to GEC, how interdisciplinary awareness can be raised, and how the relevant actors can be motivated.

1 For further discussion of the human condition in the anthropocene, please see Appendix IV to download Gísli Pálsson's presentation on the forthcoming ESF RESCUE paper: "Challenges of the Anthropocene: Contributions from Social Sciences and Humanities."


04

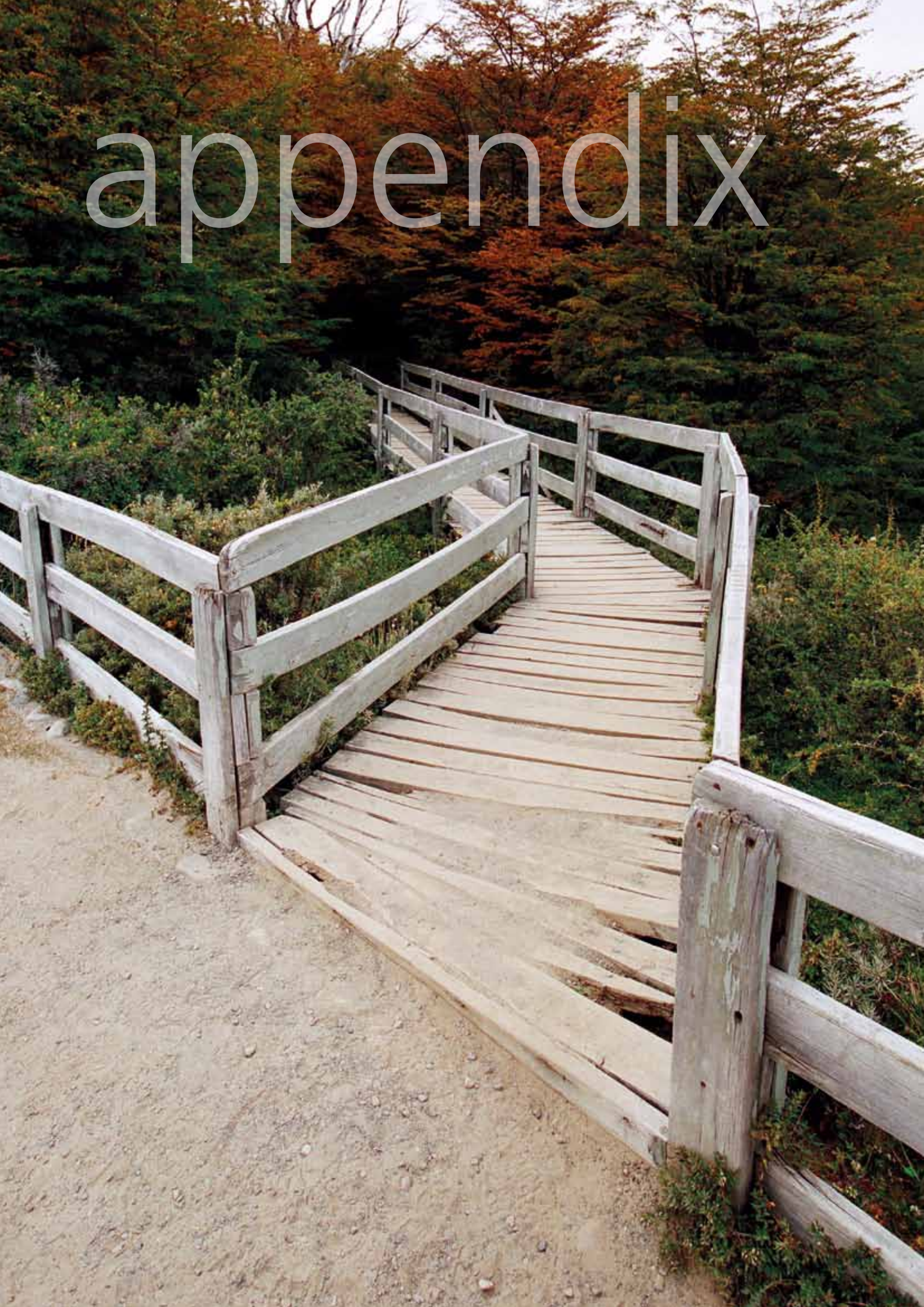
Next steps

This report will serve as a resource, not only to the Belmont Forum and other partners, but to the ISSC, which, in the context of its Climate Change Design Project, will produce a broader, more comprehensive framework for the social science GEC agenda. This framework will pull together the threads of the many agenda-setting and visioning exercises mentioned here (including the IHDP Survey, the UN Task Force Paper on the Social Dimensions of Climate Change, the ESF RESCUE paper on 'Challenges of the Anthropocene', etc. – see the introduction for a comprehensive list), as well as draw on interviews with a select group of leading social scientists both within and outside the field of GEC and climate change.

This consolidated knowledge framework, a first draft of which will be available by the end of 2011, is intended to be shared by all partners and feed into the wider knowledge frameworks around GEC being built internationally, in order to ensure that social science will be a cornerstone for these initiatives. It will also be a key input for the World Social Science Report 2013.

The knowledge framework will be presented to the Belmont Forum at its next meeting, along with recommendations as to how the Forum can engage and develop the network of social scientists established by the agenda setting workshop.

appendix



APPENDIX I: ISSC-CIPSH JOINT SYMPOSIUM

Statement of outcomes

ISSC-CIPSH General Assembly Joint Scientific Symposium
Nagoya, Japan – 13-14 December 2010

Changing Nature – Changing Sciences?

THE CHALLENGES OF GLOBAL ENVIRONMENTAL CHANGE FOR THE SOCIAL SCIENCES AND THE HUMANITIES

Statement of Outcomes

1 The ISSC and CIPSH are committed to strengthening the role, relevance and presence of the social and human sciences in all public spheres, as essential tools to address and educate about the complexity of an increasingly uncertain world brought about by global changes.

2 It is necessary to overcome the traditional disciplinary boundaries that have shaped our sciences and their mutual interaction hitherto, in order to:
- ¬ Build legitimacy vis-à-vis the natural sciences
- ¬ Promote social sciences and humanities to various actors
- ¬ Recognize their salience
- ¬ Ensure that appropriate funding is available

3 We can no longer talk about climate change as something external to the social and human sciences: it is, on the contrary, a domain par excellence of our disciplines. The need for learning across the sciences is recognized as being critically important.

4 It is crucial to acknowledge the co-production of ideas across multiple sources of knowledge (non-expert knowledge, indigenous, private sector, etc.) and the need to build linkages across them.

5 Disciplines are the result of historically developed boundaries; we are in a new era for humanity that requires the acknowledgement of existing relevant work as well as the building of new theoretical and methodological tools, and the rethinking of institutional structures in order to enable us to produce needed knowledge.

6 Education is crucial. While the social and human sciences play a major role in understanding the world's complexity, scientific education should permeate all levels of educational systems, from primary to higher and adult education.

7 We need a better balance between democratic representation (still at the local level) and global competences needed to address world problems (environmental change, social inequalities, social and economic crisis, poverty, conflict, etc.).

8 Given the new challenges, we need to elaborate new philosophical and intellectual frameworks that can help us devise new models of progress and development.

Recommendations

1. The ISSC and CIPSH will work towards promoting integrated research on global environmental change accounting for the conclusions made
   - ¬ with their members
   - ¬ across both councils
   - ¬ with ICSU
   - ¬ with other relevant partners

2. Because of the inverse relationship between those responsible for environmental destruction, climate change, biodiversity loss, etc. and those affected by their negative consequences and possibly by on-going "solutions"; and because of uneven development histories and on-going uneven globalization;

– we will pay special attention to south perspectives, issues of poverty and inequalities, social justice and cohesion, differences in knowledge capacities, linguistic and cultural diversity, lack of voice and power.

Finally,

– The ISSC and CIPSH will work towards developing joint, truly global and inclusive programmes of work with concrete outcomes and deliverables;
– We will also assure outreach to practitioners and policy making actors; and
– Commit ourselves to promoting public deliberation.

APPENDIX II: List of workshop participants

■ scholars nominated by Regional Social Science Councils and selected by the Workshop Organising Committee
■ other representatives
■ apologies

	REPRESENTING	NAME		ROLE	INSTITUTION	CITY	COUNTRY
■	**Africa: Social Scientist**	Agnes G. Mwakaje	F	Senior Lecturer and Researcher	**Institute of Resource Assessment, University of Dar es Salaam**	Dar Es Salaam	TANZANIA
■	**Africa: Social Scientist**	Agnes G. Mwakaje	F	Senior Lecturer and Researcher	**Institute of Resource Assessment, University of Dar es Salaam**	Dar Es Salaam	TANZANIA
■	**Africa: Early Career Social Scientist**	Chipo Plaxedes Mubaya	F	Senior Programme Officer	**African Climate Change Fellowship Programme (ACCFP), Institute of Resource Assessment (IRA), University of Dar Es Salaam**	Dar Es Salaam	TANZANIA
■	**Africa: Social Scientist**	Adebayo Olukoshi	M	Director	**United Nations African Institute for Development and Planning (UNIDEP)**	Dakar	SENEGAL
■	**Arab States: Social Scientist**	Karam Karam	M	Head of Research	**Common Space Initiative**	Beirut	LEBANON
■	**Arab States: Social Scientist**	Karim Makdisi	M	Assistant Professor of International Relations and International Environmental Policy; Associate Director of the Issam Fares Institute for Public Policy & International Affairs	**American University of Beirut**	Beirut	LEBANON
■	**Asia Pacific: Early Career Social Scientist**	Salma Akhter	F	Associate Professor	**Department of Sociology, University of Dhaka**	Dhaka	BANGLADESH
■	**Asia Pacific: Social Scientist**	Deny Hidayati	F	Senior Researcher on Village Community Adaptation to Climate Changes & Natural Resource Management in Relation to Human Security	**Research Centre for Population, the Indonesian Institute of Sciences (PPK - LIPI)**	Jakarta	INDONESIA
■	**Asia Pacific: Social Scientist**	Zainal Abidin Sanusi	M	Faculty Member of the Department of Political Science, Deputy Director for Centre for Global Sustainability Studies	**Universiti Sains Malaysia**	Kuala Lumpur	MALAYSIA
■	**Europe: Social Scientist**	Frans Berkhout	M	Professor of Innovation and Sustainability; Director, Institute for Environmental Studies; Director, Amsterdam Global Change Institute	**Vrije Universiteit Amsterdam**	Amsterdam	NETHERLANDS
■	**Europe: Social Scientist**	Michel Griffon	M	Programme Director	**Agence Nationale de la Recherche (ANR)**	Paris	FRANCE
■	**Europe: Social Scientist**	Nick Pidgeon	M	Professor of Environmental Psychology and Director of the Understanding Risk Research Group	**Cardiff University**	Cardiff	UK
■	**Latin America & Caribbean: Social Scientist**	Gian Delgado	M	Full-time Researcher	**Centro de Investigaciones Interdisciplinarias en Ciencias y Humanidades de la Universidad Nacional Autónoma de México**	Mexico	MEXICO

■ scholars nominated by Regional Social Science Councils and selected by the Workshop Organising Committee
■ other representatives
■ apologies

	REPRESENTING	NAME		ROLE	INSTITUTION	CITY	COUNTRY
■	**Latin America & Caribbean: Early Career Social Scientist**	Renato Cader	M	Director	**Institute of Research Botanic Garden of Rio de Janeiro**	Rio de Janeiro	BRAZIL
■	**Latin America & Caribbean: Social Scientist**	Hector Sejenovich	M	Professor of Social Sciences and Environment	**School of Social Sciences, Universidad de Buenos Aires**	Buenos Aires	ARGENTINA
■	**North America: Social Scientist**	Barrett Brown	M	Co-Director	**Integral Sustainability Center**	Amsterdam	NETHERLANDS
■	**North America: Social Scientist**	Ann Dale	F	Professor and Canada Research Chair in Sustainable Community Development	**Royal Roads University**	Victoria	CANADA
■	**North America: Early Career Social Scientist**	Noor Johnson	F	Doctoral Candidate	**McGill University**	Montreal	CANADA
■	**North America: Social Scientist**	Leah Van Wey	F	Associate Professor of Demography	**Brown University**	Providence	US
■	**Humanities**	InSuk Cha	M	Professor Emeritus	**Seoul National University; UNESCO Chair in Teaching Philosophy for Democracy**	Seoul	KOREA
■	**ISSC Executive Committee**	David Thorns	M	Vice-President for Information and Communications Outreach	**International Social Science Council (ISSC), (University of Canterbury, Christchurch)**	Christchurch	NEW ZEALAND
■	**Regional Council: ACSS**	Karim Barghouti	M	Assistant Professor at the Department of Phoilosophy and Cultural Studies	**Birzeit University**	Birzeit	PALESTINE
■	**Regional Council: AASSREC**	John Beaton	M	Secretary General	**Association of Asian Social Science Research Councils (AASSREC)**	Melbourne	AUSTRALIA
■	**Regional Council: CODESRIA** (MEMBER OF WORKSHOP ORGANISING COMMITTEE)	Ebrima Sall	M	Executive Secretary	**Council for the Development of Social Science Research in Africa (CODESRIA)**	Dakar	SENEGAL
■	**Regional Representative: ESF**	Nina Hoffman	F	Head of Humanities and Social Sciences Unit	**European Science Foundation (ESF)**	Strasbourg	FRANCE
■	**Regional Council: CLACSO**	Emir Sader	M	Executive Secretary	**Latin American Council for Social Sciences (CLACSO)**	Sao Paulo	BRAZIL
■	**UNESCO SHS Sector**	Pilar Alvarez Laso	F	Assistant Director-General, Social and Human Sciences Sector	**UNESCO**	Paris	FRANCE
■	**UNESCO SHS Sector**	Elizabeth Longworth	F	Deputy Assistant Director-General, Social and Human Sciences; Director, Division of Social Sciences, Research and Policy	**UNESCO**	Paris	FRANCE
■	**IHDP** (WORKSHOP ORGANISING COMMITTEE MEMBER)	Anantha Duraiappah	M	Executive Director	**International Human Dimensions Programme on Global Environmental Change (IHDP)**	Bonn	GERMANY

■ scholars nominated by Regional Social Science Councils and selected by the Workshop Organising Committee
■ other representatives
■ apologies

	REPRESENTING	NAME		ROLE	INSTITUTION	CITY	COUNTRY
■	**IHDP**	Deborah Rogers	F	Academic Officer	**International Human Dimensions Programme on Global Environmental Change (IHDP)**	Bonn	GERMANY
■	**International Forum for Funding Agencies in the social sciences and the humanities (IFFA): NRF**	Andrew Kaniki	M	Executive Director: Knowledge Fields Development (KFD)	**National Research Foundation (NRF)**	Pretoria	SOUTH AFRICA
■	**IFFA: ANR**	Jean-Claude Rabier	M	Programme Director	**Agence Nationale de la Recherche (ANR)**	Paris	FRANCE
■	**IFFA: CASS**	Zhe Ji	M	Specially-appointed Researcher	**Chinese Academy of Social Sciences (CASS)**	Paris	FRANCE
■	**IFFA: ESRC** (WORKSHOP ORGANISING COMMITTEE)	Paul Rouse	M	Head of Environmental Change, Energy, Global Food Security and Water	**Economic and Social Research Council (ESRC)**	Swindon	UK
■	**ICSU**	Deliang Chen	M	Executive Director	**International Council for Science (ICSU)**	Paris	FRANCE
■	**ICSU**	Roberta Quadrelli	F	Science Officer	**International Council for Science (ICSU)**	Paris	FRANCE
■	**ICSU**	Patricia Ocampo-Thomason	F	Science Officer and Regional Offices Liaison	**International Council for Science (ICSU)**	Paris	FRANCE
■	**ICSU**	Leah Goldfarb	F	Science Officer	**International Council for Science (ICSU)**	Paris	FRANCE
■	**Belmont Forum: NERC**	Steven Wilson	M	Director: Science and Innovation	**Natural Environment Research Council (NERC)**	Swindon	UK
■	**Belmont Forum: NERC**	Helen Beadman	F	Secretariat Manager	**Belmont Forum Secretariat**	Swindon	UK
■	**Belmont Forum: NSF**	Maria Uhle	F	Program Director for International Activities, Directorate for Geosciences	**National Science Foundation (NSF)**	Washington DC	US
■	**Belmont Forum: U.S. Global Change Research Program**	David Allen	M	Program Associate for International Research Cooperation, U.S. Global Change Research Program (USGCRP)	**U.S. Global Change Research Program**	Washington DC	US
■	**ISSC Climate Change Design Project** (WORKSHOP ORGANISING COMMITTEE)	Asun Lera St Clair	F	Professor of Sociology	**University of Bergen**	Bergen	NORWAY
■	**UNESCO / ISSC Climate Change Design Project**	John Crowley	M	Chief of Section for Ethics of Science and Technology, Social and Human Sciences Sector	**UNESCO**	Paris	FRANCE
■	**ESF RESCUE**	Gísli Pálsson	M	Vice Chair	**Responses to Environmental and Societal Challenges for our Unstable Earth (RESCUE), European Science Foudnation (ESF); University of Iceland**	Reykjavik	ICELAND
■	**Policy-makers**	Lidia Brito	F	Director of Division of Science Policy & Sustainable Development	**Natural Sciences Sector, UNESCO**	Paris	FRANCE

■ scholars nominated by Regional Social Science Councils and selected by the Workshop Organising Committee
■ other representatives
■ apologies

	REPRESENTING	NAME		ROLE	INSTITUTION	CITY	COUNTRY
■	**NGOs**	Avanish Kumar	M	Chairperson	**Public Policy Management Area, Management Development Institute, Gurgaon**	Delhi	INDIA
■	**NGOs**	Sanjay Vashist	M	Director	**Climate Action Network South Asia (CANSA)**	Delhi	INDIA
■	**NGOs**	Alex Hannant	M	Head of Programmes	**Climate and Development Knowledge Network; LEAD International**	London	UK
■	**UNRISD**	Sarah Cook	F	Director	**Director, United Nations Research Institute for Social Development (UNRISD)**	Geneva	SWITZERLAND
■	**CROP** (CLACSO ON WORKSHOP ORGANISING COMMITTEE)	Alberto Cimadamore	M	Director	**Comparative Research Programme on Poverty (CROP)**	Bergen	NORWAY
■	**Belmont Forum: ANR** (WORKSHOP ORGANISING COMMITTEE)	Patrick Monfray	M	Programme Officer: Global Environmental Changes & Societies, Environment, Earth and Space	**Agence Nationale de la Recherche (ANR)**	Paris	FRANCE
■	**Belmont Report Panel**	Opha Pauline Dube	F	Senior Lecturer, Department of Environmental Science	**University of Botswana**	Gaborone	BOTSWANA
■	**CNRS: SSH Interdisciplinarity**	Sandra Laugier	F	Social Sciences and Humanities Deputy Director for Interdisciplinarity	**Centre National de la Recherche Scientifique (CNRS)**	Paris	FRANCE
■	**CIPSH**	Robert Halleux	M	Vice-President	**International Council for Philosophy and Humanistic Studies (CIPSH)**	Brussels	BELGIUM
■	**ESPA**	Paul van Gardingen	M	Director (ESPA)	**Ecosystem Services for Poverty Alleviation Programme (ESPA)**	Edinburgh	UK
■	**ISSC / ICSU / DFG**	Alexander Hansen	M	Advisor and Senior Research Officer	**DFG, ISSC, ICSU Integrated Science Initiative**	Paris	FRANCE
■	**ISSC Secretariat** (WORKSHOP ORGANISING COMMITTEE)	Heide Hackmann	F	Executive Director	**International Social Science Council (ISSC)**	Paris	FRANCE
■	**ISSC Secretariat**	Francoise Caillods	F	Senior Managing Editor of the WSSR 2010	**International Social Science Council (ISSC)**	Paris	FRANCE
■	**ISSC Secretariat**	Mike Murphy	M	Senior Executive Officer	**International Social Science Council (ISSC)**	Paris	FRANCE
■	**ISSC Secretariat** (WORKSHOP ORGANISING COMMITTEE)	Eleanor Hadley Kershaw	F	Project Coordinator	**International Social Science Council (ISSC)**	Paris	FRANCE
■	**ISSC Secretariat**	Orla Martin	F	Research & Admin Assistant	**International Social Science Council (ISSC)**	Paris	FRANCE
■	**ISSC Secretariat**	Amy Solar-Doherty	F	Intern	**International Social Science Council (ISSC)**	Paris	FRANCE
■		Claudine Wiley Cellier	F	Language Assistant	**International Social Science Council (ISSC)**	Paris	FRANCE
■		Charlie Welch	F	Facilitator	**Kingswood Plus Ltd.**	Dorset	UK

APPENDIX III: WORKSHOP PROGRAMME

ISSC-Belmont Forum Social Science Agenda-Setting Workshop

8-9 June, 2011

PROGRAMME

Tuesday 7 June

19:30
COCKTAIL RECEPTION
Restaurant, floor 7, UNESCO,
7 Place de Fontenoy, 75007 Paris

Wednesday 8 June

08:30 – 09:00
REGISTRATION
Reception area, UNESCO,
7 Place de Fontenoy, 75007 Paris

CO-CHAIRS: David Thorns, ISSC Vice-President for Information & Communications;
Heide Hackmann, ISSC Executive Director
—
09:00 – 09:40
INTRODUCTIONS
Salle (room) II, ground floor, UNESCO
All participants
—
09:40 – 10:00
WELCOMING REMARKS
ISSC: David Thorns, ISSC Vice-President
Belmont Forum: Patrick Monfray, Agence National de la Recherche (ANR), France; Steven Wilson, Natural Environment Research Council (NERC), UK
UNESCO: Pilar Alvarez-Laso, Assistant Director-General, Social and Human Sciences Sector
—
10:00 – 11:00
CONTEXT
Heide Hackmann, ISSC*: Introduction to and objectives of the workshop*
Patrick Monfray, ANR & Steven Wilson, NERC: *The Belmont Forum and Belmont Challenge*
Deliang Chen, International Council for Science (ICSU): *The Earth System Research Visioning Process, and new international Earth System Research for Global Sustainability (ESRGS) Initiative*
—
11:00 – 11:30 BREAK
—
CO-CHAIRS: Anantha Duraiappah, Executive Director, International Human Dimensions Programme on Global Environmental Change (IHDP); **Asuncion Lera St Clair,** Professor of Sociology, University of Bergen (from Aug 2011: Research Director for Climate Change & Development, Center for International Climate and Environmental Research - Oslo (CICERO), Norway)

11:30 – 13:30
FOCUS ON RESEARCH AGENDA SETTING

Adebayo Olukoshi, Director of the UN African Institute for Economic Development and Planning (IDEP), Senegal: *Changing Nature, Changing Sciences: Challenges for the Social Sciences*

Brief summary presentations of relevant inputs:
- **Deborah Rogers**, IHDP: *Results of an International Social Science Survey undertaken by IHDP in collaboration with ISSC and UNESCO*
- **Gísli Pálsson**, University of Iceland: *European Science Foundation (ESF) Response to Environmental and Societal Challenges for our Unstable Earth (RESCUE) Social Science and Humanities Task Force Paper*
- **John Crowley**, Chief of Division, Ethics of Science and Technology, Social and Human Sciences Sector, UNESCO: *UN Social Dimensions of Climate Change Paper*

—
13:30 – 14:45
LUNCH
Salle Segur, floor 7, UNESCO
—
14:45 – 16:00
FOCUS ON RESEARCH AGENDA SETTING (continued)
Salles (rooms): V (ground floor), VI, VII, VIII, VIIIbis (sous-sol (basement) -1), UNESCO

Breakout groups to address questions attached separately
—
16:00 – 16:30 BREAK
—
16:30 – 18:30
FOCUS ON RESEARCH AGENDA SETTING (continued)

Breakout groups continued
—
19:30 DINNER
Restaurant, floor 7, UNESCO

Thursday 9 June

09:00 – 11:00
FOCUS ON RESEARCH AGENDA SETTING (continued)
Salle (room) II, ground floor, UNESCO

Breakout groups report back to plenary session on their discussions regarding the research agenda
Open Discussion

—

11:00– 11:30 BREAK

—

CO-CHAIRS: **Andrew Kaniki**, Executive Director, Knowledge Fields Development, National Research Foundation, South Africa; **Paul Rouse**, Economic and Social Research Council, UK

—

11:30 – 12:15
FOCUS ON SOCIAL SCIENCE MOBILIZATION AND CAPACITY DEVELOPMENT
Brief summary presentations of relevant inputs:
- **Deborah Rogers**, IHDP: *Results of an International Social Science Survey*
- **Francoise Caillods**, ISSC: *Insights from the 2010 World Social Science Report*

—

12:15 – 13:30
LUNCH
Restaurant, floor 7, UNESCO

—

13:30 – 15:00
FOCUS ON SOCIAL SCIENCE MOBILIZATION AND CAPACITY DEVELOPMENT (CONTINUED)
Salles (rooms): II (ground floor), VI, VII, VIII, VIIIbis (sous-sol (basement) -1), UNESCO

Breakout groups to address the questions attached separately

—

15:00 – 15:15 BREAK

—

15:15 – 16:30
FOCUS ON SOCIAL SCIENCE MOBILIZATION AND CAPACITY DEVELOPMENT (continued)
Salle (room) II, ground floor, UNESCO
Groups report back to plenary session
Open Discussion

—

CO-CHAIRS: Alberto Cimadamore, Executive Director, Comparative Research Programme on Poverty (CROP); **Heide Hackmann**, ISSC Executive Director

—

16:30 – 17:15 CONCLUSION
RAPPORTEURS: **Frans Berkhout**, Professor of Innovation and Sustainability & Director, Institute for Environmental Studies (IVM), Director, Amsterdam Global Change Institute, Vrije Universiteit Amsterdam
Francoise Caillods, Senior Managing Editor, World Social Science Report 2010, ISSC
Ebrima Sall, Executive Secretary, Council for the Development of Social Science Research in Africa (CODESRIA)

APPENDIX IV: WORKSHOP POWERPOINT PRESENTATIONS

Download the PowerPoint presentations using the links below.
All PowerPoints are available on the ISSC website.
www.worldsocialscience.org/?page_id=1744

CONTEXTS:

- **Heide Hackmann**, ISSC: Introduction to and objectives of the workshop
  http://www.worldsocialscience.org/pdf/ISSC-BF_Workshop_Day_1_contexts_Heide_Hackmann.pdf
- **Patrick Monfray**, ANR & **Steven Wilson**, NERC: The Belmont Forum and Belmont Challenge
  www.worldsocialscience.org/pdf/ISSC-BF_Workshop_Day_1_contexts_Steven_Wilson_&_Patrick_Monfray.pdf
- **Deliang Chen**, International Council for Science (ICSU): The Earth System Research Visioning Process, and new international Earth System Research for Global Sustainability (ESRGS) Initiative
  http://www.worldsocialscience.org/pdf/ISSC-BF_Workshop_Day_1_contexts_Deliang_Chen.pdf

FOCUS ON RESEARCH AGENDA SETTING INPUTS:

- **Deborah Rogers**, IHDP: Results of an International Social Science Survey undertaken by IHDP in collaboration with ISSC and UNESCO
  www.worldsocialscience.org/pdf/ISSC-BF_Workshop_Day_1_inputs_Deborah_Rogers.pdf
- **Gísli Pálsson**, University of Iceland: European Science Foundation (ESF) Response to Environmental and Societal Challenges for our Unstable Earth (RESCUE) Social Science and Humanities Task Force Paper
  www.worldsocialscience.org/pdf/ISSC-BF_Workshop_Day_1_inputs_Gisli_Palsson.pdf

FOCUS ON SOCIAL SCIENCE MOBILIZATION AND CAPACITY DEVELOPMENT:

- **Deborah Rogers**, IHDP: Results of an International Social Science Survey
  www.worldsocialscience.org/pdf/ISSC-BF_Workshop_Day_2_inputs_Deborah_Rogers.pdf
- **Francoise Caillods**, ISSC: Insights from the 2010 World Social Science Report
  www.worldsocialscience.org/pdf/ISSC-BF_Workshop_Day_2_inputs_Francoise_Caillods.pdf

APPENDIX V: ACTUAL RESPONSES TO QUESTIONS ASKED DURING THE WORKSHOP

The following is a slightly edited and lightly organised list of the actual submissions to the questions raised during the workshop.

DAY I – Focus on Research Agenda Setting

WHAT ARE THE MOST COMPELLING URGENT AND USEFUL SOCIAL SCIENCE RESEARCH PRIORITIES IN RELATION TO GLOBAL ENVIRONMENTAL CHANGE AND THE BELMONT CHALLENGE?

Metapoints

- We (social scientists) need to have a common framework in which we examine the idea of the divide between social and natural sciences in order to work together as a group. We need to examine on one side the epistemology and idea of a unifying or meta-theory, and on the other hand, the role of multiple and diverse frameworks.
- There is also a need to develop common methodologies for inter and cross-disciplinary research.
- We must get clearer about where we want to go as a society. Specifically relevant is clarity around the social sustainability agenda, e.g. the equality movement.

Governance and institutions

- Building capacity at multiple scales (top down and bottom up approaches, including cross-cutting multinational institutions).
- Action oriented and participatory research to integrate public participation into decision-making and for informing policy at all scales.
- The collapse of the government has implications on the environment.
- Role of knowledge in policy making and decision making (including local knowledge).
- Ecological security vs. environmental security / how people and governments enhance the sustainability of environment.
- Environmental/climate refugees - human security. Legal aspects and governance issues related to the above.
- Power structures and their relationship to ecological degradation.

Cultural Diversity

- Diversity of local/regional perspectives, including cultural issues.
- Role of different value systems in individual and collective behaviour and decision making.

Equity

- Social and political repercussions of mitigation and adaptation initiatives.
- Social responsibility and ethics of social research.
- Differences in vulnerability at regional and local scales.
- Gender implications and environmental rifts.
- Green economy, equitable growth.

Research, Communication and Education

- Messaging and dissemination of research findings.
- How to engage meaning-making systems and value systems for global sustainability.
- There is the need of building a common language by decomposing the box of natural science -social sciences / develop a more comprehensive methodology for mutual communication.
- Research about how science works / what are the institutional barriers? How to facilitate more interactions and how to better prepare new generations of scientists?
- Linking social science with youth (future generations).

Market(s) and Global Change

- Clarification of concepts such as “development”, “sustainable development”, etc.
- Bioeconomics or ecological economics analysis for enriching policy making.
- Understanding drivers of consumer / human behaviour.
- Market and marketing influences on socio-environmental change / ideological domination of market.
- What are the repercussions of only exploring the environment from a market perspective? Should we take into account other perspectives?
- Study the relationship between the social movements and alternatives to market based development.
- Under what conditions have communities adapted in order to be sustainable?
- How to accelerate market and social transformation.

Methodology and other challenges

- Baseline data needed in some areas (mainly the “South”).
- Developing prediction capability in social science (Club of Rome, for example).
- Population growth challenge.
- History of adaptation, including archaeological perspectives.
- Philosophy, anthropology and sociology of science.
- Social models for society behaviour / is it possible to model everything in social sciences?

Capacity Building

- Social scientists need a level of competence about climate change. (a minimum knowledge)
- Both communities (natural science and social science) should regularly educate each other to support integration
- Education: curriculum development so appropriate social science knowledge on GEC reach a wide audience (including general public, policy).
- How to develop post-conventional consciousness in sustainability leaders and change agents. Significant research is still required to understand how to create learning environments that will catalyse deep development amongst sustainability leaders and unlock the capacities available to them at later stages of meaning making.

Reconceptualisation

- The social sciences need to do reflexive, depth work, to reinvent themselves to rise to the challenges of today. It is time to re-think the social sciences themselves so as to ensure they are prepared to respond to the anthropocene.
- The social sciences arose out of an historical imperative, in response to the real-world challenges of those days as well as the struggle for legitimacy and credibility (e.g. sociology arising as a response to the issues of modernity).
- But “what got you here won’t get you there.” New forms of social sciences may be needed, or new forms of interdisciplinarity, to respond to the crucial challenges we face (e.g. reframe the concept of production to look at the metabolic flow from the sun, through plants, animals, the soil and through to waste).
- A key area needing reconceptualisation is how do we measure value (e.g. progress, human wellbeing, etc.)? We must create and disseminate the new set of metrics for measuring the value that underlies global sustainability.
- Fundamental reconceptualisation of the issues will also help to resolve the existing disconnect between social and environmental policy, or strengthen the inter-relation between environmental issues and the political and geographical agenda.

Transformation Processes: How do we get there and how does change really happen?

- Individual transformation: How do we develop leaders and change agents for sustainability that have the capacities required to respond effectively to the intense complexity and ambiguity of GEC? What are the competencies required to cultivate change in self, others, and systems?
- Market transformation: How do we set up the conditions to support the development of existing markets into full sustainability? And what are the conditions required to foster that emergence?

- Social transformation: How does social transformation really work? What can we learn from the current and past social movements? What conditions can be put in place to foster large-scale social transformation toward sustainability?
- Communication transformation: How do we tailor our sustainability communications such that they resonate deeply with the various meaning-making systems, value systems, and worldviews present within any population, thereby cultivating the possibility for significant behavioural change?
- Process and Platform transformation: What are the processes and platforms needed to facilitate large-scale collaboration, innovation, knowledge transfer, and new value creation for global sustainability?

Uncategorised for Question 1

- Change the concept of production that is used in the economy by another concept of production that starts in the generation or not the raw materials and natural conditions for production. And ending the concept of waste disposal and its effects. [Note, the author – Hector Sejenovich – has specific details on this for fishing, forestry, hunting, agriculture, and petroleum production.]
- Value of environmental damage considering the damage the entire ecosystem and consistently lost the potential production (flora, fauna, air, soil, carbon sequestration, landscape water basin) and not just adding a few items considered chaotic.
- Concept of local identity of the population within the social structure and its impact on population mobility in relation to global change.
- Definition of GDP and national accounts without considering the accounts of the natural heritage as capital account maintenance in the national accounts methodology unchanged from 60 years ago when the variables to be computed have changed dramatically.
- Use as a planning tool for environmental impact review when processes are already decided for the investment instead of incorporating the environmental perspective from the beginning of the diagnosis of the situation to be changed.
- Maintain planning instruments that do not include participation from the beginning of diagnosis and then incorporate it with a great sense of membership consent and participation.
- Develop policy on natural resources without taking into account the heterogeneity of social actors that leads them to seek different objectives and therefore the stimuli that should provide for appropriate behaviour are very dissimilar.

WHAT ARE THE CRITICAL KNOWLEDGE GAPS IN SOCIAL SCIENCE RESEARCH WITHIN THE CONTEXT OF GLOBAL ENVIRONMENTAL CHANGE? WHICH IMPORTANT QUESTIONS ARE NOT YET BEING EXPLORED BY SOCIAL SCIENTISTS?

- Systems thinking: Modelling; Linking technology, knowledge and institutions.
- Comparative analysis: Increasing validity of knowledge.
- Making social science language more clear or consistent.
- We need to think about what we have before we talk about gaps. There is an enormous amount of work done already that is extremely relevant.
- We haven't studied the social movements that are actually happening or have happened in the world around social and environmental change. We need to study how people interpret what environmental change means to them.
- Need for equivalent long term data monitoring as what is being done in the natural sciences; long term monitoring of population and social changes
- Inter- and transdisciplinary research regarding multiscale human metabolism analysis for diagnostics and evaluation of alternatives in order to implement viable adaptation and mitigation actions against global change.
- The heterogeneous aspect of society on all levels of remediation and management is not taken into account.
- Social sciences should look at traditional practices. There is a lack of integration if local knowledge / science with existing (Western) knowledge, both on process and on capacity to do it (indigenous knowledge system).
- Need to research mechanisms of water trade and look at political mechanisms behind it, what works what does not. Economic mechanisms behind water scarcity/needs.
- Ethical issues in Global Environmental Change on the rise (e.g. ethical issues related to fair water trade, not only economic point of view).
- Ethics in research.
- Another research integrity issue concerns the integration (or lack thereof) of traditional knowledge.
- Human security.
- Risk assessment.
- How to bring about a green economy? How can social sciences make this happen; what that sort of economic and system change in consumption patterns would mean for society?
- Interaction between social science, markets, and the state, in the face of rapid economic change (e.g. transitions in socialist countries: what happens to people and institutions with such transformation?).
- The recognition of differences of social actors in their production practices and different cultures and these

differences embedded in his general characterisation.
– The incorporation of the environmental study for joint interdisciplinary teams where the social sciences play an important role but in league with the other sciences.
– Lack of recognition that all nature is socially mediated and that all social relations are in a medium with which they interact.

WHICH QUESTIONS NECESSITATE INTER- OR CROSS-DISCIPLINARITY, WITHIN THE SOCIAL SCIENCES AND BETWEEN THE SOCIAL SCIENCES AND OTHER SCIENTIFIC FIELDS (E.G. NATURAL SCIENCES, ENGINEERING, ETC.)?

– Social sciences need to work closely with humanities.
– Incorporate disciplines side by side, not social sciences just at the end.
– Modelling: validated w/ help from social sciences (map perception on changes seen), convert into political agenda.
– Anything related to the uptake of technology should involve the social sciences, especially incorporating local knowledge.
– Focus on problems or solutions.
– Integrate multiple disciplines and policy/community at beginning of research project.
– “contact points.”
– All of the questions identified necessitate an inter- or cross-disciplinary approach. We recognise that a single discipline alone is unlikely to be sufficiently adequate to provide the data required for formulating an effective response to these big questions.
– There are some good regional examples on strong inter-disciplinary work, such as the work Hector Sejenovich has done on Natural Resource Accounting.

WHAT DIFFERENCE WOULD IT MAKE TO HAVE DECISION MAKERS AT NATIONAL, REGIONAL OR INTERNATIONAL LEVELS LISTENING TO THE ANSWERS TO THE PRIORITY QUESTIONS DEFINED?

– It is indeed important to keep them in the loop and have them engaged.
– The concept of joint design and sharing refers to a closer relationship with decision makers and this would lead to an improvement no doubt. In general the design and production technology as well as appear as neutral as a result of a development also is not neutral. We should dump these techniques to improve the changes.
– Yes it’s crucial for implementation and production of useful knowledge.
– We can build this into our knowledge via “Frontier organisations” (which translate science into policy. For example: IPCC; national roundtable in Canada, IPBES…). There needs to be OWNERSHIP by key stakeholders.

- **Yes…**
  - ¬ When it comes to doing "strategic science" – that responds to urgent needs, it is very important to have decision-makers and users of the research involved in the co-design and co-production, including listening to the key questions defined.
  - ¬ However, scientists must be allowed to "get the science right" such that the methodology cannot be faulted, so that there is no loss of credibility.
  - ¬ Scientists, ultimately, are responsible to future generations and all of society, not just to policy makers and funding priorities.

- **No…**
  - ¬ It is also important to make the space for scientists to do research that they feel is important, regardless of what the political implications are. In the case of such "pure science" or "blue sky science," decision-makers and users of the research aren't needed in the co-design and co-production.

- **Shift the roles…**
  - ¬ Science needs to become the "third force" - next to politics and economics - in this decision-making process, and that should come via science insisting on that role and policy-makers allowing for that space. Science should be allowed to co-produce policy.
  - ¬ The big important questions should be framed together between science, policy, and implementers.

Uncategorised for Questions 3&4

KEY: I = social science and humanities and natural; S + S = integrated social science + humanities

- Evaluating/measuring progress and the good life / good society, measuring beyond GDP. (I)
- Relationship between production and consumption, evaluating growth/well-being and population. (I)
- Ecological/planetary boundaries and implications for socioeconomic scenarios. (I)
- Understanding behaviours and consumptions values: how behavioural change occurs as well as policy. [S +S]
- How power operates at global, international, national, local, and individual levels; power relations. [S +S]
- What international governance systems are needed to respond to the coming 'storm'—environmental limits, social conflicts, and global security? (I)
- Can common understanding of risk resilience and uncertainty be developed among both social and natural sciences? (I)
- Deeper understanding of what constitutes risk, resilience and uncertainty; and the different perceptions of these risks among different stakeholders? (I)
- What is relationship between inequalities (within and across) and global environmental change? How are inequalities (within and across) perpetuated? [S +S]
- How to communicate and take decisions in the face of emerging environmental risks? [S +S]
- Has science communication failed, and why? How do we change this? (I)

GIVEN ANSWERS TO THE ABOVE, HOW COULD THE SOCIAL SCIENCES REFRAME THE BELMONT CHALLENGE AND ITS ASSOCIATED PRIORITIES?

- Overarching framework which is questions 1, 2 and 3 will re-frame Belmont questions from social science perspective.
- A step change requires understanding how quality of life is measured? SS focuses on societal needs not just planetary boundaries, so its normative questions too.
- To create knowledge needed for action to cope with environmental changes, short-term and long-term
  - ¬ Integrated info on the state of the environment and society;
  - ¬ Impacts, both positive and negative; and the ability of people to adapt to or take advantage of these impacts.
- New priority foci: Urbanisation, Food security, Managed Landscapes, Cross-border issues, including water.
- The existing Belmont challenge and its priorities presume we already know what good development and progress is. It assumes that climate change is messing up our progress toward the MDGs. It is clear that there is a lot of research that shows that a different and far better future is possible, coming from the social sciences. The documents appear to be blind to that.
- The way they've framed the specific challenges in the document is far too specific. Much more could be brought in to open those questions up.

"Science needs to become the "third force" - next to politics and economics - in this decision-making process, and that should come via science insisting on that role and policy-makers allowing for that space. Science should be allowed to co-produce policy."

DAY II – Focus on Social Science Mobilisation and Capacity Development

WHAT ARE THE BARRIERS THAT PREVENT SOCIAL SCIENTISTS FROM BECOMING INVOLVED IN GLOBAL ENVIRONMENTAL CHANGE RESEARCH? HOW CAN WE OVERCOME THESE BARRIERS; WHAT TYPES OF INCENTIVES ARE NEEDED FOR SOCIAL SCIENTISTS TO DIRECT ATTENTION TO ENVIRONMENTAL ISSUES?

There are language limitations still to surpass in order to disseminate research outcomes and stimulate interactions among researchers.

- Lack of collaboration within the social sciences. Need long term / regional funding for collaborative research and developing partnerships.
- SS should be in charge or in lead of programmes or policy actions.

Barriers

- Disciplinary fragmentation and differences in language among social sciences disciplines and humanities – key thinkers and their associated theories are therefore fragmented.
- Framing of the research questions are usually from natural science point of view: e.g. Earth System science is remote i.e. doesn't attract social science.
- "Global" framing alienates some social scientists: Scale of functioning between the two are different e.g. social science tends to work at local – national to regional scales [e.g. to imagine environment as something separate form normal social life hence outside social science i.e. artificial alienation].
- Lack of involvement of the leading social sciences thinkers in GEC.
- Engagement of social science late or disproportionate representation of social sciences – their voices are drowned.
- Limited funding especially in developing countries.
- Weak networking and dissemination of research leading to duplication and inability to synthesis and scale up; failure to take advantage of synergies.
- Weak mentorship for emerging scientists.

Solutions

- Reframe research: Instead of Earth System science why not "social transformations and global change. "
- Creation of shared opportunities for social and natural sciences.
- Integrated framed research questions.
- Need periodic integrated global assessments – full integration of social science into global change assessments.
- A number of prestigious social science centres privilege the study of social conflicts seen without relation to other sciences. And undermine the seriousness of a little analysis that is not very well founded. As it is actually very difficult for a social scientist to carry out innovative research without personally working with a team in the field of climate change studies and environmental such are intended to be the marginalisation of science. I think the main impetus must come from prioritising the need to link theory with practice and require that projects be established with ties to change situations of conflict or environmental governance processes develop in a progressive membership also allow interdisciplinary teams.

WHAT ARE THE CHALLENGES FOR SOCIAL SCIENTISTS OF UNDERTAKING INTERDISCIPLINARY GLOBAL ENVIRONMENTAL CHANGE RESEARCH ACROSS THE SOCIAL, PHYSICAL, AND NATURAL SCIENCES? HOW DO WE BEST TACKLE THESE CHALLENGES?

- Have a very comprehensive framework to integrate research results coming out from different methodologies and research tools (quantitative / qualitative).
- People have their own questions. There is a problem of who sets the questions and who funds.
- Proposals should include a framework for capacity outcomes assessments.
- Reviewers of research proposals should better value interdisciplinarity of research proposals as well as North-South cooperation schemes. This might also apply to (main-stream) journals' article peer review.

Challenges

- Social scientists feel they are not taken seriously. Yet natural scientists are looking for social scientists, who lack confidence. In the end they do the research themselves.
- The scale of analysis (spatial and temporal) might differ.
- Being able to show that their research is significant and can make a difference and significant change.
- Proposals presented differently to an interdisciplinary problem.
- The output loses integration/not up to expectation.
- Peer review process for a chemistry and anthropology paper – how best do that?
- Connecting with Social movement/policy makers for practical concrete solutions.

Solutions

- Social scientists to invite natural scientists to join self framed research.
- Negotiate for common understanding on differences of operation, etc.
- Funders to design calls in such a way that they bring teams together to design programmes.
- Need for trust and integrity in peer reviewing process.
- Funding for co-integrated / co-produced knowledge.
- Cogeneration of knowledge: Demand driven kind of research addressing local but also global issues.

HOW CAN WE IMPROVE THE USE OF SOCIAL SCIENCE RESEARCH FINDINGS AND RECOMMENDATIONS BY POLICY AND DECISION MAKERS AT VARIOUS SCALES?

- Role of media to support a political agenda for global literacy on environmental change.
- Defining new competencies for researchers (especially emerging researchers built around: outreach, dissemination, influencing, communications etc.
- To engage in the right research that appeals to policy makers: Engage policy makers right from the beginning of the programme design.
- In communication – engage professional translators who translate science into policy (language).
- Take advantage of success stories in policy making.
- Target action research that reaches out to many communities to buy in policy makers for voting, etc.
- Capacity of policy makers to hear! Listen.
- Enhance the communication capacity of social scientists; there is a role for intermediate organisations here.
- Develop interesting SS questions: niches that can advance those disciplines e.g. growth and equality of life.
- Concrete integrated coproduction of knowledge.
- Get clear about who the target audience is and tailor the communication so it effectively reaches them. No jargon. Language must be accessible, succinct, clear, brief.
- Extra effort to create useful and practical outputs/products/tools from the research that support decision-making, forecasting, evaluating. If it isn't immediately useful, policy makers aren't likely to pay attention. Learn from the natural scientists and economists.
- Two general strategies being used: Direct: Work directly with policy makers; Indirect: Work with civil society and media who then pressures policy.
- Jointly reflect and design the research, so the relationship is established from the beginning.
- Networking events, to build relationships between policy makers and social scientists at local, national, int'l levels.
- Targeted publications in policy journals.
- Institution committed to publicising and target-marketing relevant social science research into current debates.
- Proactively make their capacities known to funders and policy makers; creating demand for social scientists' research.
- Leverage media and knowledge brokers like think tanks to promote the knowledge.
- Promote the use of social indicators and analysis of the situation due to climate change issues in particular sustainable development indicators that together enable ecological economics with these joint assessments and social sciences could join in specific territories.

WHAT ARE THE MOST URGENT CAPACITY NEEDS IN RELATION TO INCREASING THE PRODUCTION OF SOCIAL SCIENCE KNOWLEDGE RELEVANT TO GLOBAL ENVIRONMENTAL CHANGE?

- Do we need to increase the knowledge production capacity? Instead probably is needed to work through networks and spreading information and knowledge. A process in which the focus should be on where are we going rather on what we have now.
- There is a lack of understanding of the existing capacities, of what are the real issues of relevance. It is needed a new paradigm for capacity building in both, Natural Sciences and Social Sciences and Humanities. It is difficult to get an agreement on what capacities we need and to do what (including what we have now and what we might need; how people can be evolved; and how can we apply research outcomes). Search for common answers is a priority. But again, whose responsibility is the aforementioned? The exercise requires the identification of differences on capacities between North and South.
- Need research on behavioural science assessment.
- How to translate experiences and local knowledge into social scientific articles and data. Also in terms of managing and having infrastructure for information, and access to existing information (considering all the local-national contexts, for instance in the South). Data produced should be deposit in public access databases. Open sources could play an increasingly role.
- Long-term research work, coupled with long-term funding.
- Tailored “engagement strategies” for each government that are disseminated and used by all social scientists who interact with that government.
- Fund “sand pits” and “change labs” where social scientists and natural scientists come together to grapple on complex problems.
- Attract more youth to the field, providing more scholarships, especially for the South to support local infrastructure development.
- North South Divide. We need to build capacity in the global South. This means working at the same time at the individual, organisational and system level. Research institutions need to be supported in the South, and in regions that are likely to be affected by climate change, water problems. The objective is that research should essentially be produced by social scientists from the countries concerned.

WHAT DO WE NEED AT THE INTERNATIONAL LEVEL (IN TERMS OF FUNDING AND NETWORKING) FOR THIS SORT OF RESEARCH TO HAPPEN?

- New scientists interactions between North and South.
- Building intergenerational networks / connections between emerging researchers and established scholars and practitioners.
- Assessment of experiences already in process regarding interdisciplinary research programs, from institutions and international entities all the way to universities and researchers. The idea is to avoid overlapping.
- Consensus in multiple-scale regarding priorities on social sciences research.
- Correlation between building capacity and funding – keeping individuals nationally (block brain-drain).
- This is important at regional levels, in the North and the South. Scientists could play an important role in stimulating this process (talented researchers for non-sexy research areas can play key role) and the legal argumentation can be enforced taking in to account already signed agreements (such as the one on free access to information within the OECD).
- Funders need to change their behaviour. They can also lead and be proactive.
- Funding mechanisms to support diverse networks for international collaborations, including mechanisms for including young researchers, postgraduate students, priority to emerging themes, team work (trans- and inter-disciplinarity), etcetera.
- Dissemination of Existing knowledge/information in grey literature.
- Funding for repackaging /publication mentoring for local and international wide use.
- Open access publication.
- Funding – Enough funding, coordinated funding, funding questions that require integration of both social and natural sciences.
- Networking – support networks that engage both sciences; transfer skills for leveraging funding.
- Create a public global data base of social sciences work relevant to GEC. Epistemic community of practice from across disciplines working on a common issue.
- Recognition and rewarding system.
- The analysis of national and regional situation must mobilize students and provide opportunities for them to PARTICIPATE and generate a critical mass that will enable wider dissemination.
- What we need at the international level (in terms of funding and networking) for this type of research to happen? First, promote and support networks until it reaches a more developed participation must think that there is a very important social force represented by environmental citizens' assemblies are an important arm to promote change. Do not think only in the universities but in promoting a comprehensive and sustainable management of resources linked with science and technique. Knowledge that is linked to action and self-sustaining.

acknowledgements

The ISSC would like to thank all of the workshop participants for their attendance and their valuable input both during and after the event. We are also extremely grateful to the Workshop Organising Committee for their support and guidance, and to all those that took the time to comment on early drafts of this report.

Finally, the ISSC extends great thanks to the workshop sponsors for their generous support:

NATURAL ENVIRONMENT RESEARCH COUNCIL

E·S·R·C ECONOMIC & SOCIAL RESEARCH COUNCIL

AGENCE NATIONALE DE LA RECHERCHE ANR

INTERNATIONAL SOCIAL SCIENCE COUNCIL (ISSC)

The International Social Science Council (ISSC) is the primary international body representing the social, economic and behavioural sciences. Its mission is to advance their global presence, authority and capacities, bringing together and fostering knowledge exchange between social science researchers, funders and policy makers from across the globe.

Established in 1952 by UNESCO, the ISSC today is an independent non-governmental organisation, which has a wide and growing membership of international professional associations and unions, regional and national social science academies and research councils, and other organisations with major interests in the social sciences. The Council is governed by a General Assembly and an elected Executive Committee, and coordinated by a Paris-based secretariat.

The ISSC's main objective is to increase the production and the use of interdisciplinary, comparative social science knowledge in all parts of the world in order to contribute to solving global priority problems.

INTERNATIONAL SOCIAL SCIENCE COUNCIL (ISSC)
UNESCO, 1 rue Miollis, 75732 Paris Cedex 15, France
T +33 (0)1 45 68 48 60
issc@worldsocialscience.org
www.worldsocialscience.org

Photographs courtesy of Davide Rossi D'Ambrosio: www.dawide.com
Graphic design: Émilie Anseeuw

BELMONT FORUM

ISSC
international social science council

www.worldsocialscience.org