

## Glossary

### **Anthropocene**

A period in which human activities have become a significant, even dominant force impacting the functioning of the Earth system. It is suggested that this began with the onset of the Industrial Revolution, a point in time which coincides with the first signals of increasing global concentrations of carbon dioxide and methane, as measured in air trapped in polar ice. The impact of human activity has begun to equal the measurable impact of geological forces, in speed and intensity, creating a novel situation that poses new questions and requires new ways of thinking and acting.

[www.esf.org/fileadmin/Public\\_documents/Publications/rescue.pdf](http://www.esf.org/fileadmin/Public_documents/Publications/rescue.pdf)

### **Co-production of knowledge**

Processes by which scientific and societal actors negotiate how different sources of knowledge can be brought together into new and mutual understandings. Sustainable development requires knowledge that is integrated in appropriate ways with scientific and other forms of knowledge.

<http://spp.oxfordjournals.org/content/37/4/267.full.pdf>

### **Global environmental change**

Multiple, often interacting, environmental changes and biophysical transformations to the Earth's system of human and natural processes. They include climate change and changing trends in biodiversity, land-use, urbanisation, and changes in the oceans and are closely linked to processes of socio-economic and cultural globalisation.

[www.esf.org/fileadmin/Public\\_documents/Publications/rescue.pdf](http://www.esf.org/fileadmin/Public_documents/Publications/rescue.pdf)

### **Interdisciplinarity**

Interdisciplinary studies involve two or more academic disciplines with the same or different research paradigms, approaches, and methods which cross subject boundaries and integrate their knowledge in ways that result in new insights, knowledge, theories and methods, and solve common research questions. Interdisciplinary research might involve differing qualitative and quantitative methods and different analytical and interpretative approaches.

Evel, A. C., et al (2010), 'Defining and evaluating the impact of cross-disciplinary conservation research' *Environmental Conservation*, Vol 37: 4.

**Knowledge**

The way society and individuals apply meaning to experience; facts, information and skills acquired through experience or education; creating, selecting, developing and transforming information emerging from complex and ongoing processes. Knowledge is inextricably linked to the social, environmental and institutional contexts in which it is created and reproduced.

*[www.esf.org/fileadmin/Public\\_documents/Publications/rescue.pdf](http://www.esf.org/fileadmin/Public_documents/Publications/rescue.pdf)*

**Open knowledge system**

Knowledge generated from multiple sources (scientific, traditional, experience) and shared at every stage of its development. Problems and solutions are defined by all relevant stakeholders, not just researchers. An open knowledge system requires collective problem-framing, joint agenda-setting and a corresponding institutional framework. It also requires comprehensive peer- and stakeholder-review, broad and transparent metrics for research evaluation, good consideration of uncertainty and values, procedures to ensure that knowledge is 'placed in context', flexibility of research funding, cooperation of public and private organisations, and meaningful stakeholder engagement. New media and new forms of public participation and greater access to information, are crucial.

*[www.esf.org/fileadmin/Public\\_documents/Publications/rescue.pdf](http://www.esf.org/fileadmin/Public_documents/Publications/rescue.pdf)*

**Social change**

Significant alteration in the social order, functions, actions and interactions of a society. This may include changes in social institutions, social behaviours, or social relations at different levels of social organisation. The basis of social change typically involves a change in consciousness and belief systems, and/or the structural basis that guides or influences human behaviour.

**Socio-ecological systems**

Systems in which people and nature are recognised as being linked. They are increasingly understood as complex adaptive systems. Essential features of these complex adaptive systems – such as nonlinear feedbacks, cross-scale and strategic interactions, individual and spatial heterogeneity, and varying time scales – pose substantial challenges for modeling, understanding and management.

Levin et al. (2013) *Environment and Development Economics*, 2013, Vol. 18:02

**Social transformation**

Large-scale social change involving a shift in the collective consciousness of a society - local, state, national or global. Deep social transformation can occur as a result of a significant stimulus, as a result of aggregate small-scale changes and can be brought about intentionally. Scientific discoveries and technological breakthroughs have triggered social transformations throughout history, as have religious and royal edicts. They can require, as a precondition, or result in deep shifts in attitudes, values and belief systems.

*[http://en.wikipedia.org/wiki/Social\\_transformation](http://en.wikipedia.org/wiki/Social_transformation)*

### **Sustainability**

The capacity of a socio-ecological system to be maintained in conditions that allow for its continued functioning in perpetuity. In development and global environmental change contexts, it refers more specifically to the ability to maintain human well-being, social equity and environmental quality indefinitely, meeting current needs and desires while ensuring that future generations will still have coupled human-environment systems available to them capable of providing goods and services for their needs and desires, without degrading these systems in the long term.

[www.esf.org/fileadmin/Public\\_documents/Publications/rescue.pdf](http://www.esf.org/fileadmin/Public_documents/Publications/rescue.pdf)

### **Transdisciplinarity**

Studies which integrate academic research from disciplines with different research approaches as well as non-academic participants (such as public or private sector decision-makers and other stakeholders) to research a common goal and create new knowledge, new theories, and new options to solve societal problems. Transdisciplinarity combines interdisciplinarity with a participatory approach. All involved parties, academic and non-academic, define and develop the research goals and methods together to reach a common goal. This approach integrates disciplines and sub-disciplines and non-academic knowledge, to share power equally.

Evely, A. C., et al (2010), 'Defining and evaluating the impact of cross-disciplinary conservation research' *Environmental Conservation*, Vol 37: 4.

### **Transformational change**

A systems approach to social change and social transformation which attends equally to the inner life of human beings, human behaviour, and the social systems and structures in which they exist. Research that investigates transformational change can be disciplinary or multi-disciplinary and integrates a range of approaches and methodologies. It can be irreversible.

<http://transform.transformativchange.org/2010/06/robertgass/>

### **Vulnerability**

The degree to which a system is susceptible to, and unable to cope with, adverse effects, including those of climate change, climate variability and extremes. It is a function of the character, magnitude, and rate of climate change and variation to which a system is exposed, and of its sensitivity and adaptive capacity.

[www.ipcc.ch/ipccreports/tar/wg2/index.php?idp=22](http://www.ipcc.ch/ipccreports/tar/wg2/index.php?idp=22)

### **Wicked problems**

Large and enduring policy dilemmas in which multiple and compounding risks and uncertainties combine with sharply divergent public values to generate contentious political stalemates; wicked problems in the environmental arena typically emerge from conflicts over natural resource management and the prioritisation of economic and conservation goals more generally, typically combined with imperfect scientific knowledge.

Balint, P.J, et al. (2011), 'Wicked Environmental Problems: Managing Uncertainty and Conflict'. Washington DC: Island Press.

The International Social Science Council (ISSC) is an independent non-governmental organisation established by UNESCO in 1952. It is the primary body representing the social, economic and behavioural sciences at an international level. Our mission is to increase the production and use of social science knowledge for the well-being of societies throughout the world.

The ISSC is a membership-based organisation governed by a General Assembly and an elected Executive Committee. Our members include international professional associations and unions, regional and national social science research councils and academies, universities and institutes with major interests in the social sciences.

The Paris-based Secretariat manages a dynamic portfolio of activities aimed at strengthening the social sciences to help solve global priority problems and secure a sustainable future for all.

The ISSC works to:

- identify and mobilise resources for international research priorities
- facilitate research collaborations across regions, disciplines and scientific fields
- foster innovative talent and build social science research capacities
- provide access to global social science expertise, resources and networks
- connect research, policy and practice

The World Social Science Report is one of the ISSC's flagship activities. The Council also convenes a World Social Science Forum every two years. These events provide a global platform for researchers, policy makers and other stakeholders to debate topics of world significance, and to determine future priorities for international social science. The World Social Science Fellows Programme seeks to foster a new generation of globally-networked research leaders to collaborate on addressing global problems with a particular relevance for developing countries.

*Strengthening the social sciences to help solve global problems*

*[www.worldsocialscience.org](http://www.worldsocialscience.org)*



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