IN-BETWEEN METRICS AND GLOBAL ENVIRONMENTAL ASSESSMENTS: VALUING ENVIRONMENTAL SCIENTISTS AND VALUING ENVIRONMENTAL KNOWLEDGE

Thomas Franssen
Centre for Science and Technology Studies (CWTS)/Leiden University, The Netherlands

Anne Beaulieu
Knowledge Infrastructures Department, Campus Fryslân, University of Groningen, The Netherlands

Esther Turnhout
Science, Technology and Policy Studies, University of Twente, The Netherlands

Abstract:
What is ‘good’ environmental knowledge? And what is a ‘good’ environmental scientist? These two questions are recurrently asked in assessments of environmental knowledge conducted by the IPCC or IPBESS, and assessments of environmental scientists by funding bodies, in yearly appraisals or national research evaluations like the UK REF. These assessments are fundamentally entangled. Beliefs about what it means to be a good environmental scientist shape what environmental knowledge is produced and how assessments of environmental knowledge are done (Lahsen and Turnhout 2021; Beaulieu 2022). And vice versa, assessments of environmental knowledge can also shape research priorities and change ideas about what good environmental knowledge is and what good environmental scientists do (Turnhout et al. 2014).

These assessments processes have much in common: they are both structured by performance metrics and indicators, they are mediated by knowledge infrastructures, and they are commonly criticized for the narrowness of the dominant valuation logic. They are also condemned for the way they undervalue or ignore indigenous and local knowledge, and for undervaluing research that is not published in high impact journals or aimed at societal stakeholders. Another recent trend that connects these is the assessment of universities and university departments based on their contribution to tackle environmental crises, specifically with reference to the Sustainable Development Goals.

At the same time, the assessment of environmental scientists and environmental knowledge are conducted for different purposes, and at times, draw on different value registers and valuation logics. Moreover, they are studied in different branches of STS, including those that focus on the epistemology of science, the science-policy interface and on research evaluation. The aim of this panel is to bring these into conversation.

This panel explores the similarities, differences and entanglements of assessments of environmental knowledge and assessments of environmental scientists, to learn more about 1) the metrics and indicators embedded in knowledge infrastructures 2) what they highlight and ignore, 3) how this affects epistemological and ontological (in)justice, and 4) how scientists, institutions and infrastructures navigate between divergent valuations.

We are in particular interested in the following topics:

The development and use of performance metrics and indicators is supported and mediated by knowledge infrastructures. Assessments of scientists often rely on scholarly databases such as the Web of Science and Scopus, which cover only a part of all scholarly output. Environmental
assessments similarly draw on particular knowledge infrastructures, with their own limitations. How do knowledge infrastructures mediate assessments?

How are such emerging forms of assessment shaped and relate to established assessment processes? Which strategies of resistance, circumvention, corruption or extension of such assessment processes are employed in response to narrowing or broadening assessments of environmental knowledge and environmental scientists?

If we need better knowledge for sustainability, how can we rethink research and assessment infrastructures so that they support knowledge production for liveable futures? Which experiments or pilots already exist that go in this direction?

And finally, which possibilities are there for transforming assessments, to move towards more inclusive or grounded knowledge, and to decolonize environmental science?

**Key words:**
environmental assessment; valuation studies; infrastructure