

Innovative Session on Knowledge Cumulation in ESG Research at the 2021 Earth System Governance Conference, Bratislava

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Research in environmental governance, and in particular within the earth system governance (ESG) community, aspires to be both scientifically sound and policy-relevant, (Biermann 2007, 2012). For scientific relevance and progress, knowledge needs to cumulate, and arguably, this also facilitates its societal relevance. Indeed, if academic research is to inform policy on “what works”, it has to deliver trusted evidence (Nutley *et al.* 2019). Hence, the current ESG Science Plan explicitly states that ESG research aims “to provide evidence for robust decision-making” (Burch *et al.* 2018, p. 88). – But does it?

A debate appears to be emerging on the ways in which environmental governance research cumulates to actually provide such robust, policy-relevant evidence. It has been argued that sustainability science does not yet produce the sort of cumulative knowledge needed for political decision-making, because of, *inter alia*, repetitive research, incompatible datasets, and the tendency to publish in small units (Pauliuk 2020). In a recent opinion piece, we have made the case that environmental governance research, by and large, is not overly good at producing cumulative knowledge (Newig and Rose 2020). We argue that the topics, approaches, concepts, terms, geographies, research questions and methods of environmental governance research are so diverse that research often occurs in parallel universes, with a bulk of publications speaking past each other. Instead, we argue in our 2020 opinion piece that in order to mature and become a research community that is also recognised by policy-making, greater collaboration on shared research agendas will be essential. Such collaboration needs commonly shared goals, methods, theoretical approaches, frameworks of variables, datasets, and so on.

At the same time, the diversity of research strands, epistemologies and researchers within the ESG community is certainly one of its major assets. The community’s interdisciplinary nature ensures that the community does not become encapsulated in a narrow discourse, as for example mainstream economics has been criticised for.

This innovative session seeks to bring together researchers from the ESG community that share a common interest in the debate on knowledge cumulation, its prospects, opportunities, current diagnoses, limits and pitfalls, as well as in building institutions that facilitate a more “cumulative research culture” without compromising epistemic diversity. While this session is linked to an initiative to start an ESG Task Force on Knowledge Cumulation, everyone is invited to participate regardless of their interest in taking part in such an initiative.

In the first part of this session, we will have around five short (around 5-7 mins) inputs on different aspects of knowledge cumulation to facilitate meaningful discussions. These may cover topics such as epistemic prerequisites and limits of knowledge cumulation; methods of knowledge cumulation; best practice examples of knowledge cumulation; policy makers’ perspectives on knowledge cumulation as evidence production; and open science for knowledge cumulation. For topics that might be covered, see <https://www.earthsystemgovernance.org/research/task-force-on-knowledge-accumulation>.

In the second part of the session, we will draw on those inputs to jointly identify “hot topics” of knowledge cumulation that are either particularly disputed and/or relevant and urgent in the ESG community. Moreover, we will identify and prioritize suitable ESG topics and research questions on which knowledge should be cumulated for the sake of scientific progress and/or policy needs. Depending on the number of participants, we will discuss and document these topics in the plenum or in online breakout sessions, employing digital collaboration tools for identifying and ranking topics. The results will feed into the initial meeting of the Task Force initiative on Knowledge Cumulation on the taskforce meeting day (on 10 September 2021 at 1.30 p.m. CET, also as a virtual event).

Cited literature

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- Nutley, S., Boaz, A., Davies, H. & Fraser, A., 2019. New development: What works now? Continuity and change in the use of evidence to improve public policy and service delivery. *Public Money and Management*, 39 (4), 310-316.
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