The drawbacks of science-policy interfaces and possible ways forward

Eszter Kelemen, ESSRG Nonprofit Kft & Institute for Sociology, Centre for Social Sciences, Budapest, Hungary

Summary

The lack of meaningful responses by governments to the coupled socio-economic and ecological crisis of today indicate that science-policy interfaces – despite getting more and more well-known and respected – face significant challenges informing and influencing government action and policy trajectories. This contribution shares some reflections from a three-years long case study research which analysed and compared three biodiversity-related science-policy interfaces. First, the main challenges identified in the case studies are explained and corroborated with literature. Then, three potential ways forward are discussed from a critical perspective. Capacity building and structural or procedural reforms to science-policy interfaces are often mentioned in the literature, and examples for such interventions are already known. This contribution argues, however, that these reforms cannot lead to a significantly improved policy impact of science if governance processes, and political decision-making remains the same. Not only should science-policy interfaces be formally built into the decision-making process, but equally important is to rethink and make transparent who is involved in decision-making, and to critically reflect on scientists' role and value commitments.

Long abstract

Science-policy interfaces (SPIs) – the formalized and institutionalized platforms to inform policy with the best available scientific knowledge – are working in many different sectors and at various decision- making scales from the local to the national and the global. They focus on key vulnerabilities within our societies in the long- and short-term, such as the threats posed by climate change, biodiversity loss, water management, or disease vectors. However, recent trends, and the lack of meaningful responses by governments to the coupled socio-economic and ecological crisis of today indicate that SPIs face significant challenges informing and influencing government action and policy trajectories (Karcher et al. 2021). Does this mean that the main objectives of SPIs to contribute to better policy decisions towards more sustainable and just outcomes are compromised? Can the current SPI structures and processes be amended to resolve the challenges faced, or shall we radically rethink how science, policy, and society could work together? This contribution seeks answers to the above questions by sharing the results of a three-years long research project.

A research project[1] was initiated in 2018 to investigate how science-policy interfaces work, and whether and how they can contribute to an increased legitimacy of science in our current post-truth world. Biodiversity was selected as the main policy context, and three case studies were identified for in-depth analysis which operate at different scales: the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES); Eklipse, the Europe-wide science-policy mechanism to support biodiversity-related decisions; and the Hungarian national ecosystem services assessment project. Document analysis, semi-structured interviews, and participatory observations served as the main source of empirical data, which were qualitatively analysed in an interpretative framework. The presentation aims

[1] The research was supported by the Bolyai János Research Scholarship of the Hungarian Academy of Sciences.

to synthesise and critically reflect on the major findings of this research, without providing an in-depth description of the studied cases.

Lack of time and resources devoted to science-policy interactions, lack of common language and ineffective communication, internal structures and processes that create hierarchy and limit co-creation across diverse fields of knowledge are just some of the commonly reported challenges of SPIs (Kelemen et al. 2021). On top of these, false expectations on both sides (e.g. scientists considering policy-making as a rational process, and policy-makers expecting consensual and unanimous results based on a normal science approach) shade the wicked nature of most policy problems, and therefore limit the opportunities for adaptive, non-linear problem-solving where values and stakes are transparent and negotiated. Three main intervention areas have been identified as potential ways forward. First, to level off the field for different knowledge holders to take an active part, we need to increase capacities of scientists and policymakers both at the individual and the institutional level (Gustafsson et al. 2020). Second, to remove the structural barriers that limit the effectiveness of SPIs, we need to improve the existing structures and processes by focusing more on the true co-creation and (de)politicizing the crisis (Montana 2019). Third, since capacities and improved SPIs will not lead to better decisions until governance remains the same, transforming the governance system is necessary (Visseren-Hamakers et al. 2021). Not only should SPIs be formally built into the decision-making process, but equally important is to rethink and make transparent who is involved in decision-making, and to accept that scientists themselves must be political to contribute to solving social and environmental vulnerabilities.

References

Karcher, D.B., Cvitanovic, C., Colvin, R.M., van Putten, I.E. and Reed, M.S., 2021. Is this what success looks like? Mismatches between the aims, claims, and evidence used to demonstrate impact from knowledge exchange processes at the interface of environmental science and policy. *Environmental Science & Policy*, *125*, pp.202-218.

Kelemen, E., Pataki, G., Konstantinou, Z., Varumo, L., Paloniemi, R., Pereira, T.R., Sousa-Pinto, I., Vandewalle, M. and Young, J., 2021. Networks at the science-policy-interface: Challenges, opportunities and the viability of the 'network-of-networks' approach. *Environmental Science & Policy*, *123*, pp.91-98.

Montana J. 2019., Co-production in action: perceiving power in the organisational dimensions of a global biodiversity expert process. *Sustainability Science.* 14(6), pp.1581-91.

Visseren-Hamakers, I.J., Razzaque, J., McElwee, P., Turnhout, E., Kelemen, E., Rusch, G.M., Fernández-Llamazares, Á., Chan, I., Lim, M., Islar, M. and Gautam, A.P., 2021. Transformative governance of biodiversity: insights for sustainable development. *Current Opinion in Environmental Sustainability*, *53*, pp.20-28.