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"Reconcile land system changes
with planetary health"

Are science-policy-society dialogues on climate change, biodiversity, and agri-food systems aligned?

Sundus Saleemi[1], Anette Ruml [2]

[1] *Leibniz Centre for Agric. Landscape Res. (ZALF), Germany*
[2] *German Institute of Global and Area Studies,*

Abstract

Climate change, biodiversity loss, and unsustainable agri-food systems are interconnected global challenges. Despite growing scientific evidence highlighting the need for integrated responses, policy processes often continue to address these issues in isolation, governed by fragmented institutional mandates and narrowly defined sectoral priorities. This siloed approach is mirrored in the science-policy interfaces that inform decision-making, limiting the potential for the co-creation of holistic and transformative solutions. Fragmented science-policy interfaces limit the potential for integrated, sustainable solutions. This paper investigates how science-policy dialogues at the international and European levels address these interlinked challenges. We analyse whether, and to what extent, these dialogues foster cross-thematic integration, interdisciplinarity, and cross-policy engagement. To this end, we develop a framework based on four criteria: (1) cross-thematic scope (addressing climate, biodiversity, and food systems), (2) interdisciplinarity (integration of diverse scientific disciplines), (3) transdisciplinarity (inclusion of non-academic stakeholders), and (4) supra-transdisciplinarity (engagement across interlinked policy domains). We apply this framework to publicly available documents—such as summaries for policymakers, reports, and press releases—from key international and European-level dialogues. The documents were thematically coded using MAXQDA to identify patterns in narrative framings, stakeholder inclusion, and the degree of policy integration. Our analysis reveals that while some dialogues increasingly acknowledge the interlinkages among climate change, biodiversity, and agri-food systems, substantial gaps remain. Many processes still operate within disciplinary or institutional silos, with limited coordination between sectors. This fragmentation hampers efforts to co-develop coherent policies We argue that strengthening inter- and transdisciplinary science-policy interfaces is essential for more effective, inclusive, and integrated governance. By identifying convergences and divergences across major dialogues, this paper contributes to the design of better-aligned, knowledge-informed policies that address multiple global crises simultaneously.

Keywords: Agri-Food Systems, Biodiversity , Climate Change, science-Policy Dialogues

Contact Address: Sundus Saleemi, Leibniz Centre for Agric. Landscape Res. (ZALF), Eberswalder str. 84, 15374 Müncheberg, Germany, e-mail: sundus.saleemi@zalf.de