

COMMENT OPEN



An international panel for ocean sustainability needs to proactively address challenges facing existing science–policy platforms

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Recent calls for an International Panel for Ocean Sustainability (IPOS) to provide consensus-based science advice for global ocean sustainability appeal to the successes of global science–policy platforms, specifically the Intergovernmental Panel on Climate Change (IPCC), the Intergovernmental Science–Policy Platform on Biodiversity and Ecosystem Services (IPBES), and the World Ocean Assessment (WOA)¹. A new IPOS may facilitate global ocean sustainability, but only if it proactively addresses the challenges facing existing international science–policy platforms—namely representation, accountability, and politicization.

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The first challenge an IPOS platform would need to address is concerns and questions about whose voices define problems and count towards consensus². No existing international science platform has been able to avoid the problem of colonial, racial, and gender bias in their makeup^{3–7}. Science–policy platforms now have stated commitments to diversity and inclusion⁷, yet, the performance of such platforms routinely underdelivers on commitments to inclusivity^{3–7}. For example, recent reports on the composition and input into the IPCC suggest it is a body systemically biased demographically towards men from Europe and North America (particularly the USA and UK), dominated by individuals from a select few institutions, and trained in certain disciplines (such as physical and applied sciences, as well as economics) with little involvement from the humanities and critical social sciences^{4,5,8}. Research into the composition of select working groups within science–policy platforms suggests that “consensus” is largely based on the input of specific individuals with an established history in a given platform who dominate co-authoring networks⁸.

Capacity restrictions may fuel biases in representation. For example, the WOA has relied extensively on volunteer efforts, limiting input to those who can afford and are privileged to contribute. Systemic historic discrimination and oppression mean that economic status, race, gender, and geography correlate, and ensuring inclusion by underrepresented groups will require the adequate capacity to promote it. If consensus is biased towards dominant individuals, disciplines, or regions, this narrows how issues are framed and will impact the legitimacy and uptake of conclusions (which has affected both IPBES⁹ and IPCC⁸). For example, questions emerged about the legitimacy of the consensus reached from the IPCC Fifth Assessment Report, which may have contributed to the reluctance of certain governments to approve specific conclusions since it did not necessarily reflect the views of experts from particular countries⁸. A body such as an IPOS would need to comprehensively address the issue of unjust and inequitable representation head-on and at the outset.

A second challenge is to avoid being accountable to a culture of science that enacts and reproduces the limitations and biases

already presented^{10,11}. The kind of science typically recognized by science–policy platforms caters to a culture of prestige established through historical European class systems and disproportionately represents white and Western scholars and their values^{10,11}. Such science cultures have been criticized for emphasizing fundamental research with restrictive policy relevance and under-emphasizing research that specifically explores the effectiveness of policy interventions^{11,12}. These critiques of misaligned accountability catering to scientists rather than policymakers have also been made against specific science–policy platforms^{4,7,12}. While these platforms are celebrated within the narrow demographic groups of science, from a policy perspective, it is questionable if they have reached their potential in helping to realize climate and environmental policy to stem the problems they have documented.

A third challenge reflects the fact that existing science–policy platforms claim political neutrality while making value judgments with policy repercussions. This juxtaposition has raised questions about their credibility and legitimacy, affected the uptake of their work, and led to criticism for promoting (whether intentional or not) particular policy prescriptions^{13,14}. For instance, choices of specific research questions and analytical frameworks arise out of particular ways of understanding the world and therefore align with certain policy choices and discount others (such as viewing climate disaster through the lens of climate change and therefore emphasizing greenhouse gas mitigation rather than highlighting social and infrastructural vulnerability and exploring adaptation)¹³; these decisions are inherently political and shape or limit discussion of subsequent policy decisions^{13,14}. Therefore, any efforts to bridge the science–policy boundary require addressing reflective questions about the roles of the scientists involved in policy issues and measures to address the politicization of science¹⁵.

How could a hypothetical IPOS platform learn from previous science–policy platforms to address equitable and sustainable ocean futures? We propose, first, that systemic forces that promote biases (e.g., colonial, racial, and gender-based biases) must be confronted and mitigated before the platform takes

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shape and not retroactively considered. Engagement with scholars in critical race studies, feminist and queer studies, science and technology studies, and post-colonial studies—especially from underrepresented groups—can help. This includes ensuring that there are enabling environments for underrepresented voices to contribute fully—including travel, preparation, and communication.

Second, instead of claiming consensus-based only on representation from prestigious scientists, the platform should clearly assess the state whose values, framing, and problems are represented by the platform and ensure it matches the goals of the policies it is supposed to inform (such as the Sustainable Development Goals focus of “leave no one behind”). We do not claim to represent the voices of the politically marginalized but are comfortable in claiming that scientists predominantly from the Global North and Western nations cannot accurately reflect global concerns, and historical scientific practices attempting to do so are often patriarchal and entrench the marginalization, socialization, and oppression that causes and perpetuates environmental impacts¹². Further, we suspect efforts to de-politicize science will fail since science, in practice, is inherently political. Instead, we recommend that the platform be explicitly political, state whose interests it is meant to serve, and use tools such as policy field analysis (which outlines the interactions between decision-makers, decision-support, and beneficiaries) to align the platform with political goals¹⁶. Our third recommendation is that the platform’s assessment should consider the potential unintended political effects of its work, especially as they affect marginalized or underrepresented groups. Any call to consensus must be met by a rigorous examination into the legitimacy of such a claim or be properly labeled a limited consensus.

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G.G.S. and Y.O. developed the initial arguments, and G.G.S. wrote the initial draft of the paper. All authors contributed to the development and refinement of the ideas and the writing for the final version. All authors reviewed the paper.

COMPETING INTERESTS

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