THE NEW INSTITUTE

GOVERNING THE PLANETARY COMMONS

BACKGROUND PAPER

SUMMARY

This project builds on a recent proposal by an interdisciplinary group of leading scientists to redefine the global commons and to recognize Earth's large biophysical systems that provide Earth system resilience and stability as "planetary commons".[1] Rising risks of triggering Earth system-wide, irreversible, and unmanageable impacts affecting everyone lead to the conclusion that the global commons must be redefined to include not only globally shared geographic regions, but also the large biophysical systems that provide functions regulating the resilience and state, and therefore liveability, on Earth. This requires a fundamental shift from a focus on governing only shared resources beyond national jurisdiction (global commons), to one that secures critical functions of the Earth system irrespective of national boundaries (planetary commons). Assuming the planetary commons could provide a new paradigm for governing critical Earth system functions, the question that arises is: *how should the planetary commons be governed in order to transition to a socio-ecologically responsible and resilient future?* The principal aim of this project is to answer this question by designing a comprehensive framework for governing the planetary commons.

PROBLEM STATEMENT

The Anthropocene

Unsustainable anthropogenic pressures have pushed us out of the Holocene and into the Anthropocene epoch.[2] Several studies suggest we face a planetary emergency,[3] while other studies highlight the multiple patterns of global injustice that accompany the planetary emergency[4] and the serious challenges posed to global governance to protect the functions of Earth's biophysical systems in ways that ensure planetary resilience and multi-species justice for present and future generations. With increased planetary scale pressure on the Earth system, we will have to better secure the core functions of the Earth system that regulate planetary resilience.

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[1] J. Rockstrom, L Kotzé, S Milutinović, F. Biermann, V. Brovkin, J. Donges, J. Ebbesson, D. French, J. Gupta, R. Kim, T. Lenton, D. Lenzi, N. Nakićenović, B. Neumann, F. Schuppert, R. Winkelmann K. Bosselmann, C. Folke, W. Lucht, D. Schlosberg, W. Steffen and K. Richardson K. Planetary Commons: A New Approach for Governing Critical Earth System Functions in the Anthropocene. (Under review in Proceedings of the National Academy of Sciences of the United States of America).

[2] P. J. Crutzen, Geology of mankind. Nature 415, 23 (2002).

[3] Eg. A. D. McKay et al., Exceeding 1.5°C global warming could trigger multiple climate tipping points. Science 377(6611), eabn7950 (2022).

[4] P. Kashwan, F. Biermann, A. Gupta, C. Okereke, Planetary justice: Prioritizing the poor in earth system governance. Earth System Governance 6, 100075 (2020).

The global commons

The global commons framework is an approach that aims to protect the global environment and that underpins the inter-state governance of some shared open access resources lying beyond national jurisdictions. Four global commons have been identified: the oceans and deep seabed, outer space, Antarctica, and the atmosphere.[5] The global commons framework remains the closest example of global governance where multiple states have agreed to govern some, but not all, large elements of the Earth system, namely parts of the geosphere (deep seabed), hydrosphere (global oceans), cryosphere (Antarctica), and the atmosphere, whilst largely omitting the biosphere and including outer space beyond the Earth system.

Despite their potential to be governed as collective elements of the Earth system, there are several concerns related to the purpose, efficacy, and continued usefulness of the global commons as they are defined and governed today. A main concern is that the global commons have been designed within the context of the Holocene to regulate resource access and use, geopolitical interests, and environmental protection under assumptions of a stable Earth system and abundant resources to sustain life indefinitely.[6] Yet, it is now clear that our Holocene- premised institutions and modernist episteme are ill-equipped to better understand and address worsening Anthropocene predicaments.[7] In the Anthropocene, the boundaries between humans and non-humans have blurred, the world has become increasingly telecoupled through flows of energy, materials, and information, and planetary risks have become globally networked through interacting planetary boundaries. More worryingly, there is also a very real possibility of a human-induced mass extinction on Earth, the potential for the loss of Earth system resilience, and a host of uncertainties that go to the core of existence of all life on Earth in an anthropogenically altered, human-dominated Earth system. The global commons seem unable to address this existential threat.

In short, the legal and political construct of global commons is unable to recognize and embrace Earth's interactions and feedbacks and thus cannot fully address the many Earth system governance challenges of an interlinked, continuously changing, and disrupted planetary system in ways that are fully inclusive, democratic, representative, and ecologically responsible. This requires a fundamental shift from a focus on governing only shared resources beyond national jurisdiction (global commons) to one that secures critical functions of the Earth system irrespective of national boundaries (planetary commons).

The planetary commons

As a response to these challenges and concerns, the need for a new planetary governance paradigm for governing Earth's large biophysical systems that provide Earth system resilience and stability has been recognised by a leading interdisciplinary group

[5] S. J. Buck, The Global Commons: An Introduction (Island Press, Washington DC, 1998).
[6] J. S. Dryzek, Institutions for the Anthropocene: Governance in a changing Earth system. Br. J. Polit. Sci. 46, 937-956 (2016).
[7] V. Galaz, Global Environmental Governance, Technology and Politics: The Anthropocene Gap (Edward Elgar, Cheltenham, 2014).

of scientists in 2023.[8] We identified and defined a new category of "planetary commons" that are informed by the context of the Anthropocene and its planetary emergency. The basic proposal is that the planetary commons must safeguard critical Earth system functions that regulate the stability of the planet and keep its resilience intact; create responsibilities and stewardship obligations to safeguard planetary resilience; avoid crossing tipping points; and ensure a just world for everyone, now and in future.

The planetary commons include all the biophysical systems and processes that regulate the state of the Earth system and keep the Earth system in a resilient and habitable state as close as possible to Holocene conditions for the benefit of all life on Earth. Examples of these systems are: i) large systems such as the atmosphere, the oceans, land, the biosphere, and the cryosphere; ii) smaller sub-systems that manifest as tipping elements such as the Greenland Ice Sheet and the Atlantic Meridional Overturning Circulation; and iii) the most down-scaled systems such as the Polar Jet Stream and the world's peatlands and wetlands. Some of these commons lie in areas beyond national jurisdiction, while others, such as the Amazon Rainforest, lie within national borders of states and are shared by several states.

The planetary commons proposal draws on the strengths and momentum of ground-breaking concepts and visionary research that members of this group have developed, including: the planetary boundaries theory,[9] tipping points,[10] socio-ecological systems theory,[11] planetary justice and democracy,[12] Earth system governance,[13] and Earth system law.[14] The planetary commons proposal offers a radical alternative to the existing path-dependent, unambitious, undemocratic, northern-biased, and ultimately *failing*, global environmental governance framework.

Governing the planetary commons

Declaring the planetary commons is one thing, designing a comprehensive governance framework to effectively govern them is another, arguably more complex and critically important matter that is directly related to and relevant for issues typically raised within the domain of democracy discourse. For example, implementing this governance system will likely challenge barriers of state sovereignty and self-determination, deeply vested corporate interests, global power inequalities, as well as demarcation complexities that differ from the existing global commons and global environmental governance arrangements. There will also be concerns around increasing stakeholder involvement and effective representation of marginalized interests in the designation and governance of the planetary commons. A related matter will be how the planetary

[8] Ibid.

[9] W. Steffen et al., Planetary boundaries: Guiding human development on a changing planet. Science 347(6223), 1259855 (2015); J. Rockstrӧm et al., Planetary boundaries: Exploring the safe operating space for humanity. Ecol. Soc. 14, a32 (2009). http://www.jstor.org/stable/26268316.

[10] T. M. Lenton et al., Climate tipping points – too risky to bet against. Nature 575, 592-595 (2019).

[11] J. Ebbesson, C. Folke, "Matching scales of law with social-ecological contexts to promote resilience" in Social-Ecological Resilience and Law, A. Garmestani, C. Allen, Eds. (Columbia University Press, New York, 2014).

[12] D. Schlosberg, "Disruption, community, and resilient governance: Environmental justice in the Anthropocene" in The Commons in a Glocal World: Global Connections and Local Responses, T. Haller, T. Breu, T. D. Moor, C. Rohr, H. Znoj, Eds. (Routledge, Abingdon, 2019).

[13] F. Biermann, Earth System Governance: World Politics in the Anthropocene (MIT Press, Cambridge MA, 2014).

[14] L. J. Kotzé, R. E. Kim, Earth system law: The juridical dimensions of earth system governance. Earth System Governance 1, 100003 (2019).

commons will sufficiently consider and effectively ensure global justice that advances a broader understanding of multi-species and inter- and intra- generational co-existence for living well in climate-impacted environments.

Importantly, designing a planetary commons governance framework must be sensitive to the dangers of climate colonialism, which "discursively limits the terms of the global debate, hegemonizes knowledge of and about climate change, and what actions are possible, thereby destroying other epistemologies" such as those based in relationality, kinship, and indigenous knowledges. This, in turn, could open up more innovative and ultimately effective pathways for more inclusive and representative planetary commons governance that are attentive to multiple patterns of planetary injustice: "[F]or the commons, the meaning of a new form of resilience and justice in the Anthropocene is to have more bottom-up institutions being built in a more democratic way, and around an attachment to a material and emotional world which is recognised and 'co-owned'".[15]

Relatedly, any planetary common governance framework must be inclusive, structurally fair, and agreeable to a range of different voices and worldviews, which requires that all decisions on governance goals, targets, and indicators must be based on a broad democratic societal consultation and negotiation process. Developing a framework to govern planetary commons more effectively must therefore be a consultative process that is broadly representative of the views and needs of multiple state and non-state stakeholders, including vulnerable and marginalized communities.

Earth system science will also play a prominent role in these consultations and negotiations, while eventual outcomes must be informed by societal values, different approaches to risk, and democratic and participatory decision-making processes. Thus, a clearer link between law, politics, governance, science, and other knowledge domains should eventually result in the governance of planetary commons that is undergirded and fully shaped by processes of dynamic, mutually supportive knowledge creation, allowing it to become more responsive to and reflective of the state of the planet, its living order, and models of coexistence, kinship, and pluriversal knowledges.[16]

Any governance arrangement for planetary commons would also need to rely on core governance principles, including some existing and generally accepted principles of international environmental law such as the precautionary principle and the "no harm" principle. Yet, these principles would need to be strengthened by new, more challenging principles that align with Anthropocene reality; principles that are able to facilitate governance interventions that are congruent with the Anthropocene's planetary emergency and its myriad injustices; and principles that are sensitive and responsive to both the complex, dynamic, and unstable Earth system as well as pluriversal approaches to knowledges that can protect the Earth system.

[15] D. Schlosberg, "Disruption, community, and resilient governance: Environmental justice in the Anthropocene" in The Commons in a Glocal World: Global Connections and Local Responses, T. Haller, T. Breu, T. D. Moor, C. Rohr, H. Znoj, Eds. (Routledge, Abingdon, 2019).

[16] J. J. Schmidt, The moral geography of the Earth system. Transactions of the Institute of British Geographers 44, 721-734 (2019.

OBJECTIVES

This project departs from and is the critical second phase of the proposal to recognise Earth's biophysical systems as planetary commons. Recognising the governance challenges and key considerations raised above, while also attempting to comprehensively address these, the *principal objective of this project is to develop a detailed framework for governing the planetary commons* in ways that ensure planetary commons governance: is democratic, fair, inclusive and representative of the interests of the entire living order; is ecologically responsible; articulates comprehensive stewardship obligations aimed at restoring and strengthening planetary resilience; recognises the vulnerability of the uneven living order; and ensures multi-species and inter- and intra-generational justice.

OUTCOMES AND IMPACT

This project envisages four broad outcomes. First: to initiate a *theoretical paradigm shift* in how we think about and interrogate global sustainability governance by challenging and fundamentally reorientating traditional governance approaches (i.e., global commons governance) towards an altogether more democratically determined, inclusive, representative, and responsible form of planetary commons governance. Second: to offer multi-perspective proposals on how to *design* a planetary commons governance framework that is fit for the Anthropocene. Third: to formulate, at a very practical level, proposals to *implement* planetary commons governance. Fourth: to introduce and to *mainstream* the idea of planetary commons governance in scientific and policy debates and broader popular culture in the same way that concepts such as planetary boundaries, earth system governance, and tipping points have become integral to the discourse.