

Bringing Ecological and Socioeconomic Justice Together

A Law & Political Economy Approach to Planetary and Earth System Justice

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The (Ecological) Polycrisis

The State of the Environment: Biodiversity

“Nature across most of the globe has now been **significantly altered by multiple human drivers**, with the great majority of indicators of ecosystems and biodiversity showing **rapid decline**.”



IPBES, The Global Assessment Report on Biodiversity and Ecosystem Services: Summary for Policymakers (Sandra Díaz and others (eds), IPBES Secretariat 2019) 11

The State of the Environment: Climate

“Global greenhouse gas emissions have **continued to increase**, with **unequal historical and ongoing contributions** arising from unsustainable energy use, land use and land-use change, lifestyles and **patterns of consumption and production across regions**, between and within countries, and among individuals.”

IPCC, Climate Change 2023: Synthesis Report. (Core Writing Team, Hoesung Lee and José Romero (eds), IPCC 2023) 4

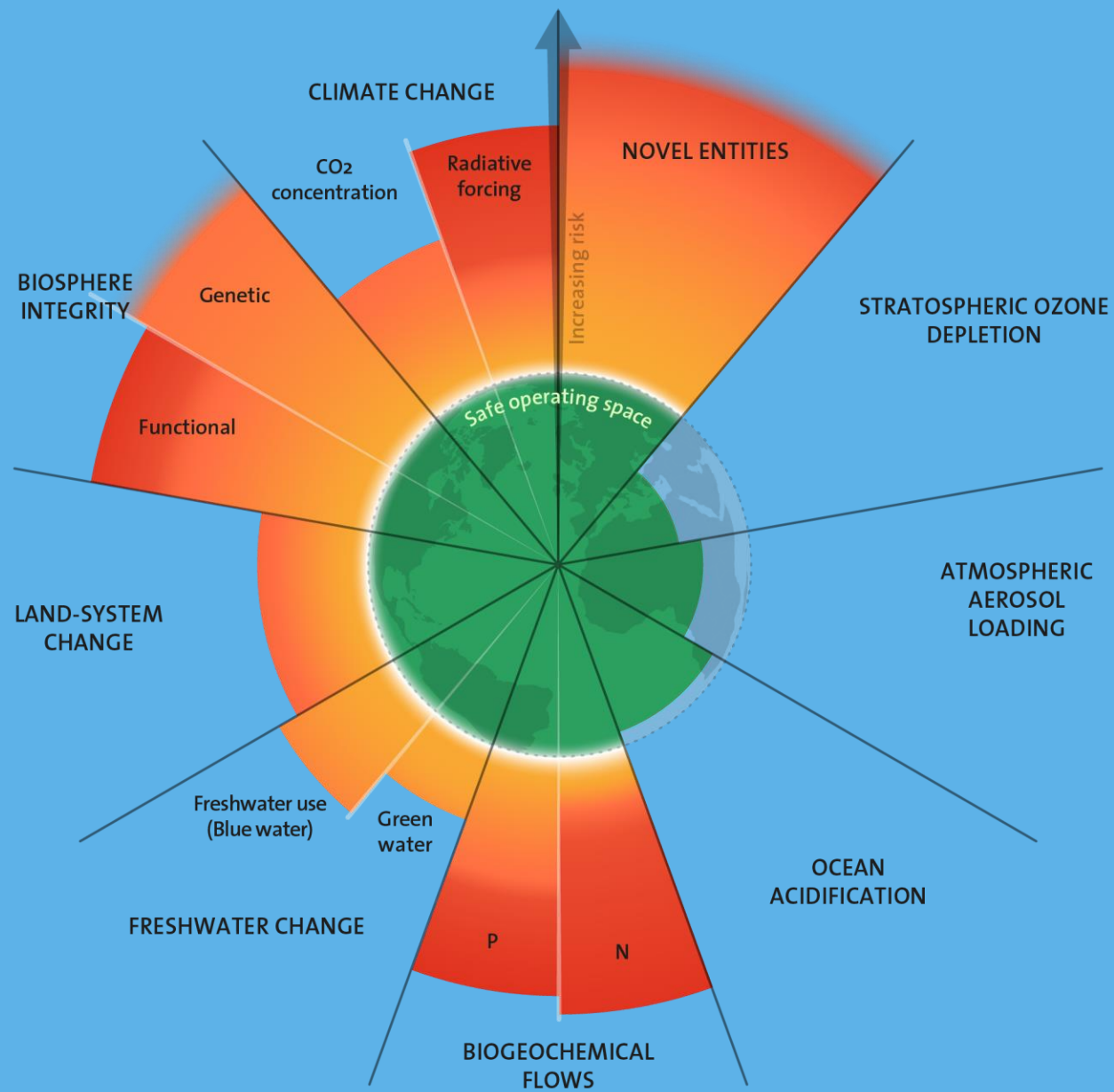
A State of “Polycrisis” (1/2)

“[I]l y a **inter-rétro-actions** entre les différents problèmes, les différentes crises, les différentes menaces. Ainsi en est-il pour les problèmes de santé, de démographie, d’environnement, de mode de vie, de civilisation, de développement. [...] Plus largement, la **crise de l’antroposphère** et la **crise de la biosphère** se renvoient l’une à l’autre, comme se renvoient l’une à l’autre les crises du passé, du présent, du futur.”

A State of “Polycrisis” (2/2)

“[M]ultiple crises happening simultaneously, **feedback loops** where crises interact in (un)foreseeable ways, **amplification and acceleration** of crises when they intersect, an unboundedness where crises are **not confined to a single time and space**, emerging and **layering of multiple causes and effects**, the breakdown of shared meaning and cross-purposes.”

David Henig & Daniel M. Knight, “Polycrisis: Prompts for an emerging worldview” (2023) 39 *Anthropology Today* 3



Some Characteristics of the Planetary Boundary Framework

- Evaluates and quantifies the extent of anthropogenic pressures on the global environment
- Serves as a sound scientific basis for the determination of necessary transformation in the way humanity inhabits the world
- Defines a “Safe operating space” according to the precautionary principle
- Processes can be distinguished according to their scale: some are global while others have rather regional operating levels

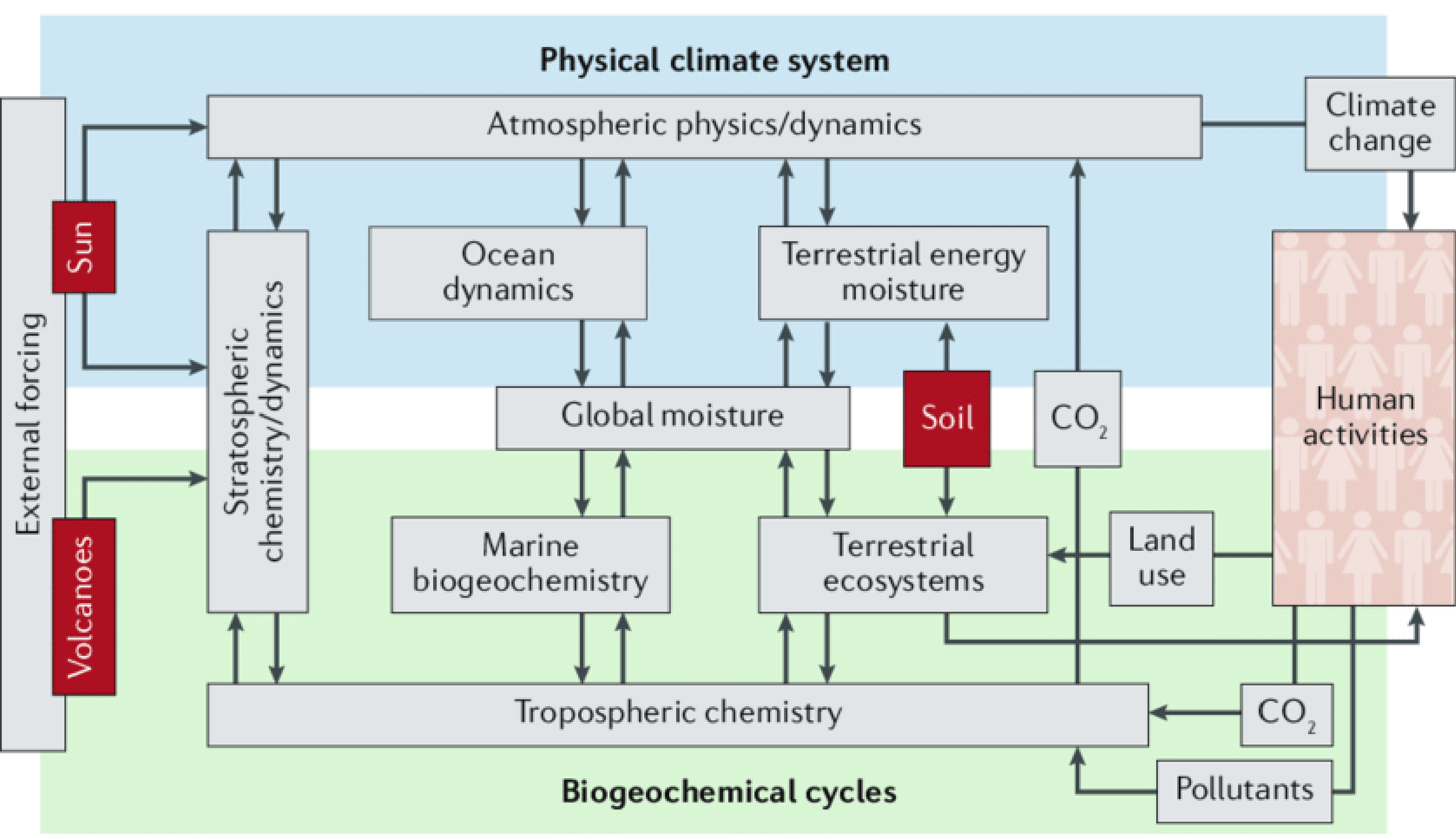


Earth System Science and Governance

Earth System Science

- The **Gaia Hypothesis**: “Life and its non-living environment on Earth form a self-regulating system that maintains the Earth’s climate and the composition of the atmosphere in a habitable state.”
- Establishment by NASA in 1983 of the Earth System Sciences Committee to:
 - Review the science of the Earth as an integrated system of interacting components
 - Recommend an implementation strategy for global Earth studies
 - Define NASA’s role in such a program of Earth System Science
- Resulted in a 1986 report containing the “Bretherton Diagram”





Earth System Governance

- Human and social sciences counterpart to Earth System Science
- originates from and builds upon the work of the **International Human Dimension Programme on Global Environmental Change (IHDP)**, one of four research programmes in the broader Earth System Science Partnership (ESSP), the ancestor of **Future Earth**
- The study of the interrelated and increasingly integrated system of **formal and informal rules, rulemaking systems, and actor-networks** at all levels of human society that are set up to steer societies towards **preventing, mitigating, and adapting** to global and local environmental change, in particular Earth system transformation

The 5 A's of Earth System Governance

- **Architecture** (of the international, supranational and transnational political and legal systems and networks)
- **Agency**
- **Adaptiveness**
- **Accountability**
- **Allocation (of) & Access** (to resources but also risks and responsibilities)

Planetary

v.

Earth System

Justice

The Planetary v. The Global

“**The Planetary** for **Latour** is not about developing concerns in relation to ‘the whole’, but rather the idea of the planetary ‘**bursts the bubble**’ of **the Globe**, it breaks apart the idea that ‘the planet’, or human/non-human relations ‘on’ it, can really be captured as a ‘whole’.”

Milja Kurki, “Planetary Justice reconsidered” (2024)
33 *Environmental Politics* 1189

A Definition of Planetary Justice

“The notion of ‘planetary justice’ is for our purposes preferable [to ‘socio-ecological justice’] because it denotes justice that **relates to the Earth system as a whole (rather than to local or regional systems)**. Thus climate justice and biodiversity justice—along with hitherto unexplored ideas such as nitrogen and phosphorus justice—could all be seen as **facets of planetary justice**. [...] [T]hree ways in which the scope of planetary justice needs to reach beyond Holocene thinking: by **escaping state-centric accounts** of justice; in **extending justice to future generations**; and through **encompassing justice for non-humans**.”

John S. Dryzek & Jonathan Pickering, *The Politics of the Anthropocene*
(Oxford University Press 2018) 67-68

The Essentials of Planetary Justice according to J.S. Dryzek and J. Pickering (1/2)

1. Viewing **humanity's relationship with the Earth system as central** to planetary justice, rather than keeping justice in splendid isolation from the Earth system, as many Holocene accounts (such as that of Rawls) were wont to do;
2. Thinking about how to **detach the practical pursuit of justice from unending economic growth**;
3. Expanding justice **beyond** the confines of **state boundaries**;

The Essentials of Planetary Justice according to J.S. Dryzek and J. Pickering (2/2)

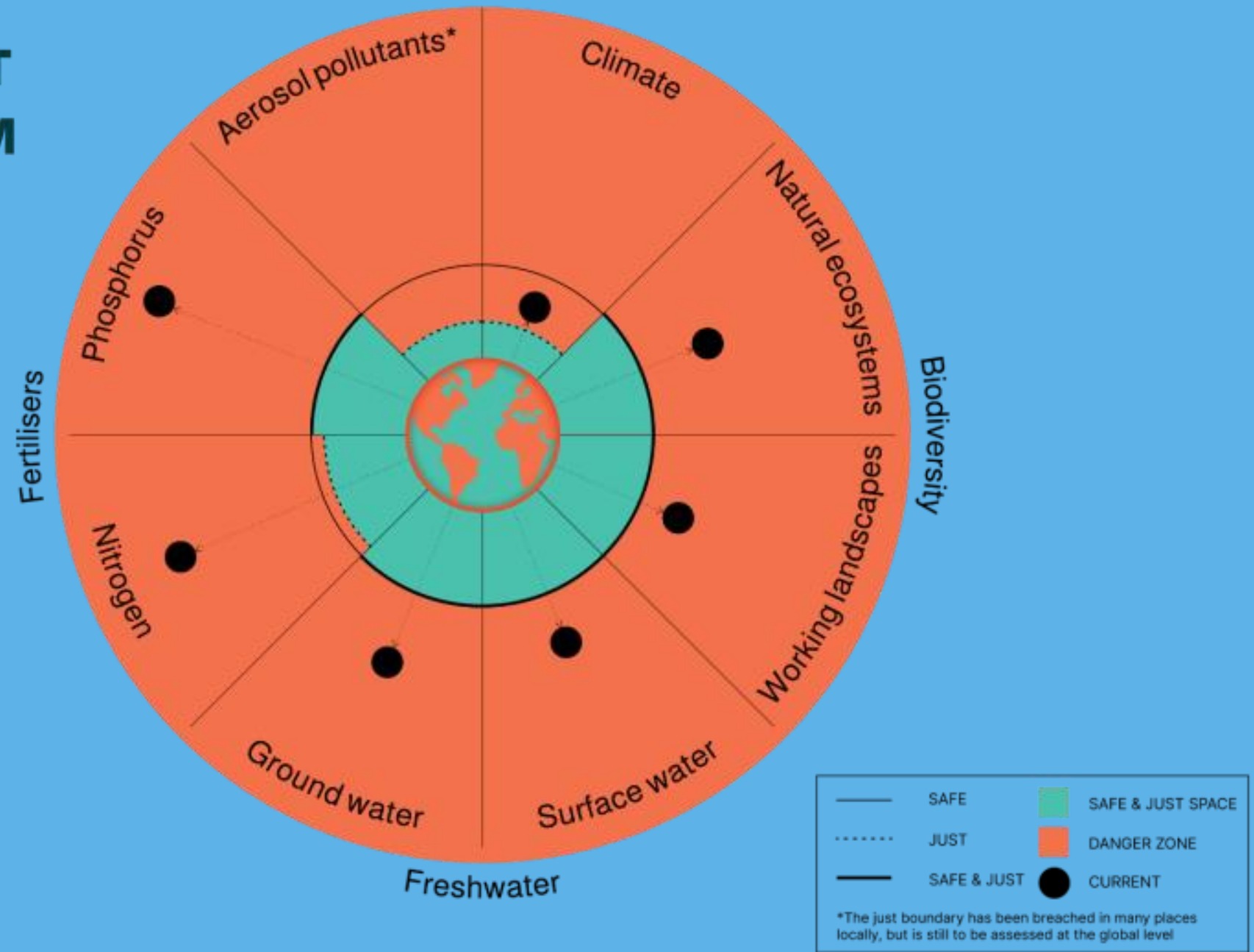
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- 4. Extending justice to **non-humans, future generations, and the Earth system** in its entirety;
 - 5. Joining **individualist and collectivist approaches to responsibility** for minimizing and remedying damage to the Earth system, while recognizing that in the end, individualist approaches must yield to the need for collective action;
 - 6. Safeguarding a **capacity for people to contest** what justice should mean under a changing Earth system
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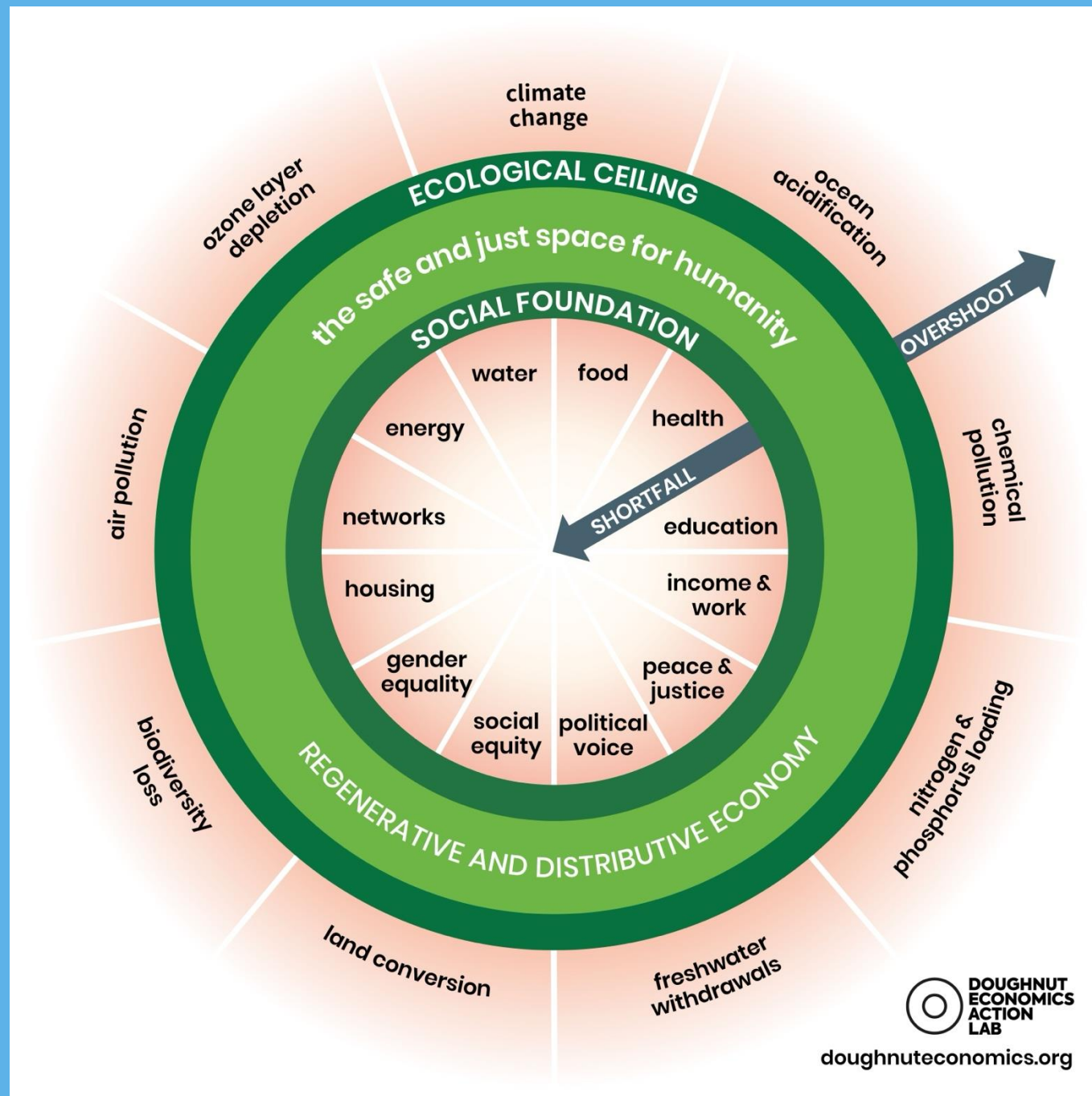
A Definition of Earth System Justice

“An **equitable sharing** of nature’s **benefits**, **risks** and related **responsibilities** among all people in the world, within safe and just Earth system boundaries to provide **universal life support**.”

Joyeeta Gupta *et al.*, ‘Earth system justice needed to identify and live within Earth system boundaries’ (2023) 6 *Nature Sustainability* 632

SAFE AND JUST EARTH SYSTEM BOUNDARIES





The Essentials of Earth System Justice according to J. Gupta and C. Vegelin (1/2)

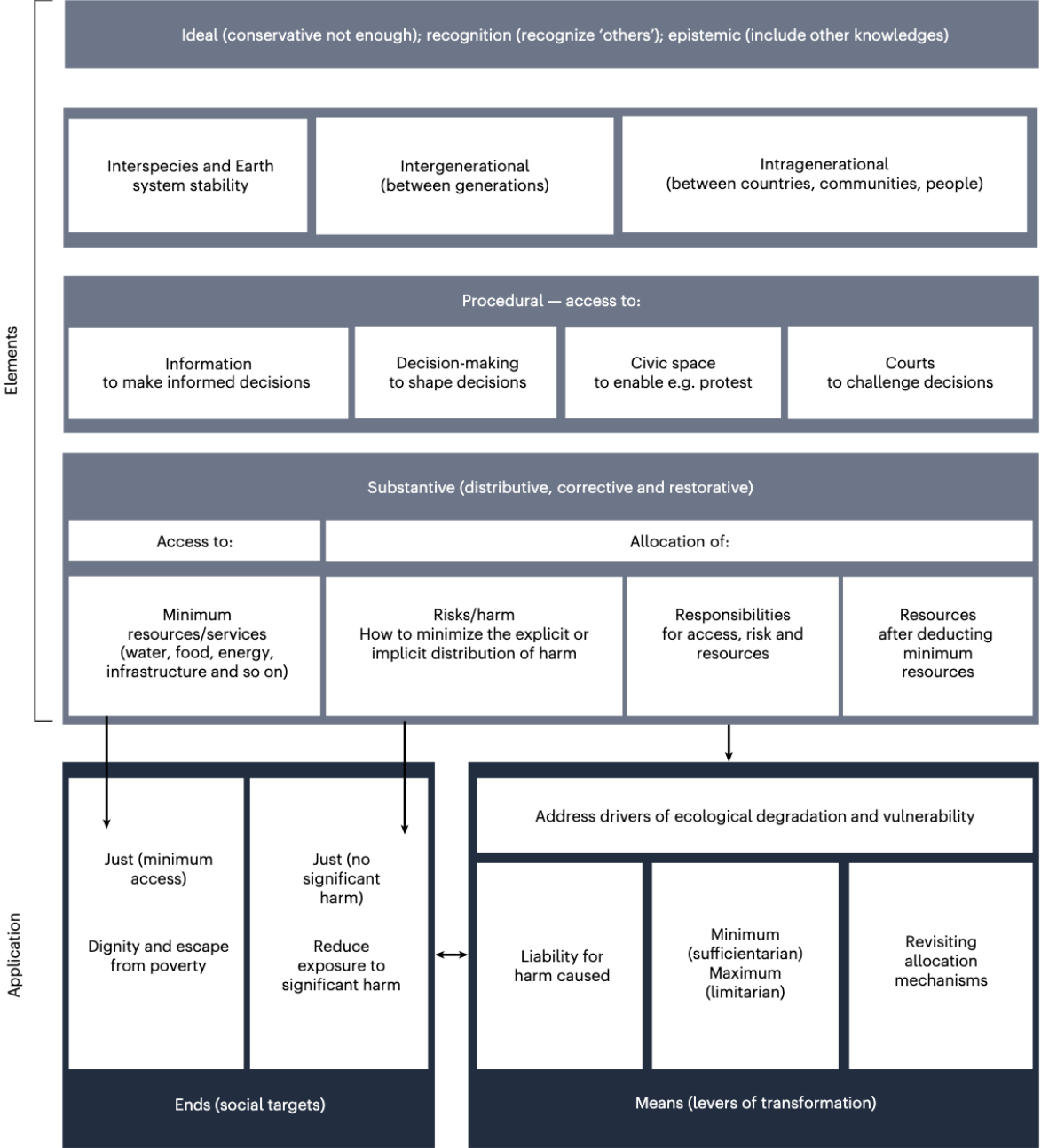
“[M]eeting **basic needs** requires massive changes to the existing allocation of resources, risks and responsibilities worldwide [...]. Access cannot be met without **reallocation** because:

- a) historic allocation systems have **created the poor and vulnerable**;
- b) allocation systems based on pricing of scarce resources and markets for buying and selling these resources lead to rising prices making resources **unaffordable for the poor** [...];

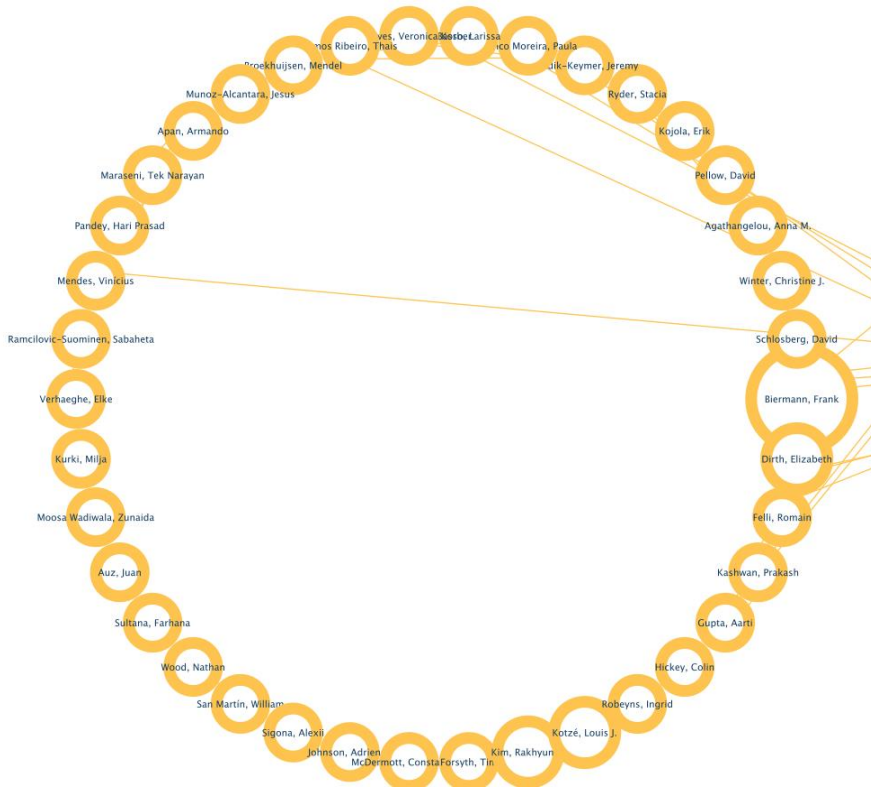
The Essentials of Earth System Justice according to J. Gupta and C. Vegelin (2/2)

- c) allocation systems **based on externalizing the environment** [...] end up with **further dispossessing the poor through pollution**;
- d) aid and philanthropic organizations that aim to address access issues often inadvertently or deliberately **keep the unjust allocation system intact** [...]; and
- e) **procedural justice** which aims at incorporation or equality of opportunity may miss the point: it **needs to allow room for recognition and epistemic justice** as well as **providing greater opportunity** to the poor [...].”

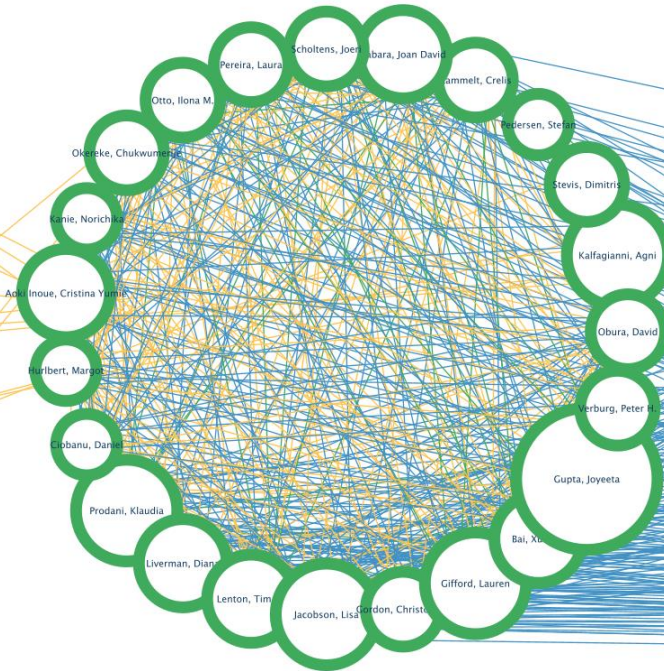
Earth system justice



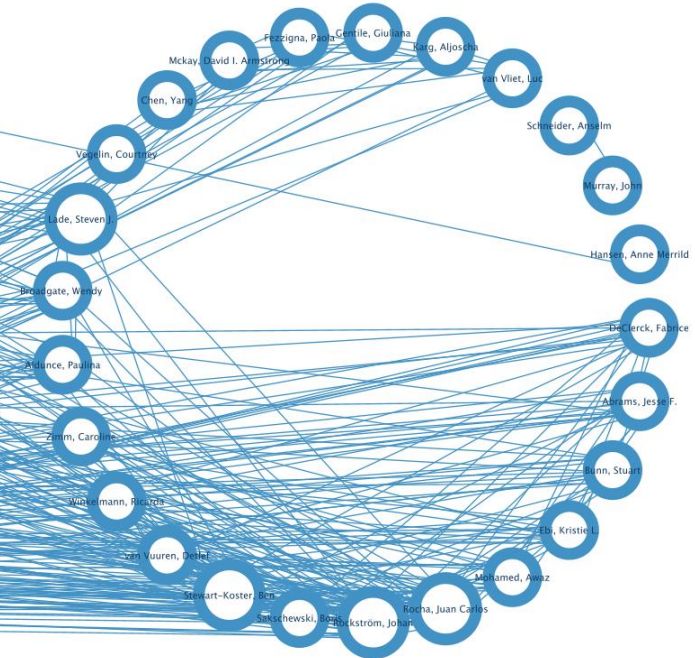
Planetary Justice



Both



Earth System Justice



The diagram illustrates a network of 30 individuals, represented as nodes in a circular arrangement. The nodes are connected by lines, forming a complex web of relationships. The nodes are labeled with names, and the connections represent relationships between them. The nodes are arranged in a circle, and the connections are represented by lines of varying thickness, indicating the strength or type of relationship. The nodes are labeled with names, and the connections represent relationships between them.

Nodes (clockwise from top):

- Thijs, Veronica
- Moreira, Paula
- Jik-Keymer, Jeremy
- Ryder, Stacia
- Kojola, Erik
- Pellow, David
- Agathangelou, Anna M.
- Winter, Christine J.
- Schlossberg, David
- Biermann, Frank
- Dirth, Elizabeth
- Felli, Romain
- Kashwan, Prakash
- Gupta, Aarti
- Hickey, Colin
- Robeyns, Ingrid
- Kotzé, Louis J.
- Kim, Rakhyun
- Forsyth, Tina
- McDermott, Consta
- Johnson, Adrien
- Sigona, Alexii
- San Martin, William
- Wood, Nathan
- Sultana, Farhana
- Auz, Juan
- Moosa Wadiwala, Zunaida
- Kurki, Mirja
- Verhaeghe, Elke
- Ramcilovic-Suominen, Sabaheta
- Mendes, Vinicius
- Pandey, Hari Prasad
- Maraseni, Tek Narayan
- Apan, Armando
- Munoz-Alcantara, Jesus
- Broekhuijsen, Mendel
- Ribeiro, Thais

The diagram illustrates a network of 25 individuals, with their names listed around the perimeter of a circular arrangement. The connections between these individuals are represented by a dense web of thin lines in blue and yellow/gold. The names, starting from the top and moving clockwise, are: Scholtens, Joeri; Labara, Joan Davis; Hammelt, Crelis; Pedersen, Steffen; Stevis, Dimitris; Kalfagianni, Agni; Obura, David; Verburg, Peter H.; Gupta, Joyeeta; Bai, Xian; Gifford, Lauren; Gordon, Christa; Jacobson, Lisa; Lenton, Tim; Liverman, Diane; Prodani, Klaudia; Dobanu, Daniel; Waribert, Marcel; Anouinoue, Cristina Yumie; Kanie, Norichika; Okereke, Chukwumeka; Otto, Ilona M.; Pereira, Laura; and Scholtens, Joeri.

A circular network graph showing connections between 25 individuals. The nodes are arranged in a circle, and the edges represent relationships between them. The graph is highly interconnected, with many lines crossing between nodes. The individuals listed around the circle are: Pizzigna, Paolo; Gentile, Giuseppina; Zarg, Aljoscha; Van Vliet, Luc; Schneider, Anselm; Murray, John; Hansen, Anne; Merrild; De Clerck, Fabrice; Abrams, Jesse F.; Bann, Stuart; Ebi, Kristie L.; Mohamed, Amoz; Farina, Juan Carlos; Ekström, Jonas; Sankshewski, Robert; Stewart-Koster, Ben; van Lauren, Gertel; Wolkenmann, Rüdiger; Zimm, Caroline; Adlonce, Paulina; Broadgate, Wendy; Lade, Steven; Vogelín, Courtney; Chen, Yanyan; McKay, David I.; and Armstrong.

Earth System Governance Project

Future Earth

Refining Justice in the Earth System

Building (Ecological) Capabilities (1/4): The Capability Approach

“[A]n attempt to build a coherent framework of a realization-focused assessment approach to human well-being, freedom and equality [through concern] not with the characterization and implementation of the optimal allocation of resources, but with the **identification of the channels through which the suboptimal allocation of resources can be improved upon** without violating the freedom and dignity of individuals.”

Kotaro Suzumura, ‘The Capability Approach to Well-Being and Freedom from the Viewpoint of Welfare Economics and Social Choice Theory’ in E. Chiappero-Martinetti, S. Osmani and M. Qizilbash (eds), The Cambridge Handbook of the Capability Approach (Cambridge University Press 2020) 121

Building (Ecological) Capabilities (2/4): Capability-based Justice

“There is a strong case [...] for **replacing** [...] **transcendental institutionalism** – that underlies most of the mainstream approaches to justice in contemporary political philosophy, including John Rawls’s theory of justice as fairness – by focusing questions of justice, first, on **assessment of social realizations**, that is, on what actually happens (rather than merely on the appraisal of institutions and arrangements); and second, on **comparative issues of enhancement of justice** (rather than trying to identify perfectly just arrangements).”

Building (Ecological) Capabilities (3/4): Sustainable Ecological Capacity

“[B]eing able to live one’s life in the context of **ecological conditions that can provide environmental resources and services that enable** the current generation’s range of **capabilities**; to have these conditions **now and in the future** [...], it is necessary for the exercise of other capabilities, but the ecological conditions that constitute the capability are a component of individual opportunity.”

Breena Holland, ‘Justice and the Environment in Nussbaum’s “Capabilities Approach”: Why Sustainable Ecological Capacity Is a Meta-Capability’ [2008] 61 *Political Research Quarterly* 319

Building (Ecological) Capabilities (4/4): Ecosystem Integrity

“[Martha Nussbaum’s] central argument extending the capabilities approach is that ‘no sentient animal should be cut off from the **chance for a flourishing life**, a life with **the type of dignity relevant to that species**, and that all sentient animals should enjoy certain positive opportunities to flourish’.”

“**[D]ignity is an inappropriate concept to apply beyond human beings**, but a conception of **integrity accomplishes for nonhumans** what dignity does for human beings – it requires us to think about the autonomy and unfolding of potential and of the ethical issues of interrupting that life process. Integrity, in this sense, is **a state where functioning remains**; a violation of integrity undermines function and is the definition of injustice.”

David Schlosberg, ‘Ecological Justice for the Anthropocene’, Marcel Wissenburg and David Schlosberg (eds), *Political Animals and Animal Politics* (Palgrave Macmillan 2014) 76 and 81

The Concentric Circle Theory (1/3)

- Developed by US legal philosopher Peter S. Wenz in his 1988 book *Environmental Justice*
- Based on
 - his assessment of 8 theories of distributive justice as applied to environmental matters
 - Aldo Leopold's Land Ethic (renamed as Ecocentric Holism)
- Consists of 10 underlying theses we summarise in a three-step process:

The Concentric Circle Theory (2/3)

1. Between humans, assuming concentric circles around A and that B has more actual or potential interactions with – and is thus situated closer to – A than C does and is, other things being equal, A has stronger and/or more numerous obligations to satisfy positive rights and preferences of B than those of C , with the positive rights of C however trumping the preferences of B even though the latter is closer to A , and negative rights being equal for B and C as these rights are unaffected by one's closeness to A ;

The Concentric Circle Theory (3/3)

2. Being situated on further concentric circles from humans, nonhuman animals have only negative rights, which are not absolute and can be overridden by other considerations, except for domesticated animals who also have some positive rights because their dependency results from unilateral human action;
3. Non-sentient constituents of the environment have no rights *per se* as they are on even further circles, but humans have an obligation to act in favour of the preservation and continuation of biodiversity-enhancing evolutionary processes.

Conclusion: Redefining Justice in the Earth System

A Relational, Pluralistic and Capability-based Proposition

A **bounded decisional framework** whereby humans, as an integral part of the Earth System and, therein, of complex and interconnected socioeconomic systems, must **select among a varied range of policies, means, responses**, (judicial) decisions, etc., the ones most **conducive to safeguarding and amelioration of the resilience** of other humans and ecosystems (within and across generations), species and, as much as is considered reasonable by means of **inclusive and democratic deliberation**, individual living organisms; the force and extent of one's obligations towards another component of the Earth system decreasing with **interactional and biological distance** safe for the **baseline guarantees of human and animal rights**.

Some Remarks

- The available policies, means, etc. are vast and not necessarily mutually exclusive, but should be the result of careful deliberation in order not only to avoid negative externalities but also to improve resilience, in particular for the most vulnerable components of the Earth system;
- The exact content of human and animal rights and exact level of efforts required to achieve resilience shall depend on concrete circumstances and be determined by an inclusive political process, the main objective being, through a standstill effect, to avoid regression;
- Resilience is not a personal feature or quality but a socio-politically-enabled process: its level of achievability depends on the design of legal and political institutions, resource allocation mechanisms, and individual or collective action.

Some Probable Requirements (with regards to the 5 A's)

- **Architecture:** Polycentric Governance (See the work of Elinor Ostrom on Common-pool resources)
- **Agency:** More deliberative and inclusive decision-making (e.g., the *Conventions citoyennes*)
- **Adaptiveness:** Institutions focused on building capabilities
- **Accountability:** A Transformative approach to corrective justice
- **Allocation & Access:** A Post-Growth and redistributive approach to the economy



Thank you!

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