



# The Law & Political Economy of Planetary and Earth System Justice

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# The (Ecological) Polycrisis

## A State of “Polycrisis” (1/2)

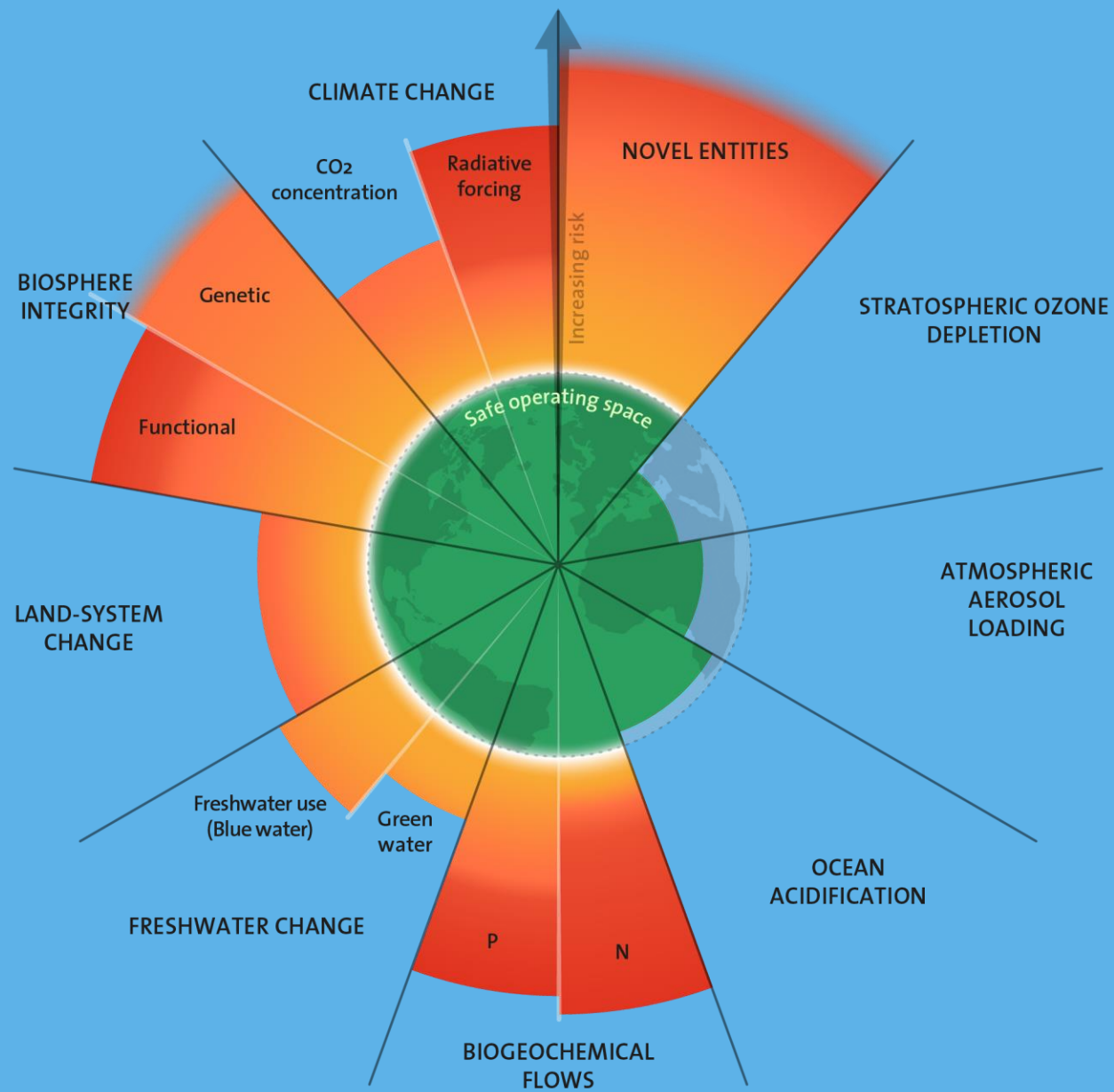
“[I]l y a **inter-rétro-actions** entre les différents problèmes, les différentes crises, les différentes menaces. Ainsi en est-il pour les problèmes de santé, de démographie, d’environnement, de mode de vie, de civilisation, de développement. [...] Plus largement, la **crise de l’antroposphère** et 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.”

Henig & Knight, 2023, p. 3





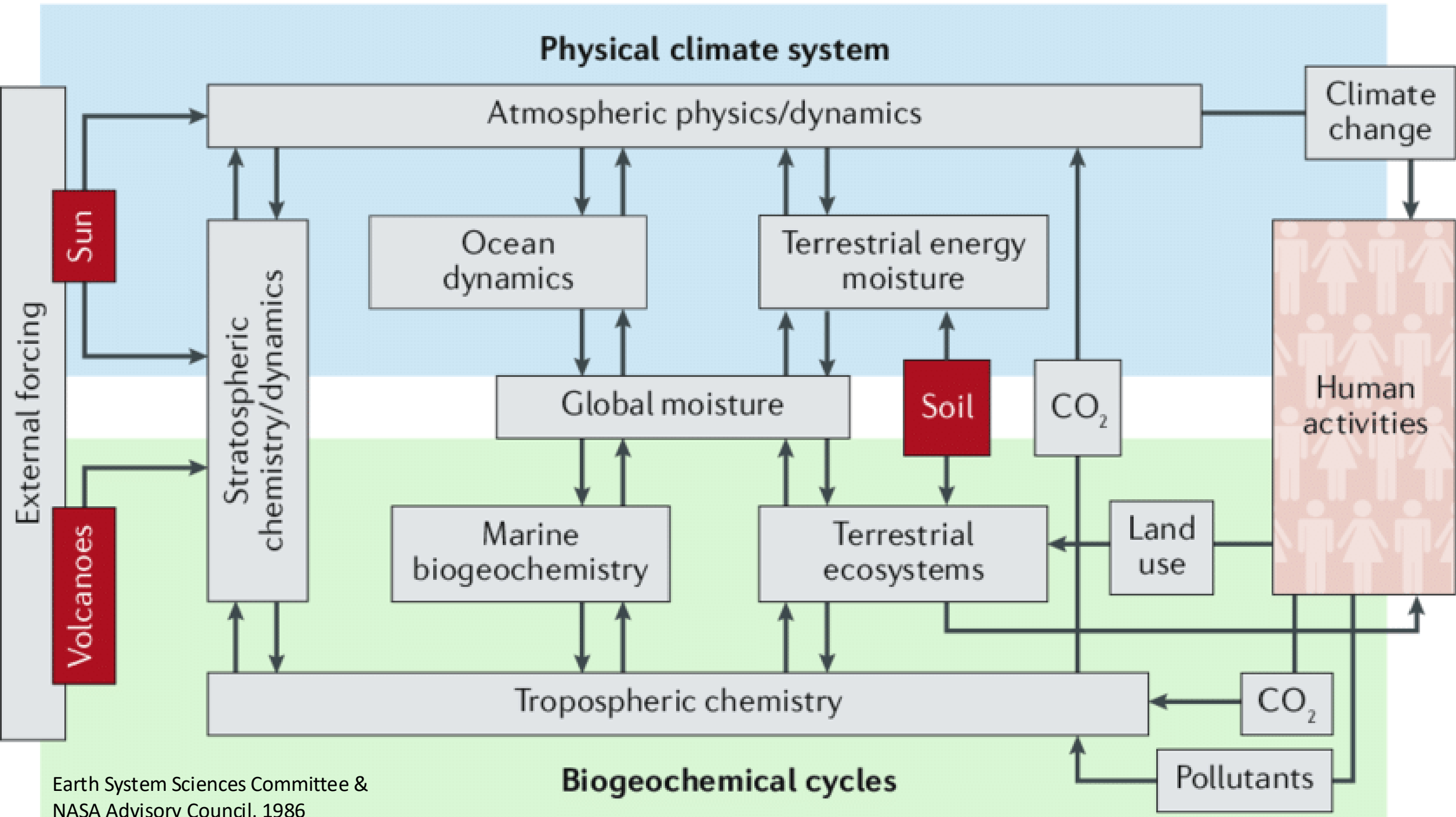
# Systems Thinking

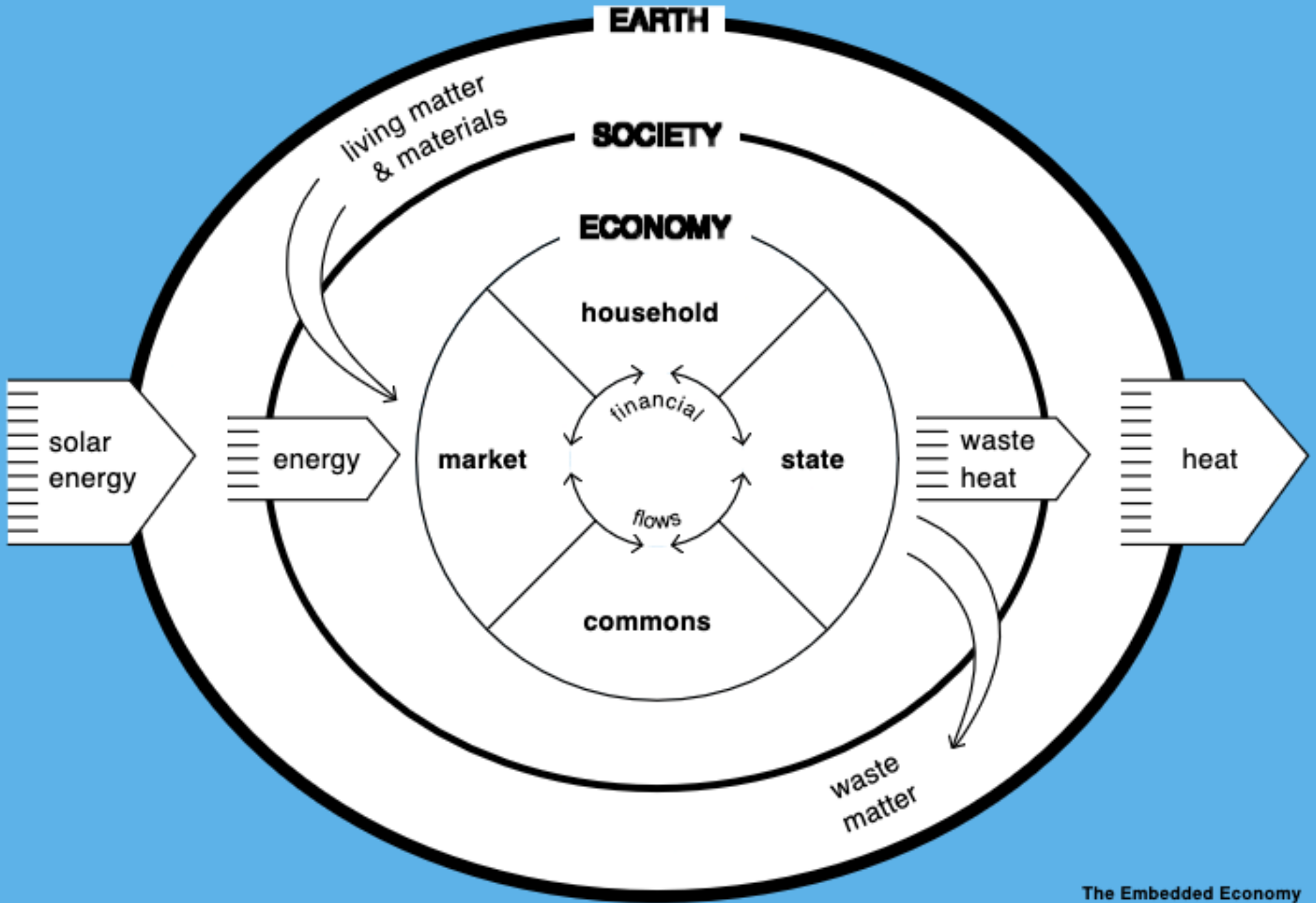
# Earth System Science

- 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)

# The Planetary Turn

# 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’.”

Kurki, 2024, p. 1189

# The Planetary and the Earth System

**Planetary Health** (Horton et al., 2014)

**Planetary Solvency** (Trust et al., 2025)

**Planetary Commons** (Rockström et al., 2024)

**Earth System Law** (Kotzé and Kim, 2019)

**Earth System Governance** (Biermann et al., 2010)

**Planetary Jurisdiction** (Buser, 2025)

**Earth System Tipping Points (Governance)** (Milkoreit et al., 2024)





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**Earth System Justice** (Gupta et al., 2023)

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**Planetary**

**v.**

**Earth System**

**Justice**

# 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)

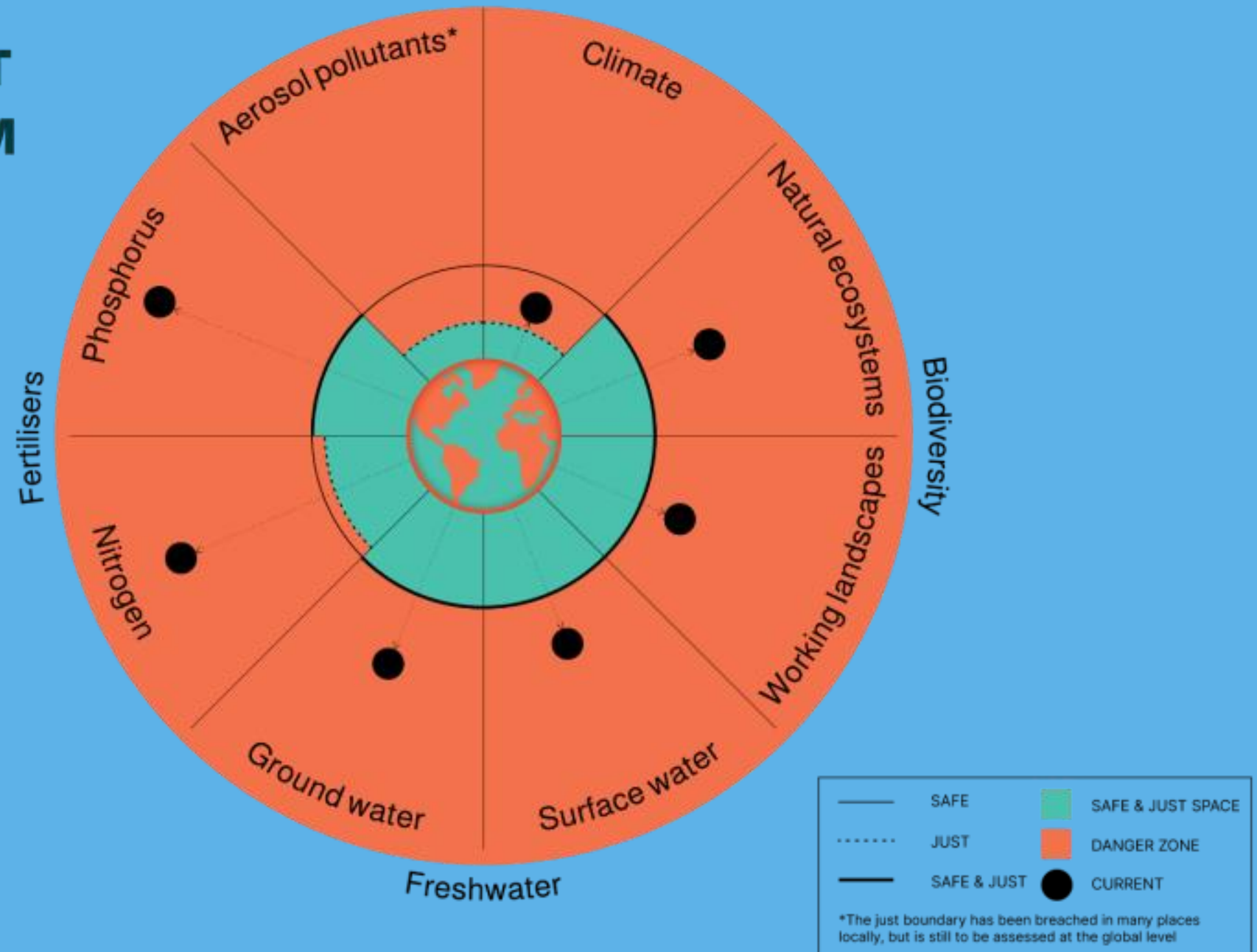
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4. Extending justice to **non-humans, future generations, and the Earth system** in its entirety;
  5. Joining **individualist and collectivist approaches to responsibility** for minimizing and remedying damage to the Earth system, while recognizing 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

# A Definition of Earth System Justice

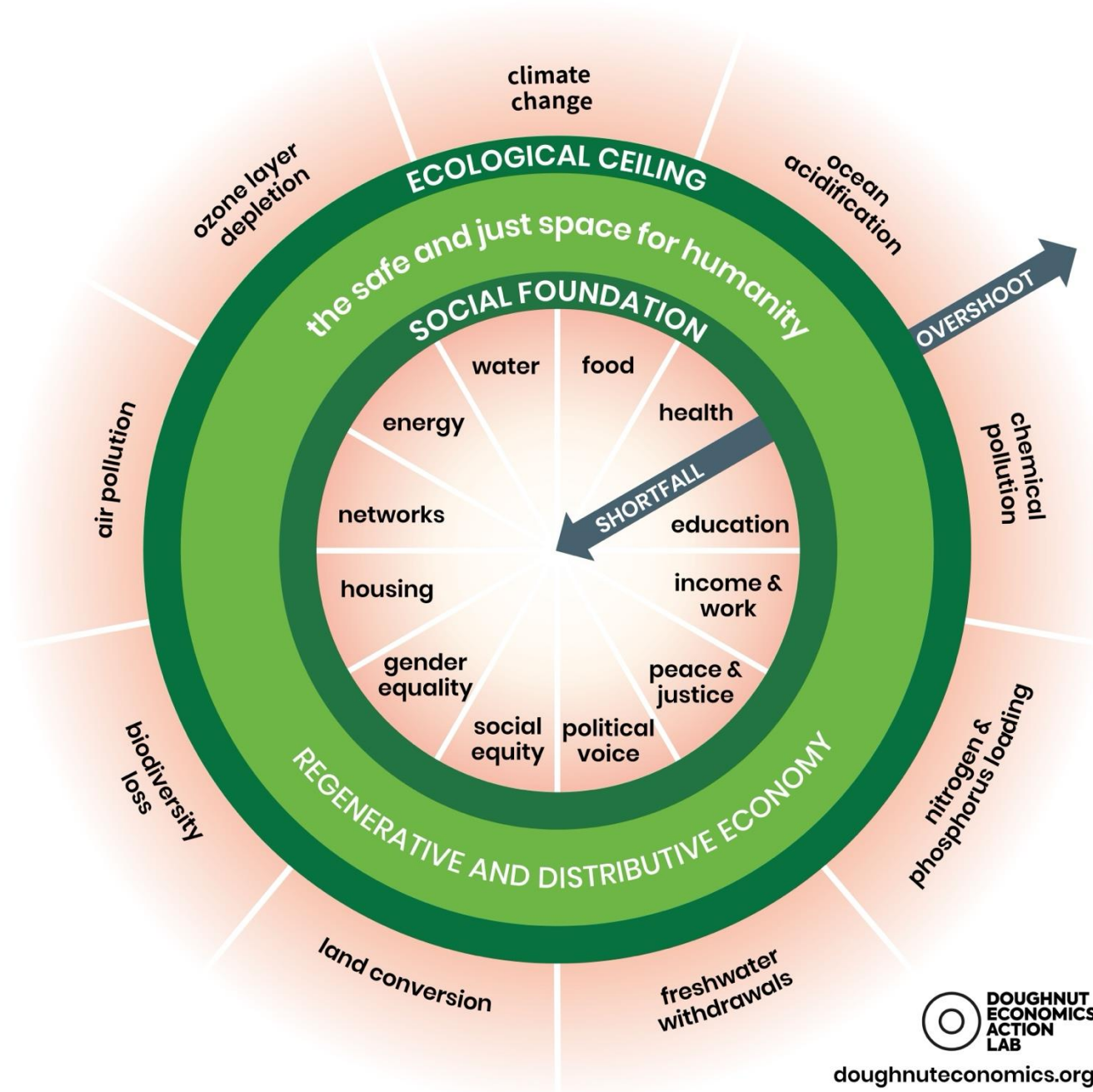
“An **equitable sharing** of nature’s **benefits, risks** and related **responsibilities** among all people in the world, within **safe and just Earth system boundaries** to provide **universal life support**.”

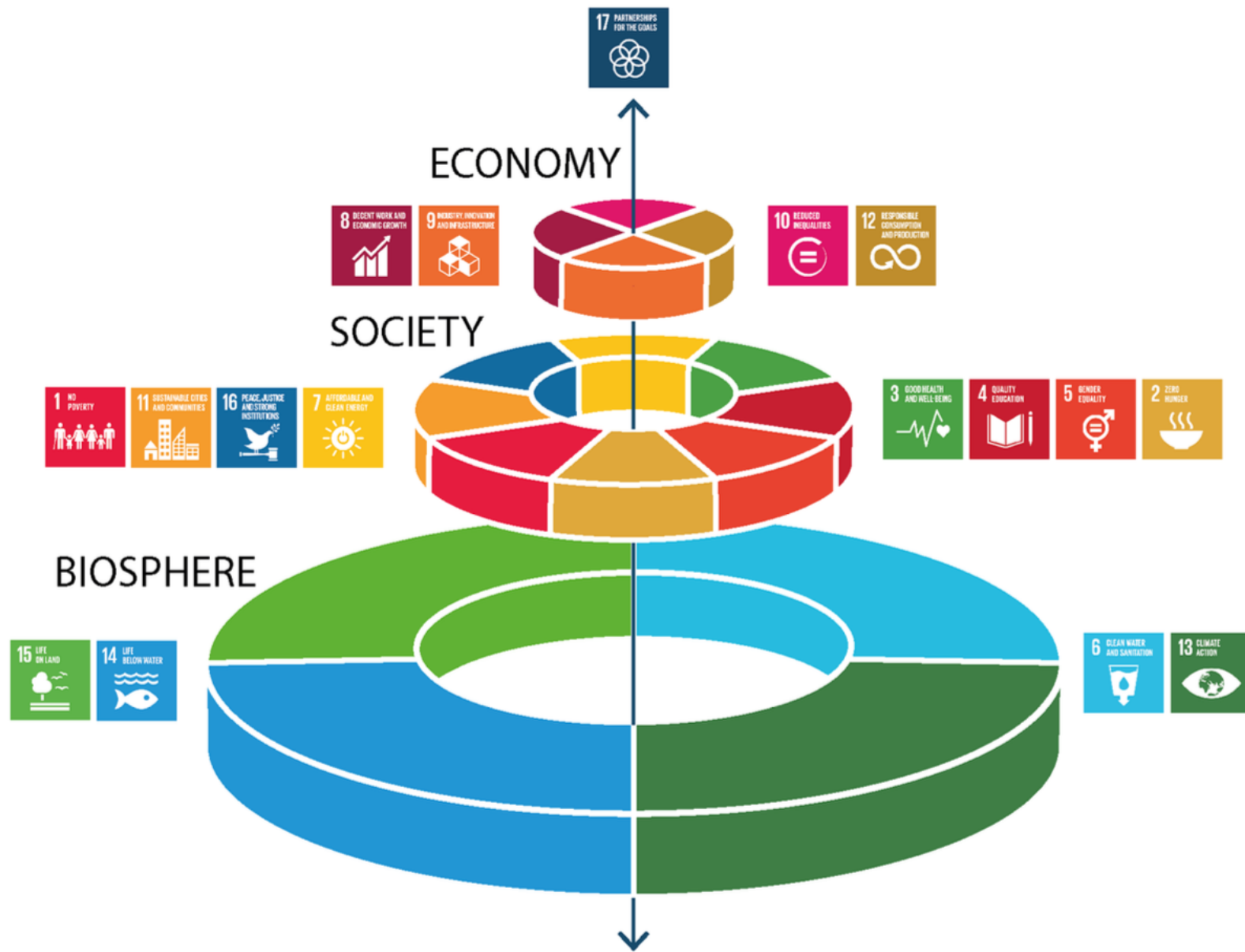
Joyeeta Gupta *et al.*, ‘Earth system justice needed to identify and live within Earth system boundaries’ (2023) 6 *Nature Sustainability* 632

# SAFE AND JUST EARTH SYSTEM BOUNDARIES









# THE GLOBAL GOALS

For Sustainable Development

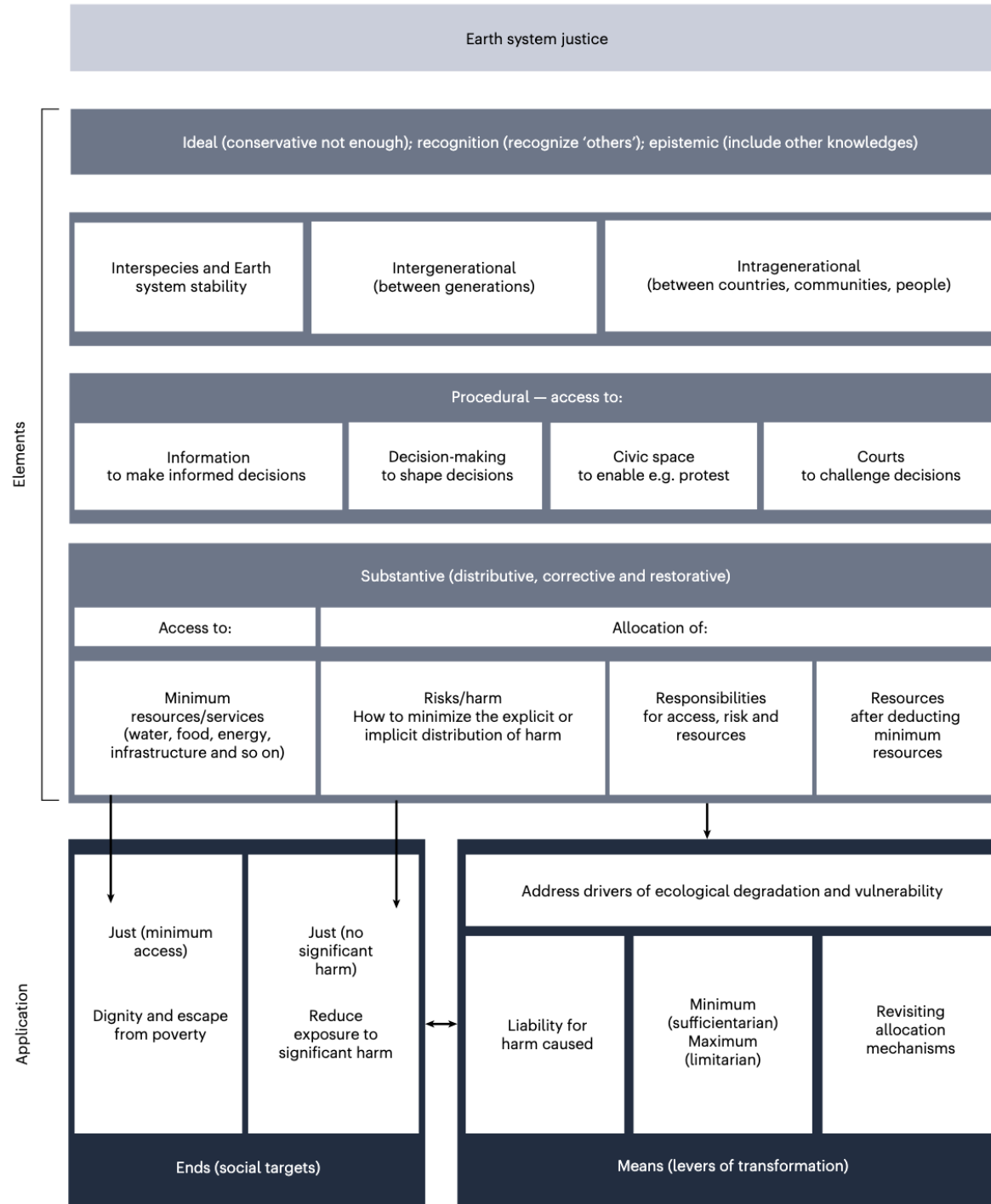
# The Essentials of Earth System Justice according to J. Gupta and C. Vegelin (1/2)

“[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 [...].”



# 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.”

# 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.”

## 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.”

Schlosberg, 2014, pp. 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.

# Thank you!

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