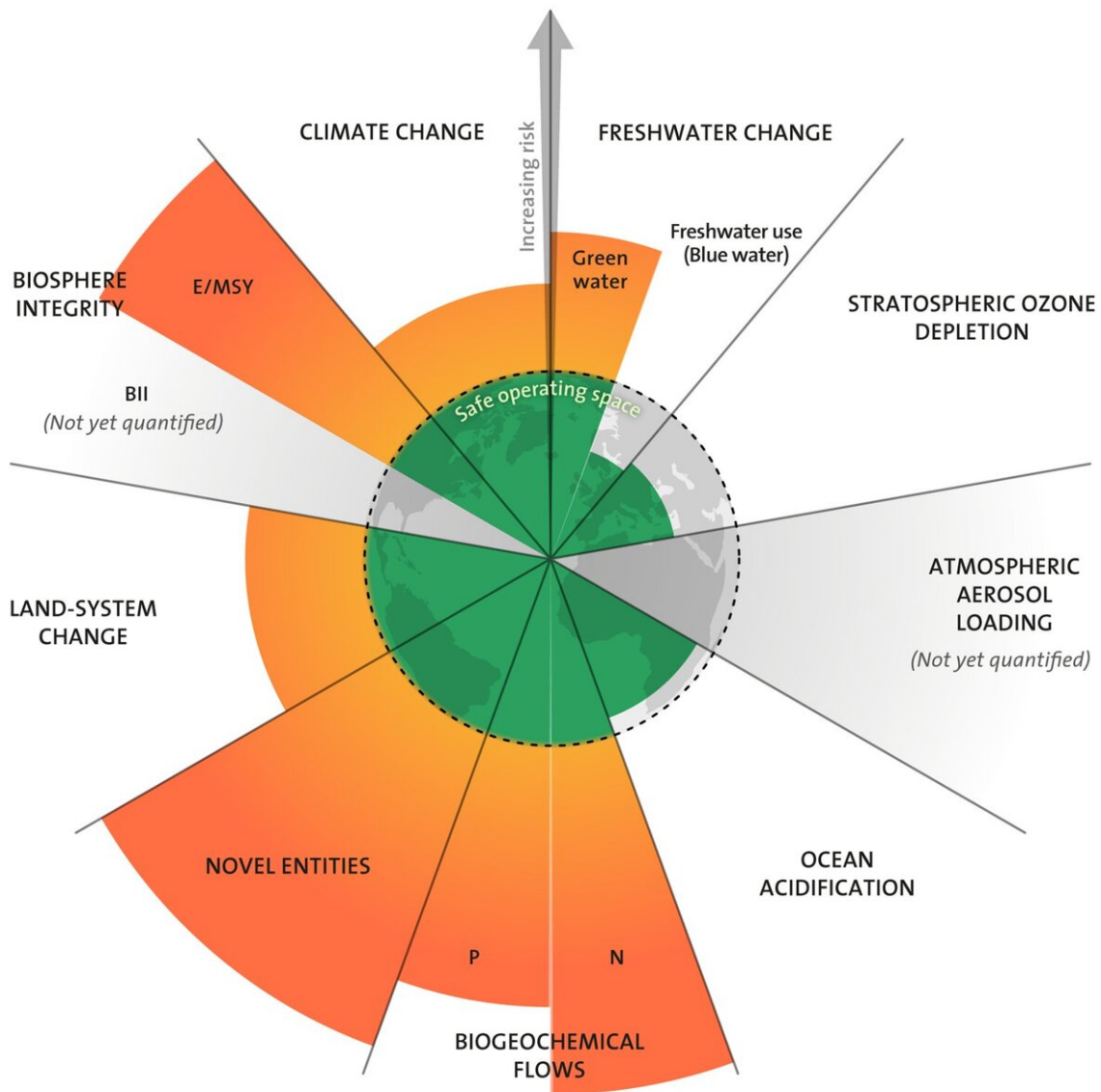


Our Earth is becoming unlivable. Can we still turn the tide?

May 17 2023, by Dagmar Aarts



The nine planetary boundaries. The orange and red indicate which have been

exceeded (October 2022 data). Credit: Leiden University

We have crossed six of the nine boundaries within which human life on Earth will still be possible for future generations. That is not good news. Can the tide still be turned?

The [planetary boundaries](#) were discussed on May 9 as part of the Leiden University Green Office's Sustainability Day. They include [climate change](#), biodiversity loss and ocean acidification. Six of the nine boundaries have already been crossed (see figure above). Crossing planetary boundaries increases the risk of large-scale abrupt or irreversible environmental changes.

Systemic changes are needed

Drastic changes are needed to ensure that the Earth remains habitable. In a keynote lecture, Jan Willem Erisman, Professor of Environmental Sustainability, said systemic changes are needed in food, energy and how we live and consume. In fact, all planetary boundaries are interconnected.

For example, once the nitrogen limit is exceeded, it affects biodiversity and climate. Besides planetary boundaries, Erisman also stressed the importance of social boundaries, which include education, [social equality](#) and health care. Planetary boundaries and social [boundaries](#) affect each other, and if we are to preserve a livable Earth, they must be addressed in an integrated way—which is possible.

Local solutions

One approach that can help keep the Earth livable is to let communities come up with their own local solutions. Erisman gained first-hand experience of this with some farmers on Schiermonnikoog island.

And the Polder Lab, part of the university's Livable Planet program, is a place where farmers and citizens work together to explore how peatland can be managed sustainably and profitably. Erisman said, "You see that communities often achieve more than their original goal. There is hope if we give communities responsibility for themselves."

Provided by Leiden University

Citation: Our Earth is becoming unlivable. Can we still turn the tide? (2023, May 17) retrieved 3 May 2024 from <https://phys.org/news/2023-05-earth-unlivable-tide.html>

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