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- CORONAVIRUS AND THE EXPLOITATION OF NATURE
- REFORM DER EU-FISCHEREIPOLITIK
- NEUE PFLANZENZÜCHTUNGSVERFAHREN

If Greta read GAIA ...



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I love GAIA, this unique journal, powered by committed people. The world needs it to fill one of the most significant knowledge gaps of humanity: actionable understand-

ing of what it takes to thrive within the means of our planet. The COVID-19 crisis reminds us that the means of our planet are not only climate, water, or food.¹ Given our species' dominance and global connectivity, the symptoms of ecological overshoot also include new diseases.² I eagerly browse through every GAIA issue, admire its pleasing layout ... and get this sinking feeling that GAIA may not respond adequately to the challenges humanity is facing.³

Humanity demands now at least 56 percent more from our planet than its ecosystems can renew.⁴ This is like using 1.56 planet Earths. But to safeguard 85 percent of the world's biodiversity, humanity needs to use less than half Earth, according to E.O. Wilson.⁵ Hence humanity exceeds threefold the metabolic rate compatible with a lasting existence, including stabilizing our climate and maintaining biodiversity. This gap represents the average. Some portions of humanity still need more material possibilities to thrive. Pointing out the speed and scale of needed change is neither pessimistic, apocalyptic, nor negative. It is a best effort to describe the reality within which we operate. As we devise strategies for a thriving future, we better acknowledge our context. Research that ignores this context leads society astray, is damaging, if not dangerous.

Therefore, the question begs: what if Greta read GAIA? Greta Thunberg and her millions of colleagues have enabled a conversation that was overly tacit. They ask us to acknowledge the changing conditions of our planet, the way scientists have documented and measured. They want us to recognize the conclusion of many of those scientists: the high likelihood that humanity is trespassing beyond the safe operating zone of the Holocene. They beg us, because their lives literally depend on it, to concede that humanity is facing a huge, and well documented, gap between how much pressure our species is putting on the planet, compared to what the planet can renewably provide. They then invite us to take these conclusions seriously, do the math in terms of how much human pressure needs to be reduced, and act accordingly.

The corona crisis has shown that the teenagers can't keep this conversation open for long on their own. They need support. Therefore, as scientists and citizens, we need to ask ourselves: what should researchers, including those publishing in GAIA, offer if they want to help turn her "door-opening" into a lasting shift towards the transition humanity needs? In my view, every entry should be judged through the following lens: 1. Does the article acknowledge, at minimum, the scale and speed of the needed ecological transformation? Or if not, does it make a credible case that the scale and speed of the transformation can be minor to what I outlined above? 2. Is the insight the article delivers advancing societies' ability to pursue the transformation at the required speed and scale? Finally, if Greta and her generation read GAIA, what articles would you submit?

Mathis Wackernagel, GAIA Scientific Advisory Board

1 Tretter, F. et al. 2020. Ein Virus verändert unser Weltverhältnis. GAIA 29/2: 83–87, in this issue.

2 Cazzolla Gatti, R. 2020. The pangolin's revenge: SARS-CoV-2 did not emerge from a lab but from wildlife exploitation. GAIA 29/2: 79–82, in this issue.

3 For instance, in the 2019 special issue on *Sustainable Economy: Perspectives of Change* I could not find any reference to the speed and scale of change that is needed for maintaining the biosphere healthy and hospitable, let alone in ways that advance more dignity and wellbeing for all.

4 Global Footprint Network. 2019 edition of the *National Footprint and Biocapacity Accounts*. data.footprintnetwork.org (accessed June 23, 2020). Extrapolation from 2016 to 2020 is explained here:

www.overshootday.org/2020-calculation.

5 Wilson, E. O. 2016. *Half-Earth: Our planet's fight for life*. New York: Liveright.