



Sustainability in agri-food systems: transformative trajectories toward the post-Anthropocene

Markus Keck¹

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Background

Current agri-food systems cause severe environmental, socio-economic, and health-related problems. The ways how food and other agricultural goods are produced, marketed, consumed, and disposed of are leading drivers of environmental degradation and climate change (Campbell et al. 2017; Weis 2010). At the same time, large-scale profit-oriented agri-food corporations exploit economically underprivileged workers and thus help intensifying socioeconomic divides and deprivation in our societies, accompanied by increasing rates of malnutrition and ill-health through unbalanced diets (Gordon et al. 2017; Lindgren et al. 2018; Winson and Choi 2017). Against this background, business as usual is no longer an option. Change is needed, and this change must necessarily be based on bold theoretical thinking and practical economic transformation.

This Special Feature gathers scholars from a wide range of academic disciplines and provides them a space for presenting innovative empirical case studies and critical theoretical reflections that together help rethinking how sustainability in agri-food systems can be achieved. The essential idea is to illustrate possibilities of creating agri-food systems that foster biodiversity, provide involved practitioners with prestigious jobs and decent income, and enable consumers to access healthy diets at reasonable prices while reducing society's material and energy footprint. The presented papers will advance existing conceptual approaches, debate innovative practical solutions and stimulate new forms of thinking and doing to extend the debate about sustainability and to open up routes out of the Anthropocene as “human dominated geological epoch” (Lewis and Maslin 2015: 171).

Aims and scope

We start from the proposition to understand the Anthropocene as both a set of physiological phenomena and an existential crisis of modernity (Reisman and Fairbairn 2020). On the one hand, we are aware of the rapid rise in water use, fertilizer contamination, deforestation, and greenhouse gas emissions to be increasing the risk that self-reinforcing feedbacks push the Earth System toward a planetary threshold that, if crossed, could prevent the stabilization of the climate at intermediate temperature rises and lead to a much higher global average temperature than in any interglacial in the past 1.2 million years (Steffen et al. 2007, 2015, 2018). On the other hand, we understand that attributing global change to a universalized human “Anthropos” risks ignoring the role of structural inequalities along the lines of class, race, gender, and geography in producing these changes (Malm and Hornborg 2014). Singling out a species as irreversibly dominant might inhibit political action by naturalizing ecological crises, normalizing narratives of control as progress, institutionalizing human mastery, and reifying a false division between humans and the biophysical world of which they are a part (Moore 2017; Simpson 2020; Swyngedouw and Ernstson 2018). Against this background, we see the need to examine existing socio-technical imaginaries of how to solve the challenges of the Anthropocene (Jasanoff 2015; Nightingale et al. 2019) and to reflect upon possible other futures (Gibson-Graham 2008; Koretskaya and Feola 2020) to re-politicize future making and to open it up to public contestation (Knappe et al. 2019).

This special feature consists of papers that address at least one of the following questions:

1. How can we attain to a more context-sensitive understanding of socio-technical regime shifts and sustainability transitions (Geels 2018), which takes the individuality of particular niche-regime interactions into account and accentuates the agency of involved actors

✉ Markus Keck
markus.keck@uni-koeln.de

¹ Global South Studies Center, University of Cologne,
Classen-Kappelmann-Str. 24, 50931 Cologne, Germany

- as well as underlying power relations (Bui et al. 2016; Feola 2020; Ingram 2018)?
- How can we put the concept of circular economy (Ellen MacArthur Foundation 2013; Kirchherr et al. 2017) into action and what knowledge gaps remain to be bridged before we can think of “closing material loops” to ultimately decouple agri-food systems from finite resource consumption (Giampietro 2019; Koppelmäki et al. 2021; Zink and Geyer 2017)?
 - How can we practically gain from approaches that provide more fundamental critique of current agri-food systems, such as the concept of degrowth, which explores alternative forms of organizing economies beyond growth and capital accumulation (Demaria et al. 2019; Gerber 2020; Kallis et al. 2018), or more-than-humanism, which invites us to embracing the idea of conviviality and to horizontalizing the relations between humans, biota, and abiota (Beacham 2018; Krzywoszynska 2019; Sarmiento 2017)?
 - How can specific methods to quantitatively assess production and consumption systems, such as life cycle assessments (Cucurachi et al. 2019; Green et al. 2020; Notarnicola et al. 2017), be turned into practical use for building more sustainable agri-food systems?

To participate in the planned special feature, please send an abstract of maximum 300 words until Friday, 2 April 2021 to markus.keck@uni-koeln.de. Deadline for the submission of final papers is Friday, 30 July 2021. The special feature is scheduled to be published in issue 2 or 3 in 2022. Prior publication of accepted articles as Online First is possible.

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