

Dear Editor

I would like to thank the authors for revising their manuscript in response to the second round of reviewer comments. Having carefully read the latest version of the manuscript and the feedback provided by all reviewers across the two sets of reviews, I believe that some of the concerns raised have not yet been addressed sufficiently. Further (minor) revisions are necessary to address the following issues.

My main concern is with the financial system 'illustrative case study'. The discussion of the financial system has now been moved to this section of the manuscript – an option I had suggested – but the text covering three pages continues to be a sprawling discussion of problems of the financial system from a sustainability perspective and several proposed solutions at a rather general level. There is no clear focus on ethical or justice issues throughout – the link is weaker in some paragraphs than others, no clear logical structure to this section, and no clear link to PTPs. At a minimum, this section needs to be shortened with a clear focus on ethical and justice implications not of the current system overall, but of interventions related to a PTP agenda, i.e., the topic of the paper. Ideally, your definition of equity of justice – Gupta's Earth system justice – should be applied in both case studies, i.e., the case discussions should illustrate how existing or proposed or existing measures advance specific dimensions of justice or create new ethical dilemmas.

Response: **The case study of the financial system has been substantially overhauled and edited to focus on blind spots in the financial system and weaknesses in the current governance architecture and how alternative and neglected approaches have the potential to generate positive tipping points which simultaneously direct finance away from polluting activities and towards groups and regions most in need of finance. We now draw on the Gupta et al (2023) framework to ensure both justice dimensions and a focus on positive tipping points runs through this section.**

Second, the 'Implications for practice' section does not always identify the specific actors addressed. For example, individual researchers vs. research institutions and funders, any actors related to finance, fostering anticipatory governance (who?), and 'communicators'.

Response: **We have endeavoured to be more specific in noting the specific actors, not just sectors and have refined the writing**

Third, the whole manuscript would benefit from careful editing, considering (i) which arguments are needed for the paper and which ones merely related (esp. in the section on unintended consequences), (ii) the need for concision, and (iii) the placement of arguments in the manuscript to avoid repetition.

Response: **5 of the authors went through with this explicit aim in mind and made substantial reductions and we hope that the paper is now much more streamlined.**