

Earth Syst. Dynam. Discuss., author comment AC1
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Reply on CC1

Oliver López-Corona et al.

Author comment on "ESD Ideas: planetary antifragility: a new dimension in the definition of the safe operating space for humanity" by Oliver López-Corona et al., Earth Syst. Dynam. Discuss., <https://doi.org/10.5194/esd-2021-26-AC1>, 2021

Dear Richard Rosen,

Although we understand the points you pose, consider that as an "IDEAS" type of paper the manuscript should comply with some restrictions such as length and is intended to present innovative and well-founded scientific ideas **in a concise way** that have not been comprehensively explored. So this kind of paper, as far as we understand, is not intended to present well established consensual evidence but rather to open the discussion to a novel and potentially useful idea in the frontier of science.

As you clearly identified, the work covers some open unresolved issues and we have already tried to cover as in detail as possible without extending too much the manuscript, which is already long for an IDEAS paper. So we have put on the table the main arguments related with the central idea about Planetary Antifragility and point the reader to key literature to fill the gaps.

Of particular interest for you, as we can identify in the rest of the comment and that we consider resolve much of the questions:

Fragility-Antifragility: <https://peerj.com/articles/8533/> and in there ->
<https://www.hindawi.com/journals/complexity/2019/3728621/>

Complexity measures: https://link.springer.com/chapter/10.1007/978-3-642-53734-9_2

Thermodynamics, Entropy and Albedo:
https://link.springer.com/chapter/10.1007/978-94-017-9499-2_2

As we are about to respond to Karo Michaelian: We acknowledge that to communicate efficiently what we consider a novel and potential unifying idea the manuscript should go for a detailed writing revision, we have already started.