

## Comment to Author's Response

Feb. 2021

The authors made substantial efforts to improve the presented manuscript. I found most comments to be taken into account and major parts of the manuscript be revised. Especially figures were enhanced and their readability was substantially improved. Numerous tables were added, completing the research site and data descriptions. I am especially thankful for the photographs that were added to Fig. 2, 3, 4 and 5.

I would like to highlight, that the data repository was updated, as well. From my point of view it does now contain all needed data. However, the authors included more specific download links into the revised manuscript. My concerns regarding using URLs to reference data sources still hold. Additionally, the URLs still lack vital bibliographic information like the access date, authors or institution. I would still suggest to further describe the downloaded data properly (e.g. origin, units, aggregation level, quality control, support, licenses) and reference the source properly, so that users do not rely on URLs. Most of this info is already present in the manuscript and adding it to the data repository as well, should be straightforward.

I tried to retrace the download procedure. For the link on p.5 line 163, I ended up on a Chinese page, which redirected to the authority landing page, once switched to English language and thus the issues with URL persists. It would be great, as permanent URLs or DOIs don't seem to exist, if the authors could add the metadata about the downloaded data to the data repository, as well. From my point of view it doesn't make sense to forward to the original publisher of the data to find metadata in this case.

The URL on p. 5 line 172 now leads to the download page of the data product, however there are still literally hundreds of filter possibilities that one has to or can specify. At the same time, the overall ERA5 product has a DOI linked on that page, which resolves to a landing page, that presents a lot of metadata about the entire ERA5 dataset. My suggestion here would be to specify, which parts of ERA5 were exactly used (and how) and extract the metadata from the ERA5 landing page that applies and add it to the data repository.

For the link on page 6 line 181, the correct data product is found, however, almost 15 thousand satellite images are offered for download, which requires

authentication. Therefore, I would again suggest to add necessary metadata from the NASA website to the data repository.

All in all, I think it's just an additional table, or something comparable, that is missing in the data repository. It should give all the available, necessary metadata for the newly added datasets, making the repository usable on its own. The descriptions of the networks are already detailed and helpful. Just chapter 4 of the user information needs to be raised to the same level. Then, the URLs can be removed from the manuscript and replaced by a simple reference to the issuing institution. From my point of view, that would turn the already good data repository into a great one, just like the manuscript.

With kind regards,

Mirko Mälicke