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Dr. Yichun XieSustainability

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Dear Editors and Dr. Xie,

We write you to submit the attached work for consideration in Sustainability, for the special issue titled Sustainable Ecosystems and Society in the Context of Big and New Data. This is an original piece, and is not being submitted to or considered for publication by any other outlet. It is our earnest hope that this piece will aid in laying out the potential and challenges for using newly derived spatial information on climate relevant international aid - in conjunction with many existing, satellite-derived products - to better understand human-driven causal impacts on the carbon cycle. Substantively, this work was performed in conjunction with the World Bank's independent evaluation group to analyze the effectiveness of it's environmental safeguards, and beyond the academic implications this piece should also be of considerable interest to a broader policy audience that is currently reliant on either bottom-up or "gut instinct" approaches to large-scope strategic decisions regarding aid allocation.

Relatively little attention has been given to the efficacy of climate-related aid, especially at the global scale. The dataset presented here represents one of the first catalogues of where - and what type - of aid has been flowing to the developing world, enabling new types of causal analyses than have been historically possible. We further implement a novel methodological strategy that allows for the estimation of impacts that may vary over geographic space - a necessity in the context of global-scope analyses. Further, we highlight the nascent nature of research into globally-varying heterogeneous effects, and provide insight into potential next steps.

Thank you for your time, your many contributions to the field, and for your consideration,

Dr. Daniel Miller Runfola