Dear Editors,

Please find attached a manuscript describing an analysis we have carried out to quantify the beneficial global warming impact of emission reduction and biomass recovery that would occur if livestock products were eliminated from the human diet.

Based on publicly available livestock production and emissions data, and recently published analyses of the biomass recovery potential of land currently used in animal agriculture (Hayek et al, 2021), we conclude that **a global transition to a plant based diet would stabilize greenhouse gas levels for 30 years and offset half of anthropogenic emissions through the rest of this century**. The magnitude and importance of the potential impact has been vastly underestimated, and virtually dismissed as a meaningful climate solution In fact, our analysis shows that it is by far the most immediately impactful strategy at hand.

We believe our paper will be of great interest to the diverse audience of PNAS as it addresses an important topic (the imminent destruction of our planet), uses simple methods and models that can be widely understood, and highlights the underappreciated and therefore largely unrealized potential for dietary change to play a primary role in the global response to climate change.

We expect this work to stimulate extensive discussion, and hope that its publication in PNAS will bring it to the attention of the public and policymakers worldwide as we enter the last decade where we can have a reasonable hope that climate interventions will avoid catastrophe.

Members of the editorial board who would be appropriate for this manuscript include Pamela Ronald, Diana Liverman, Ruth DeFries, William Clark, and Gregory Asner.

Sincerely,

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