

Going Net Zero: Defining the Moral Permissibility of Carbon Dioxide Removal

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Abstract: Implementing carbon dioxide removal (CDR) technologies to remove carbon from the atmosphere is necessary for meeting the net zero emission targets set by many countries after the Paris Agreement in 2015. In this paper, we suggest a framework to deal with three dangers arising if the contribution of CDR as part of net zero is not specified: first, the negative side-effects of large-scale implementation of CDR are not sufficiently considered; second, CDR will not be available to the extent assumed in climate models; and third, the potential availability of CDR may disincentivise efforts to reduce emissions. We argue that a target for CDR separate from net zero emission targets is needed and propose a framework for defining the extent to which CDR is morally permissible for reaching net zero targets. Our framework identifies three levels of emissions at which different mitigation duties arise and the moral permissibility of CDR varies. We show that (i) current high emissions, exceeding the quantity of emissions individuals need to appear in public without shame, should be reduced and cannot permissibly be addressed by CDR. (ii) Emissions that individuals need to make to appear in public without shame should be mitigated by structural efforts, though CDR is conditionally permissible. (iii) Using CDR is morally permissible and even obligatory for residual emissions to achieve net zero emissions. Likewise, the carbon debt of industrialised countries must be taken into consideration.

Keywords: *mitigation, climate ethics, geoengineering, carbon budget.*

Theme: The Ethics of Technology

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