Carbon Capture and Storage Reflection

***Ethical Considerations*: How do we balance the necessity of carbon capture and storage (CCS) as a tool for mitigating climate change with potential environmental and social risks associated with CO2 storage, such as induced seismicity, groundwater contamination, or displacement of communities near storage sites?**

Carbon capture and storage, like all emerging technologies that help with climate change, are becoming necessary components to mitigating the negative affects of anthropogenic climate change. However, the environmental and social risks of storing carbon dioxide underground must be considered. Careful thought on the potential geological formations for storage is key to ensuring the risk of seismicity and groundwater contamination are minimal. Similarly, communities need to be made aware if a storage site has been selected and slated for use within a certain radius so that they may have time to take action if there are concerns about their safety. In the mean time, other ways of utilizing captured carbon dioxide should be considered. For instance, one startup called *Savor* is using captured carbon from the air to make synthetic butter by combining it with oxygen and hydrogen into a fat and emulsifying it with water.[[1]](#footnote-1) Unique and innovative methods to utilize these emissions as a resource for economic value will be increasingly necessary to make CCS more widespread and feasible.

1. Margherita Bassi. (2024). “New ‘Butter’ Made from Carbon Dioxide Tastes Like the Real Dairy Product, Startup Says.” *Smithsonian Magazine.* <https://www.smithsonianmag.com/smart-news/new-butter-made-from-carbon-dioxide-tastes-like-the-real-dairy-product-startup-says-180984717/>. [↑](#footnote-ref-1)