



EXECUTIVE SUMMARY

Removing Forward

Centering Equity and Justice in a
Carbon-Removing Future

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Carbon180

ABOUT CARBON180

Carbon180 is a new breed of climate-focused NGO on a mission to fundamentally rethink carbon.

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This report is only possible because of conversations with and input from environmental justice advocates, science practitioners, and community leaders at the forefront of establishing a just and equitable vision for climate action. We express our sincerest thanks to those who are dedicating their time and energy to advancing this crucial work.

GET IN TOUCH

To learn more about any of the recommendations in this report, email policy@carbon180.org.

Before many environmental organizations began sounding the alarm on climate change, environmental justice (EJ) groups had been warning the public that pollution was harming Black, Indigenous, and other communities of color and low-income communities.

Activists and researchers have shown how these groups face disproportionate levels of exposure to dangerous chemicals, poorer air and water quality, and greater risk from the devastating impacts of natural disasters. Climate change will only exacerbate these conditions, deepening these inequities locally and globally. Despite this, climate efforts to date have largely ignored legacy pollution and non-climate impacts that harm these communities in favor of a narrow focus on mitigating greenhouse gas emissions.

There's a real risk that carbon removal solutions — a necessary tool to meet climate goals — will follow a similar path of sustaining extractive relationships with disadvantaged communities. It will be incredibly important in the coming years to identify how to scale up carbon removal in a way that aligns with EJ priorities and distributes its benefits. Fortunately, the field is still in an early enough stage to integrate equity and justice into research, development, and deployment.

The Biden administration signaled a strong commitment to EJ by releasing a series of executive orders (EOs), establishing a number of advisory councils, and appointing justice advocates to high-profile positions across the government. Similarly, there has been definitive interest in pursuing carbon removal across land- and technology-based solutions from both Congress and the administration. However, there remains tension within the government on the role of carbon removal as it relates to EJ. To date, many feel that the benefits to disadvantaged communities have not been demonstrated and are therefore not supported. Establishing a coherent and cohesive federal carbon removal strategy that addresses these important concerns will be key to scaling up these technologies and practices in a timely, durable, and sustainable manner.

At Carbon180, we have been thinking deeply about the nexus of carbon removal and EJ. Our Environmental Justice Initiative was founded on 1) the moral imperative that carbon removal not only addresses carbon emissions but also improves the well-being of communities, and 2) a growing recognition of the need to center EJ within the carbon removal field to gain community acceptance and deploy projects that are supported. Ultimately, our goal is to advocate for the integration of equity and justice in the carbon removal field and ensure that we are pursuing policy development and advocacy opportunities that are in line with justice objectives. Through our initiative, we have begun to identify key guiding principles that can begin the work in supporting a more equitable carbon removal field:

Guiding principles for just carbon removal

The graphic consists of five vertical bars of different colors, each containing a numbered principle. The bars are: 1. Green, 2. Blue, 3. Orange, 4. Brown, and 5. Teal.

- 1.** The benefits of carbon removal solutions must be equitably distributed.
- 2.** Public engagement must be robust and involve seeking input from groups throughout the development and deployment of carbon removal solutions.
- 3.** Safeguards are needed to ensure adverse impacts are not borne by disadvantaged communities.
- 4.** The socioeconomic consequences and distributional impacts of carbon removal solutions need to be evaluated alongside their technological and economic attributes.
- 5.** Carbon removal is seeking to address a challenge that is both local and global, and therefore should incorporate justice across temporal and spatial scales.

The greatest opportunity to influence carbon removal is through the federal government. The government can address major information gaps, establish robust safeguards for project implementation, strengthen community-government engagement, and hold actors accountable through legislative and agency actions. This report shares a series of recommendations that span land- and technology-based approaches and are organized by labor and economic opportunities, outreach and engagement, technical and financial assistance, research, development, and deployment (RD&D), and regulations.

Federal policy recommendations to support just carbon removal deployment

LABOR AND ECONOMIC OPPORTUNITIES



- 1.** Increase equitable workforce development opportunities across land- and technology-based carbon removal solutions
- 2.** Direct DOE and EPA to assist in creating revenue streams and co-design strategies for communities housing technology-based carbon removal projects
- 3.** Establish local, safe, and high-quality job opportunities

OUTREACH AND ENGAGEMENT



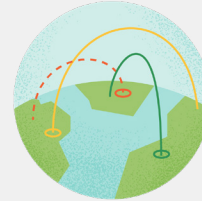
- 4.** Promote local capacity building in underserved communities
- 5.** Strengthen community-government engagement to solicit feedback and input from underserved communities

TECHNICAL AND FINANCIAL ASSISTANCE



- 6.** Address racial and economic disparities in accessing federal assistance programs among producers and forest landowners
- 7.** Leverage federal financial and technical assistance to advance equitable technology-based carbon removal projects that meet community needs

RESEARCH, DEVELOPMENT, AND DEPLOYMENT



- 8.** Strengthen international collaboration on carbon removal RD&D
- 9.** Invest in social science research for technology-based carbon removal
- 10.** Increase carbon removal research collaboration and capacity building with mission-driven universities, two-year institutions, and underrepresented students

REGULATIONS



- 11.** Establish long-term monitoring requirements for geologic storage
- 12.** Establish a pipeline development and permitting task force
- 13.** Improve Class VI wells permitting

These recommendations are just a start to foster stronger dialogue and action on carbon removal and EJ. Central to any effort must be the voices and demands of underserved groups that have long been left out of the benefits from previous policy action, as well as those who will be directly impacted. As Morrow et. al. (2020) shared, “Not all carbon removal is created equal in terms of social, economic, and environmental impacts, and nuanced positions are needed to distinguish better technologies, practices, projects, and policies from worse ones. ... The social, economic, and political contexts in which people implement [carbon removal] will affect its acceptance and impacts.” It’s not just about carbon removal, but also about the broader system and society in which carbon removal will be deployed. It’s not enough to simply transition from fossil fuels into a low-carbon but equally unjust society; we must instead leverage policy to reroute power to the most disenfranchised. That is truly the vision of an equitable society that removes more carbon than it emits.

To learn more, visit Carbon180.org.