

Equity, justice, and carbon dioxide removal (CDR)

 Carbon180

What is environmental justice?

History of Environmental Justice Movement

- Use of the term 'environment' was very intentional
- Early cases on 'environmental racism' tied to civil rights
- Pivotal shift in the movement in 1990
- Climate change quickly recognized as priority for EJ orgs



Types of Relevant Justice for CDR

Reparative

Repair previous harms

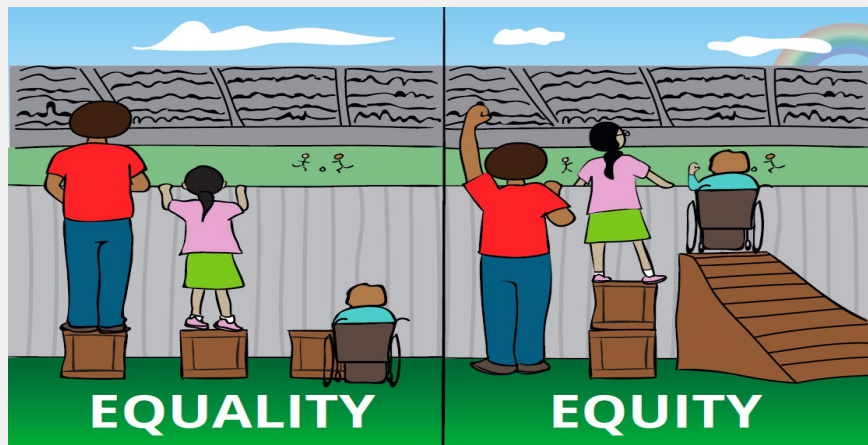
Distributive

Equitable allocation of resources, risks, and benefits

Procedural

Fairness in the decision making process

Setting the stage



Benefits and harms can be different for each community



Important to remember this is not a monolithic group

Why we need a justice and equity centered approach

- Carbon removal is not a political or neutral
- Carbon removal is tied up with extractive industries
- To create a just and equitable society
- To ensure robust and meaningful participation in policy and research design, implementation, and decision-making



Key Concerns from EJ Groups

“CDR can become a distraction from meaningful emissions reductions efforts”

Things to consider:

- Need both as outlined in the IPCC report!
- Important to remember that not meeting mid-century climate goals disproportionately impacts frontline communities
- **Create both reductions AND removals targets and track them separately**

Key Concerns from EJ Groups

“Extractive industries seem interested in CDR which makes me weary”

Things to consider:

- Need to shape the values and demands of CDR proactively, not reactively
- Invest in high - quality removals
- Assess the end use of the captured carbon
- Support innovative ownership models and ideas
- Promote transparency (e.g data)

Key Concerns from EJ Groups

“I’m uncertain about the non - climate trade - offs and benefits of CDR”

Things to consider:

- Need to involve communities in establishing the problems and assessing if or how CDR can address them
- Assess the quality and frequency of community engagement efforts in a company’s plans:
 - Language justice
 - Local hiring
 - Evidence of integrating feedback

Key Concerns from EJ Groups

“There’s a real lack of diversity or representation in most climate action spaces. I don’t see me represented in decision - making spaces”

Things to consider:

- Need to promote Diversity, Equity, Inclusion (DEI) efforts for who is creating technologies or implementing practices
- Request diversity/demographics statistics of the company
- Assess the composition of the board of directors or advisors

Key Considerations for Just Carbon Removal

What are the environmental and public health impacts?

Research suggests that air & water quality, land use and ecological integrity, impacts to human health and safety, and energy needs are priority topics

What are community values and priorities?

Community surveys can illuminate priorities like air & water quality, job creation, wealth creation, and other non-climate benefits

What is the process to empower the community in project development and implementation?

Scaling carbon removal must empower communities to meaningfully engage and oversee decision-making surrounding the development and deployment of carbon removal projects

Who stands to benefit from the project?

Benefits and resources from carbon removal projects must be equitably distributed in deployment processes

Guiding Principles as areas for opportunity

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.

What have we learned?



Defining “EJ” is
difficult:
different
considerations
across scales

Assess CDR on
a project - by -
project basis

Support
capacity
building of EJ
orgs and local
communities

Implementation
of equity and
justice
considerations
should begin at
the initial stage

What are the opportunities for disadvantaged communities?

Job creation and economic revitalization

Healthy equity

Increased resilience

Support a broader just transition

What are the challenges/risks for disadvantaged communities?

Lack of public awareness and education

Lack of resources and political capital

Legacy of discriminatory policy practices

Carbon180's current EJ workstreams

Project

Details

Goal:

EJ Regranting

Carbon180 is regranting \$1M to 3 EJ organizations over 2 years for them to learn about CDR and conduct their own CDR projects

Build the level of awareness and education on CDR across EJ orgs as well as the number of EJ orgs doing CDR work

DAC Hubs Implementation

Carbon180 is working with EJ groups, NGOs, and DOE to ensure equitable and just implementation of the \$3.5B DAC Hubs program

Support the creation of a “gold standard” for DAC that proves DAC can deliver tangible on - the - ground benefits to communities

XPrize

Carbon180 is working with the XPrize carbon removal competition to ensure equity and justice are integrated into selected projects

Increase the understanding of environmental justice across CDR project developers so they can build just projects that deliver benefits

Resources

- [Removing Forward](#)__, Carbon180
- [From the Ground Up](#)__, Carbon180
- [Environmental Justice Explained](#)__, Grist
- [Environmental and Climate Justice and Technological Carbon Removal](#)_____, Batres et al. 2021
- [Principles for Thinking about Carbon Dioxide Removal in Just ClimatePolicy](#)_____, Morrow et al. 2020
- [Carbon Dioxide Removal and Environmental Justice](#)_____, American University
- [Carbon Removal and Environmental Justice](#)_____, Grist
- [Carbon Removal Can and Must be Part of the Climate Justice Agenda](#)_____, Vanessa Suarez
- [Charting a Path to Just Direct Air Capture Hubs](#)_____, Data for Progress & National Wildlife Federation