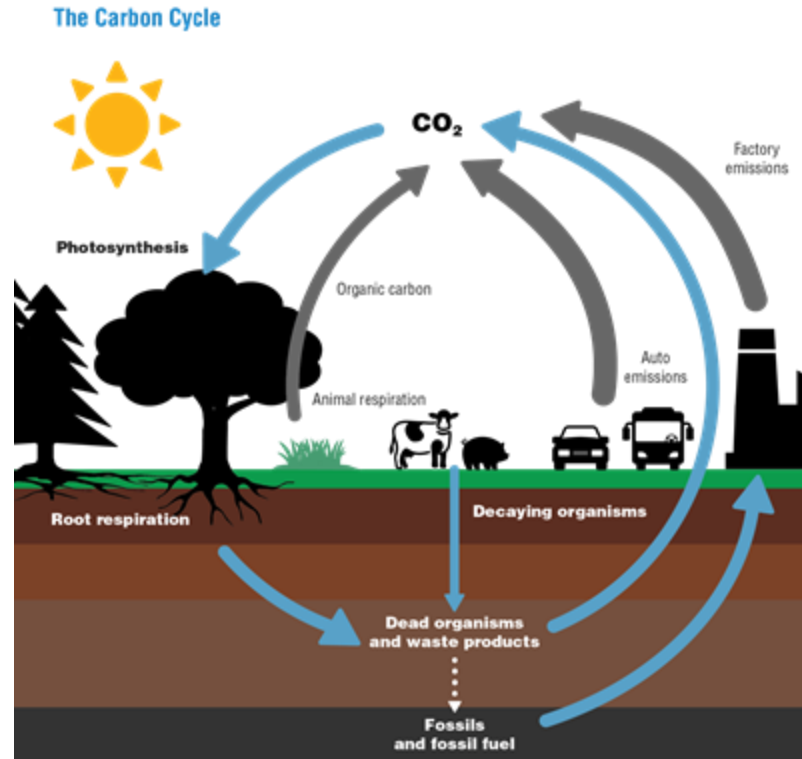


Nature-Based Solutions and the Carbon Dioxide Removal Portfolio

COP30 2025
Allison Hilliard



The Natural Carbon Cycle



What are Nature-Based Solutions (NBS)?

Restoration, conservation, and land management actions that increase net carbon sequestration or reduce greenhouse gas emissions in natural and working lands. [AB 1757](#) (Garcia, 2022)



25%

Amount of CO₂ emissions
absorbed by the ocean



15.6

B Tons of CO₂ captures by
forests each year globally



2,400

Gt of C in the uppermost
2 m of soil globally



Nature-Based Solutions on the Global Stage

2022 Kunming-Montreal Global Biodiversity Framework

- 190 countries signed onto this framework in 2022 to protect 30% of the world's land, coast, marine, and inland water by 2030
- Worldwide commitment to protect and conserve ecosystems - crucial to scaling NBS worldwide

Why Are Nature-Based Solutions Necessary?

Affordable



Readily Scalable



Reduce Peak Temperature



Time to Research CDR Strategies



Enhance Community Resilience



Supports Other Sustainability Goals



Nature-Based Solutions as Carbon Dioxide Removal (CDR) Pathways



Nature-Based Solutions as Carbon Dioxide Removal Pathways



What has California Done?



Targets set by [AB 1757](#)



Funding via [Cap & Trade](#)

What About...?

Concerns with NBS.



Permanence and Measured, Reported, & Verified (MRV)

Permanence

- Concern that CO₂ stored in plants can be easily lost through wildfire, drought, and disease
- Ex. LA Wildfires

MRV

- Challenging due to the complexity of ecosystems and need to account for site specific conditions

Addressing Concerns with Nature-Based Solutions

- Stewardship of Natural Lands

- Wildfires - prescribed burns, fuel breaks, defensible space can all help reduce impact of wildfire

- Credit Stacking

- Purchasing multiple short term carbon credits
- Deploying multiple NBS projects
 - cover crops, no till, and agroforestry all on one farm

- Buffer Pools

- Project owners do not sell all carbon credits, some are set aside to be used in the case of wildfire, disease etc.
- Must account for regional differences

- Role in a CDR portfolio

- We need all strategies to effectively scale this industry. NBS can support that while also creating resilient communities

What next?

How to incorporate NBS into
policy and the CDR portfolio



Nature-Based Solutions in the Carbon Dioxide Removal Portfolio and Policy

Scale nature-based solutions while researching nascent CDR technologies

Support a portfolio of CDR approaches that include nature based, hybrid, and industrial CDR solutions

Identify how nature based solutions can work alongside other CDR approaches
i.e. biochar application along with regenerative agriculture practices

Set separate targets for emissions reductions, NBS, and industrial CDR



Questions?



Thank You!

Contact our Carbon Drawdown Team!

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