CONGRESSIONAL BRIEFING

Natural Climate Solutions: A Win-Win Solution for Our Environment and Our Economy

Materials will be available at:
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Friday, May 07, 2021
About EESI...

**NON-PROFIT**
Founded in 1984 by a bipartisan Congressional caucus as an independent (i.e., not federally-funded) non-profit organization

**NON-PARTISAN**
Source of non-partisan information on environmental, energy, and climate policies

**DIRECT ASSISTANCE**
In addition to a full portfolio of federal policy work, EESI provides direct assistance to utilities to develop “on-bill financing” programs

**SUSTAINABLE SOCIETIES**
Focused on win-win solutions to make our energy, buildings, and transportation sectors sustainable, resilient, and more equitable
...About EESI

**HILL BRIEFINGS**
Video recordings and written summaries of Congressional briefings

**CLIMATE CHANGE SOLUTIONS**
Bi-weekly newsletter with all you need to know including a legislation tracker

**SOCIAL MEDIA (@EESIONLINE)**
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**FACT SHEETS**
Timely, science-based coverage of climate and clean energy topics
Natural Climate Solutions and the Economy

Catherine Macdonald
North America Natural Climate Solutions Director
Environmental and Energy Study Institute 5/7/2021
Overview

- Natural Climate Solutions (NCS) Basics
- Economic Benefits of NCS
- Federal policies and programs that can help scale NCS
THE IMPACT

Nature
Range Shifts
Extinctions
Ecosystem conversions

People
Health
Economy
Infrastructure
We Can’t Get To 1.5° Without Nature.
The next decade will be pivotal
The carbon cycle
Three Types of Actions

PROTECT
intact ecosystems

RESTORE
native ecosystems

IMPROVE
Management practices
Natural climate solutions can more than double the contribution from the US land sector.

• Forest and wetland restoration projects already support over 220,000 jobs in the U.S.

• Every $1 million invested in reforestation and sustainable forest management supports nearly 40 jobs
Planting more trees in low-income and communities of color neighborhoods:

- Creates new jobs
- Reduces energy costs
- Reduces chronic respiratory conditions and heat-related illnesses
- Improves mental health

Economic Benefits & Equity
• Soil health management practices increase net income for farmers
  $52/acre corn
  $45/acre soybeans
• Adding trees to row crops provides greater income stability improving the economic resilience of farms
• Improved forest management can increase revenue while increasing the carbon captured and stored on family forest lands.
Economic Benefits from Nature

- Coastal wetlands provide storm protection valued at $23.2 billion per year
- Green stormwater infrastructure lowers capital costs for developers compared to gray infrastructure.
- Drinking water treatment costs decrease by 20% for every 10% increase in forest cover in source watersheds
Federal NCS scaling strategies

- NCS Science & Technical Assistance for landowners and Improvements
- Financial Incentives for Natural Climate Solutions
- Investments in federal land management
- Support to help scale voluntary carbon markets
- Incentives for state and local smart growth policies
- Workforce development programs that target forestry and ecological restoration
Thank you

For more information:

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NATURAL CLIMATE SOLUTIONS: A WIN-WIN SOLUTION FOR OUR ENVIRONMENT AND OUR ECONOMY
SAVING THE LAND THAT SUSTAINS US

- Protecting farm and ranch land
- Promoting sound farming practices
- Keeping farmers on the land
The Role of Soils

We have lost more than half of the organic carbon originally stored in U.S. soils.

The soil organic carbon pool is up to 4X the amount of carbon stored in the vegetation on land.

Rebuilding soil health is crucial to sustain agriculture.
Co-benefits of Cover Crops & No-till

- Soil temperature and moisture regulation
- Winter and early season weed suppression
- Reduced soil loss from wind and water
- Increased diversity of soil biological communities
- Improved soil structure
- Nutrient capture and availability
Cover Crops on the Farm!
Soil Health Case Studies

PARTIAL BUDGET ANALYSIS

• Estimate the net economic benefits farmers have experienced from investing in soil health practices (e.g., no-till, strip-till, cover crops).

USDA’S NUTRIENT TRACKING TOOL & USDA’S COMET-FARM TOOL

• Quantify the water quality and climate benefits of these practices.
Carbon Markets

Open to all

Design ed for Perme ance

Fair to Farmer s

Transiti onal for the Econo my

Real & Verifiable
Cover Crop Initiative

1. Establish a national goal
2. Increase cover crop focus within NRCS programs
3. Expand on-the-ground TA
4. Additional research and data
5. Crop insurance role in adoption
Crop Insurance Premium Discount Program

Leveraging State, Federal and Private funding

Innovative, efficient approach to accelerating cover crops on a big scale

IF COVER CROPS WERE PLANTED ON 25% OF ROWCROP ACRES IN ILLINOIS, IT WOULD BE EQUAL TO REMOVING 633,323 PASSENGER VEHICLES FROM THE ROAD FOR A YEAR
NUTRIENT, SEDIMENT, & GHG REDUCTIONS FROM THE 2021 FCSS PROGRAM

- 3,612 TRUCKLOADS of sediment kept out of waterways
- +167,000 lbs of NITRATE-N kept in the field
- ~15,000 lbs of PHOSPHORUS kept in the field
- The carbon dioxide equivalent of removing 5,359 PASSENGER CARS FROM THE ROAD
Farmland Protection as a Climate Tool

✓ 11 million acres lost or threatened between 2001-2016

✓ Agriculture is necessary for achieving climate goals

✓ When farmland is developed, we lose both:
  ✓ Existing carbon
  ✓ Future sequestration potential

✓ Development disproportionately impacts the nation’s best land, pushing production to marginal lands

✓ Low-density residential is associated with higher emissions than urban high-density
SAVING THAT SUSTAINS THE LAND US!

www.farmland.org
ROB SHAUT
DIRECTOR OF TREE OPERATIONS / CASEY TREES
ISA CERTIFIED MA-6185A
WASHINGTON, DC
HISTORY / 1999
WASHINGTON POST
ARTICLE
GOAL / 40% TREE CANOPY BY 2032
TREES PLANTED / YEAR
PROGRAMS
INCOME AND DEMOGRAPHICS

Annual Income

Families Below Poverty Line

People of Color
OUTCOMES
RESULTS
**ECONOMIC VALUE**

- **100 mature trees remove 53 tons of carbon every year**
- **100 mature trees catch 140,000 gallons or rainwater every year**
- **Evergreen windbreaks can save 5% on heating costs**
- **Shade trees can save 56% on air conditioning costs**
- **Healthy mature trees add 1% to house value and specimen trees can add 7%**
Appraised Value for a 22” Willow Oak

Appraised Value = Basic Tree Cost X Species% X Condition % X Location %

$26,839.74 \times 90\% \times 68.75\% \times 80\% = $13,286

Appraised value = $13,300.
What did you think of the briefing?

Please take 2 minutes to let us know at:
www.eesi.org/survey

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