America’s forests and forest products are a proven carbon sequestration and storage “technology” to provide the negative emissions we need to slow climate change. Today, U.S. forests and forest products annually sequester and store almost 15% of U.S. carbon emissions from burning fossil fuels. New research suggests we could nearly double this natural carbon capture with the right actions. Best of all, this climate action through forests will build on the nearly 3 million jobs in America’s forest sector and bring broad co-benefits to our communities, from clean air and water to wildlife and outdoor recreation.

The Forest-Climate Working Group (FCWG) was founded in 2007 to provide a unified voice across the U.S. forest sector that can help America capture this remarkable opportunity. Our member organizations reflect the wide diversity of actors who help to conserve and manage America’s forests every single day: private landowners, forest products companies, state foresters and other government agencies, forestry, conservation and wildlife non-profits, carbon finance, and academic researchers.

“Policymakers can help grow the powerful climate solutions that are in America’s forests”
This platform outlines how policymakers can help private forest owners and public land managers grow the powerful climate solutions in America's forests and forest products while delivering other environmental and economic benefits. Our recommendations fall in four key areas:

**Goal 1: Maintain and Expand Forest Cover**

More forests equate to more carbon being sequestered. That is why the foundation for forest carbon mitigation is to maintain the forest cover that we have, and to expand forests back into places where they have been lost to events like wildfire and clearing for agriculture. This includes expanding urban forests. Within this goal we provide diverse recommendations that advance conservation of private forests, including tax policies and markets supportive of private ownership. We also provide recommendations to expand forest cover on public and private land, including in cities, through diverse policy catalysts for reforestation and afforestation.

**Goal 2: Improve Forest Practices for Carbon, Adaptation, and Resilience**

U.S. forests offer cost-effective and expandable carbon sequestration and storage. But we can only realize this potential if we are able to keep forests healthy and resilient in the face of rapidly expanding climate change impacts like intensified threat from drought, pests, disease, and wildfire. That means that private landowners and public land managers alike need to identify and implement the right forest practices that support strong carbon sequestration, including storage in forest products, while also addressing forest health issues that are worsening with climate change. Within this goal we identify policy mechanisms to help landowners take these needed actions, including financial incentives.

[ForestClimateWorkingGroup.org](http://ForestClimateWorkingGroup.org)
Goal 3: Advance Markets for Forest Carbon, Forest Products, and Skilled Labor

Robust markets for forest products can slow the conversion of forests to non-forest uses, providing a foundation for success in Goal 1, and help drive the needed practices described in Goal 2. Within this goal, we describe policy measures that can advance market-based approaches to: a) Encourage private landowners to accelerate carbon sequestration and storage as part of their management objectives; b) Stimulate increased use of forest products to leverage their potential to drive effective forest management, store carbon and take the place of more energy-intensive materials; and c) Foster strong economic opportunity, job growth, workforce development, and career pathways in the forest sector.

Goal 4: Enhance Climate Data and Applied Science

All of the activities and approaches described in Goals 1-3 require good scientific information delivered to the right users and decision makers. This includes baseline forest data through the U.S. Forest Service Forest Inventory and Analysis Program that characterizes forest carbon stocks and helps illuminate fluxes and trends. Providing applied scientific information developed through forest-climate research, such as climate-driven threats to forests as revealed by vulnerability assessments, is also valuable—especially when delivered through effective and efficient structures like the USDA Climate Hubs. Within this goal we describe how policies can advance the data and applied science tools most relevant to climate efforts across America’s forest sector.
Let’s Get to Work!

It is imperative that policymakers institute proactive policies and investments that will sustain and grow carbon capture and resilient storage in America’s forests and forest products. The Forest-Climate Working Group is eager to work with interested lawmakers and staff to advance these goals. We have provided below a set of policy options that align with these goals, and the FCWG stands ready to share our experience and perspective, building on these ideas to help craft long-term policy solutions.

Endorsing Members of the Forest Climate Working Group:

ACRE Investment Management, LLC
ACRE Investment Management LLC

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President & CEO

American Forests
JAD DALEY
President & CEO

Binational Softwood Lumber Council
BSLG Binational Softwood Lumber Council

Coalitions & Collaboratives, INC
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Forest Landowners Association
SCOTT JONES
CEO

Environmental Defense Fund
Alexandria Ann Matthews, MD
CEO

Forest Stewards Guild
ALEXANDER ‘ZANDER’ EVANS, PhD
Executive Director

Green Diamond Resource Company

Half the dry weight of wood is carbon that was sucked from the atmosphere by growing trees.
### Endorsing Members of the Forest Climate Working Group: (cont.)

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<th>Organization</th>
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<td>Hancock Natural Resource Group</td>
<td>ANDREW BOWMAN</td>
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<td>Hardwood Federation</td>
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<td>Land Trust Alliance</td>
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<td>National Alliance of Forest Owners</td>
<td>DAVE TENNY</td>
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ForestClimateWorkingGroup.org
Goals & Policy Options

Goal 1: Maintain and Expand Forest Cover

CLICK HERE to jump to the Landowner Tax Credit for Private Forest Carbon Actions section »
CLICK HERE to jump to the Remove the Cap on the Reforestation Trust Fund section »

Private Forest Conservation:
- Retain or enhance tax policies to retain working forests including but not limited to:
  - The current federal capital gains tax treatment of timber income.
  - The permanent federal tax credit for conservation easements on working forests.
- Enhance existing funding and policies for retaining private forests, including but not limited to:
  - USFS Forest Legacy Program.
  - USFS Community Forest program.
  - Including dedicated funding levels within the Land and Water Conservation Fund for USFS and DOI acquisition and easements (e.g. national parks, refuges, relevant BLM units).
- Provide market-based incentives for the purchase of easements and other interests in land for forests of high carbon value at risk of conversion (assuming a cap and trade or carbon tax policy).

Private Forest Reforestation:
- Maintain the existing federal tax deduction for replanting after harvest.
- Maintaining Conservation Reserve Program authority and funding to support reforestation of marginal or abandoned agriculture land.

Public Forest Reforestation:
- Increase appropriations for reforestation through USFS/Vegetation and Watershed Management account.
- NEW: Lift or eliminate the cap on the Reforestation Trust Fund.
- NEW: Grant the USFS authority to implement post-fire reforestation treatments for up to three years on lands unlikely to recover naturally – similar to the Burned Area Rehabilitation program at Department of Interior.
- NEW: Establish a new federal matching grant program for states, local governments, tribes and NGOs to implement climate-informed reforestation.

Expand Urban Forests:
- Increase funding for the USFS Urban and Community Forestry Program.
- NEW: Establish a new matching grant program, prioritized for underserved cities and neighborhoods, to plant urban forests as a complement to the technical urban assistance provided by USFS through the Urban and Community Forestry Program.
**Goal 2: Improve Forest Practices for Carbon, Adaptation and Resilience**

CLICK HERE to jump to the New Forest Conservation Easement Program section »

**Private Forests:**

- Increase funding for forest conservation programs that help landowners improve practices for forest carbon, adaptation and resilience, and require federal agencies to align and focus the use of funding on achieving these outcomes. Programs include but are not limited to:
  - Environmental Quality Incentives Program
  - Conservation Stewardship Program
  - Regional Conservation Partnership Program
  - Forest Stewardship Program
  - USFS Landscape Scale Restoration Program

**Public Forests:**

- Increase funding and expand authorities for USFS management and restoration activities on federal lands that improve forest carbon, adaptation and resilience outcomes both on federal land and across boundaries, including:
  - Collaborative Forest Landscape Restoration Program
  - Good Neighbor Authority
  - Hazardous Fuels Reduction and Vegetation Management
  - Watershed Management

- **NEW:** Establish a grant program to facilitate restoration of forest lands by federal, state, local, native and tribal and NGO actors.
- **NEW:** Incentivize climate-informed active forest management for resilience and reduced wildfire risk through:
  - Federal grants to states for updating natural hazard mitigation plans and prioritizing active management on federal forest lands identified in state plans as being at high risk for wildfire.
  - Prioritizing restoration practices with demonstrable carbon mitigation and resilience benefits, such as fire risk reduction within the USFS Hazardous Fuels Reduction and Vegetation and Watershed Management appropriations accounts.
Goal 3: Advance Markets for Forest Carbon, Forest Products and Skilled Labor

CLICK HERE to jump to the Low Carbon Footprint Building Tax Credit* section »

Forest Carbon Markets:

- Provide tax incentives that maintain and improve carbon beneficial forest management, including but not limited to:
  - Maintain existing forest management federal income tax deductions.
  - NEW: New tax incentives that provide credits or deductions for measurable forest carbon benefits.
- NEW: Provide policy mechanism to enable private capital, public funding, or a combination of both to finance or create tradeable credits for forest activities that measurably increase the forest carbon sink through carbon sequestration and storage. This could be connected to existing federal or state conservation programs, new federal funding or an offset program.

Forest Products:

- Invest in forest product research, innovations and demonstration projects to expand existing markets and support new market and product development; enact policy that promotes increased use of forest products, and provide financial incentives that drive increased wood utilization. For example:
  - Increase federal funding for education and technical assistance for architects and engineers to use wood in building construction through programs such as WoodWorks.
  - NEW: Encourage wood building materials in federal buildings and federal programs that support building construction.
  - NEW: Encourage states to expand wood use promotion and construction projects.
  - Increase funding for the USFS Wood Innovation Grants program to stimulate new product development, product improvement, new forest product uses, and new or expanded forest products markets.

Skilled Labor:

- NEW: Improve and invest in workforce development and training programs, such as AmeriCorps, and pre-employment programs that link underserved urban populations with urban forestry careers.
- NEW: Address technical issues in Department of Labor regulations and occupational codes that hamper forest sector growth.
Goal 4: Enhance Climate Data and Applied Science

CLICK HERE to jump to the Strengthening the Forest Inventory and Analysis Program section »

Policy options:

- Fund the U.S. Forest Service Forest Inventory and Analysis Program at a level that will provide robust forest carbon stocks data and provide direction for enhancing such data collection.
- Increase funding for research in:
  - Advanced wood products for building construction and other forest products with significant embodied carbon potential.
  - New products and life cycle analysis efforts that help increase understanding of the carbon benefits of wood use.
- Require land management research programs to align planning and investments in research that advances adaptation and resilience strategies for all forest ownerships, particularly to address wildfire, insects and disease.
- Increase federal investment in research, planning and monitoring critical for climate-informed restoration of public forest lands. Discretionary funding accounts include:
  - Forest and Rangeland Research/Forest Inventory and Analysis.
  - Land Management Planning, Inventory and Monitoring.
Policy Proposals Expansion

- New Forest Conservation Easement Program »

- Remove the Cap on the Reforestation Trust Fund »

- Landowner Tax Credit for Private Forest Carbon Actions »

- Low Carbon Footprint Building Tax Credit* »

- Strengthening the Forest Inventory and Analysis Program »
New Forest Conservation Easement Program

**Background:**

Forest conservation and avoided forest conversion are leading ways to naturally sequester carbon and add to the stability of the carbon market, while also supporting water quality, working forests, local jobs and rural communities. With increasing development pressure on private forest lands that could result in conversion of forests to non-forest uses, conservation easements are an important voluntary option for forest landowners to keep their forests as forests and be part of a climate mitigation and resilience strategy to maintain forest carbon sinks.

There are two existing forest conservation easement programs at the federal level: the Forest Legacy Program, administered by the U.S. Forest Service and funded through the Land and Water Conservation Fund, and the Healthy Forests Reserve Program, administered by the USDA Natural Resources Conservation Service with a discretionary funding authorization but no dedicated funding. Neither program allows an eligible entity, like a land trust, to hold the easement; and each has further restrictions and serves a narrower niche preventing them from fulfilling the need for a national, private forestland protection program that is on par with the Agricultural Conservation Easement Program (ACEP).

We propose that the Farm Bill Conservation Title (or another legislative vehicle) expand and fund a new Forest Conservation Easement Program (FCEP) with mandatory funding at $100 million annually that is in addition to funds for existing agriculture and forest easement programs.

This program would consist of two components, entity-held easements and U.S.-held easements, as a forest-focused "sister program" to ACEP. We recommend merging the Healthy Forest Reserve Program (HFRP) into this program to implement U.S.-held easements (similar to ACEP's WRE), and a second sub-program be created to implement entity-held easements (similar to ACEP's ALE). We recommend merging this concept with HFRP for several reasons but one in particular is that HFRP already has enhancing carbon sequestration as a priority, which should be maintained as a priority in FCEP.
Proposed Legislative Outline:

1. Create new authority for a Forest Conservation Easement Program with the goal of keeping private forests as forests through the use of conservation easements that buy the development rights from private landowners to prevent conversion to non-forest uses while maintaining working forests, a key strategy for protecting the U.S. forest carbon sink.

2. Create a subprogram within FCEP, the “Forest Reserve Easement” (FRE) sub-program that would rename the current HFRP and fund U.S.-held easements and restoration, using the existing HFRP language that includes carbon sequestration as a priority and promotes well-managed working forests.

3. Create a second subprogram, the “Forest Land Easement” (FLE) sub-program, for entity-held easements (i.e. easements held by land trusts and other similar entities) that will benefit carbon sequestration opportunities and working forests.

4. Allow for an increase in federal cost-share for limited resource, socially disadvantaged and veteran producers, and other historically underserved producers, including as defined in other USDA Farm Bill programs in section 2279(e) of title 7.
Background:

America’s national forests are facing significant challenges from a changing climate. While it is federal policy that national forests must be reforested after severe wildfires and other catastrophic events, the US Forest Service has been unable to meet this goal for decades. Up to 7.7 million acres of our National Forests are in need of reforestation¹, with over 1.3 million in need of immediate attention². The recent increase in severe forest fires has significantly increased the acres of National Forests in need of reforestation³. Reforesting National Forests will yield significant climate mitigation benefits by sequestering carbon in growing trees. In fact, if reforested our National Forests could sequester 6,078,815 tons of CO2 equivalent annually.

Congress established the Reforestation Trust Fund (RTF) in 1980 to reforest the National Forest System after wildfire and other disturbances, but USFS access is capped at $30 million per year by the original authorizing legislation. The RTF is funded by existing tariffs collected on a discrete set of timber and wood products. These tariffs now regularly exceed $100 million annually, with a recent high of $178 million. Removing the RTF cap would allow USFS full access to these collected tariffs, which would significantly increase annual funding available to USFS for reforesting national forests. For every $1 million invested in reforestation, an estimated 39.7 jobs are created. Further, the RTF is currently matched at a 3:2 ratio by other funding sources, which would increase the impact of eliminating the cap.

¹ USFS field staff report 1.378 million acres need reforestation as of 2019. Geospatial analyses suggest even greater need for reforestation than the data reported by USFS field staff. The USFS Rapid Assessment of Vegetation Condition after Wildfire (RAVG) dataset suggests that potential acreage could be as much as three times greater (https://data.fs.usda.gov/geodata/rastergateway/ravg/index.php). A recent estimate by The Nature Conservancy suggests total reforestation need on USFS land could reach 7.7 million acres (Fargione et al, 2018 and updated analysis in press Cook-Patton et. al, 2020).
² Forest Service Activity Tracking System (FACTS) data, 2019.
³ National interagency fire center reports on USFS land, between 2015 to 2019 wildfires burned between 0.6-2.9 million acres per year. https://fas.org/sgp/crs/misc/IF10244.pdf
**Proposed Legislation:**

The REPLANT Act will maintain and expand national forest cover by eliminating the cap on the Reforestation Trust Fund (RTF) which would significantly increase USFS resources to reforest national forests in need as well as address future needs. It would achieve this goal by removing the cap on the RTF and requiring the USFS to address the 1.3 million acre reforestation backlog within 10 years while ensuring best forestry practices.

For REPLANT Act text, see: [S. 4357](#) and [H.R. 7843](#).

**Related Legislation:**

- **Reforestation Act of 2019:** This bill would lift the cap on the RTF to $60 million annually
- **Forestry Renewal Act:** This bill would remove the cap on the RTF
Landowner Tax Credit for Private Forest Carbon Actions

**Background:**

A transferrable tax credit could incentivize carbon sequestration in privately-owned forests, with credits provided for increased carbon sequestration. With transferable tax credits, if the value of the tax credit is higher than the taxpayer’s tax liability, he/she can sell or transfer the excess credits to any other taxpayer. Making the tax credit transferable creates many more opportunities for financial gain for the landowner, as they are not limited by their own tax liability. While the Federal Tax Code section 45Q incentivizes carbon capture and storage in the energy sector through a tax credit, it does not provide a similar incentive for the forest sector.

The proposed landowner tax credit outlined below includes two options for landowner participation, which gives the landowner choice and flexibility:

- Practice based option: the tax credit is determined by approved practices the landowner implements (selected from approved USDA list). We recommend practices be determined on a regional basis.
- Performance based option: tax credit is determined by carbon sequestration performance above a baseline.

The practice-based approach can appeal to smaller landowners and is USDA’s comfort zone. The performance-based approach works better for large forest owners, offers opportunities at scale, invites innovation, and is USDA’s aspiration.

If crafted well, a landowner tax incentive for forest carbon sequestration could increase the return on investment to private forest owners for carbon sequestration and catalyze further efforts by private forest owners in being a solution at scale on climate.

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1 The federal tax code does include many provisions to aid private landowners in conservation and sustainable management such as tax deductions for replanting after harvest and donation of conservation easements on working forests, and capital gains treatment of timber income.
Proposed Legislative Outline:

(note: we have intentionally left the credit values blank below, to enable a conversation with various stakeholders and policy makers about the appropriate values)

Purpose:

The purpose of this Act is to provide tax credits for carbon sequestration and storage in the private forest land sector.

Tax Credit shall be rewarded based on one of the following two options, with the performance-based option delivering a higher tax credit value to the landowner (more work for landowner, higher confidence in tons delivered):

1. Practice based option: the tax credit is determined based on practices the landowner implements (selected from USDA approved list):
   - [X]% of the cost of the forest carbon practice. USDA will develop tiers (likely 3 – high, medium, low) of practices based on estimated tons of carbon sequestered. Practice tiers will be developed regionally.

2. Performance based option: tax credit is determined by carbon sequestration performance (measured tons) above a baseline by the landowner.
   - $[XX] per ton of carbon produced by landowner, as verified by a registry recognized by USDA or alternative verification approach approved by USDA. (Bennett bill starts at $22/ton, 45Q is between $20-50/ton).

Recommended requirements of any tax credit issued under this proposal:

- Ensure the tax credit is transferable to a third party so that it can be monetized. Avoid limitations on transferability.
- Ensure receipt of the credit is treated as a qualifying REIT asset and sale is qualifying REIT income.
- Allow for an increase in tax credit for limited resource, socially disadvantaged and veteran producers, and other historically underserved producers, including as defined in other USDA Farm Bill programs in section 2279(e) of title 7.
• While the IRS will implement the tax credit itself, USDA should house the measurement/practices side of the program. The Secretary of Agriculture would be responsible for further program determinations (i.e. practices approved, carbon values of those practices, etc.), with the tax credit administered by the IRS.

• Ensure the tax credit can be issued to the landowner when a landowner is participating in an aggregation model, in which the landowner sells his/her carbon rights to the aggregator (i.e. where the landowner is not technically selling their carbon, an entity is doing it on their behalf—but entity can give them proof of carbon tons the landowner is generating).

• Allow landowners that are and aren't participating in the voluntary carbon markets to participate in the tax credit provided the tons incentivized under this credit aren't already being retired under a state or federal compliance carbon accounting framework.

• Achieve real mitigation benefits in terms of additionality, verification, and permanence while minimizing unnecessary burdens on landowners that deter participation, consider impacts on the entire forestry value chain, avoid requiring co-benefits, and recognize the benefits of active, sustainable forest management. To optimize benefits for carbon and landowner participation, avoid complexity and burden that adding additional incentives for co-benefits typically creates. This is a tax credit for carbon benefits. Landowners can get those incentives through a multiple of other programs.

• Recognize and utilize existing registries to account for carbon and direct/encourage the Secretary to identify and/or develop other means to account for real, measurable increases in carbon sequestration with credible criteria for additionality, verification, and permanence that reduce unnecessary burdens on landowners and address hurdles to landowner participation in existing protocols. Areas for innovation include evaluating ways to use sequential sampling, remote sensing, and aggregation to better leverage existing forest inventory methods and reduce field sampling requirements for verification and evaluating more flexible options on permanence and project area changes.

• Address lifecycle of carbon questions to avoid conflicts with other carbon sequestration tax credits (i.e. a tax credit for building with low carbon materials) and with carbon credits sold in cap and trade programs. Ensure the policy addresses issues of double counting/double paying for same carbon tons.

• To qualify for the tax credit, if lands are reforested, they must be on appropriate sites with appropriate species for the region, and appropriate methodologies. USDA will provide further specifications for these qualifications.

• To ensure basic co-benefits—clean water, habitat, and sustainable
management parameters etc. – are addressed, landowners must have a credible management plan.

• To help offset the cost, consider including a transfer fee to the Treasury if a landowner opts to sell or transfer unused credits. In Virginia, there is a transfer fee equal to 5% of the credit amount transferred. Transfers and credit allocations between pass-through entities, (s-corporations, LLCs, etc.) are usually also subject to the fee.

• Recognizing that for many family forest owners, especially for limited resource, socially disadvantaged and veteran producers (including forest owners), accessing a tax credit such as this will require significant education and technical assistance, this tax credit should be paired with investments in assistance to such landowners.

Relevant Legislation:

• DRAFT Tax Credit Bill from Senator Bennet (D-CO) which includes two parts:
  » Quantification Credit: Establishes a 30 percent tax credit for the cost of quantifying baseline and annual carbon sequestration levels for agriculture, rangeland, forest, and wetlands.
  » Outcomes Credit: Creates a dollar per ton tax credit based on the amount of carbon sequestered. The amount of the credit is tied to the funding levels for carbon capture and storage in the 45Q tax credit for carbon sequestration and utilization from industrial sources.

• 45Q tax credit provides a tax credit on a per-ton basis for CO2 that is sequestered. Updated by the Bipartisan Budget Act of 2018, the 45Q tax credit provides an incentive of $50 per metric ton for CO2 geologic storage and $35 per metric ton for CO2 used for enhanced oil recovery (EOR) or enhanced natural gas recovery (EGR) by 2026. The party eligible to claim the tax credit is the owner of the capture equipment. That party must physically or contractually ensure the storage or utilization of the CO2 or CO and may elect to transfer the credit to another party that stores or puts the CO2 or CO to beneficial use.

• VA Land Preservation Tax Credit: Virginia allows an income tax credit for 40 percent of the value of donated land or conservation easements. Taxpayers may use up to $20,000 per year through 2020 and $50,000 per year in subsequent tax years. Tax credits may be carried forward for up to 13 years. Unused credits may be sold, allowing individuals with little or no Virginia income tax burden to take advantage of this benefit. The transferability feature of Virginia's tax credit program is especially valuable to landowners with little or no state income tax liability, enabling them to sell their tax credits for income. Responsibilities for oversight of the LPTC program are shared by the Virginia Department of Taxation (TAX) and the Virginia Department of Conservation and Recreation (DCR).
**Basic Policy Idea:**

New construction tax credit for building with materials with lower carbon footprint with safeguards to ensure positive outcomes for forests and the climate:

- The transferrable tax credit would go to the developer of the project, or the entity making most decisions/investments in materials for the project (multi-family house or other building). The amount of the tax credit would be based on the value of the building, not the land, and would be determined by the building’s carbon footprint score.
- The tax credit would be determined by a life cycle analysis that is well documented, scientifically sound, widely used, material agnostic, compares between materials, and considers all life cycle stages.
- There could be additional incentives provided for activities that provide social benefits and increase use of low carbon footprint materials in construction: 1) infrastructure projects, 2) affordable housing, and 3) public works construction like schools.
- Any tax credit for lower carbon footprint materials should include safeguards to promote positive outcomes for forests and climate.

Providing a tax incentive to build with low carbon footprint materials will create incentives to reduce the carbon footprint of the built environment while also helping keep forests as forests, which provides clean water, wildlife habitat, and carbon sequestration at scale.

**Who will benefit the most from this policy idea?**

If structured appropriately, a low carbon building tax incentive could create the following benefits:

- Society will benefit from increased carbon sequestration in the forests and increased carbon storage in building materials used to reduce the carbon footprint of the built environment.
- Forest landowners will benefit from more demand for sustainably harvested trees contributing to a stabilized climate.
- Rural economies will benefit from increased job opportunities.

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*This document includes draft principles only and should not to be used or implied as support for any specific legislation or legislative proposals.*
Low Carbon Footprint Building Tax Credit* (cont.)

Draft Legislative Concept – High Level Draft:

Purpose:

The purpose of this Act is to provide tax credits for reducing embodied and embedded carbon in commercial and residential buildings by using low carbon footprint building materials while providing safeguards to ensure positive outcomes for forests and the climate.

- Tax credit shall go to the developer of the project, or the entity making most decisions/investments in materials for the project (multi-family house or other building).
- The amount of the tax credit is determined by the building’s carbon footprint score and is based on the value of the building, not the land.
- The tax credit is determined by whole building life cycle assessment methodology or calculator. To be considered, a calculator or methodology must be well documented, scientifically sound, widely used, material agnostic, compare between materials, and consider all life cycle stages (including resource extraction and processing; product manufacturing; on-site construction of assemblies; all related transportation; maintenance and replacement cycles over an assumed building service life; and the demolition and transportation of non-metal materials to landfill).
- Ensure the tax credit is transferable to a third party so that it can be monetized. The tax credit should provide additional incentives for activities that provide social benefits and increase use of low carbon footprint materials in construction: 1) infrastructure projects, 2) affordable housing, and 3) public works construction like schools.
- Ensure the tax credit should include safeguards to promote positive outcomes for forests and climate.
- The Secretary of Agriculture, in consultation with the Secretary of Energy and the Environmental Protection Agency, shall review the preferred whole building LCA methodology/calculator and assess needed updates or value of switching to another calculator not less frequently than once every 5 calendar years.

*This document includes draft principles only and should not to be used or implied as support for any specific legislation or legislative proposals.
Strengthening the Forest Inventory and Analysis Program

**Background:**

The current Forest Inventory and Analysis Program (FIA) is the only source of forest data and analysis that is national in scope and consistent in measurements. The FIA program provides crucial information to federal and state forestry agencies, industry, academic, and conservation organizations on a wide range of forestry-related topics. From informing economic decisions that drive billions of dollars in economic value in the forest sector, to shaping wildfire protection strategies, to assessing urban tree canopies that essential for air quality and heat reduction, to identifying essential wildlife habitat, to analyzing actions of family forest owners, FIA provides the backbone data for all these important actions and more. Increasingly, FIA is relied on to provide data on the state of the Nation’s largest carbon sink—our forests—making it an essential component of decisions regarding climate change mitigation and adaptation strategy. However, the demands for information on forest carbon are becoming more varied and at scales that are problematic to meet with the current design and capabilities of the program.

In particular, we recommend that the program expand data by accelerating data collection on the base grid to a 5-year remeasurement cycle nationwide, fully funded with federal appropriations. Strengthening remeasurement capabilities to a consistent nationwide cycle and standard will lower uncertainty levels in carbon estimation and better detect true differences in consequences of policy options.

But more data collected more frequently is not enough. Additional statistical research capacity is required to develop and employ the complex cutting-edge statistical imputation and estimation procedures required to produce the level of accuracy that clients are demanding today for smaller geographic areas. The additional analytical capacity will focus research efforts to improve best applications and integration of remote sensing technologies within the FIA program and develop technologies to reduce costs and make it easier to measure and monitor forest carbon (especially for forest inventories and verification). Using imagery from advanced technologies, especially remote sensing platforms would improve products for decision making by policy makers and managers and enable forest owner participation in carbon crediting opportunities.

The following legislative proposal is intended to provide direction to the agency as noted above. This, combined with increases in appropriations and additional administrative program direction, will help ensure FIA continues to meet the needs of the forest sector.
Strengthening the Forest Inventory and Analysis Program (cont.)

**Proposed Legislative Outline:**

We propose making the following changes to the existing FIA authorization. Changes are underlined and in italics.

16 U.S. Code § 1642. Investigations, experiments, tests, and other activities

(e) Forest inventory and analysis

(3) 5-year reports

Not more often than every 5 full fiscal years after June 23, 1998, the Secretary shall prepare, publish, and make available to the public a report, prepared in cooperation with State foresters, that—

(A) contains a description of each State inventory of forests and their resources, incorporating all sample plot measurements conducted during the 5 years covered by the report;

(B) displays and analyzes on a nationwide basis the results of the annual reports required by paragraph (2); and

(C) contains an analysis of forest health conditions and trends, including forest carbon, over the previous 2 decades, with an emphasis on such conditions and trends during the period subsequent to the immediately preceding report under this paragraph; and

(D) demonstrates the Agency’s efforts to measure a consistent historical series of field plots while using advanced technology to improve data and information and use advance geospatial technologies to improve area and volume estimates, especially for sub-State regions and smaller area estimates.

**Relevant Legislation:**

2018 Farm Bill Report Language: SEC. 8632. REMOTE SENSING TECHNOLOGIES.

The Chief of the Forest Service shall—(1) continue to find efficiencies in the operations of the forest inventory and analysis program under section 3(e) of the Forest and Rangeland Renewable Resources Research Act of 1978 (16 U.S.C. 1642(e)) through the improved use and integration of advanced remote sensing technologies to provide estimates for state- and national-level inventories, where appropriate; and (2) partner with States and other interested stakeholders to carry out the program described in paragraph (1).