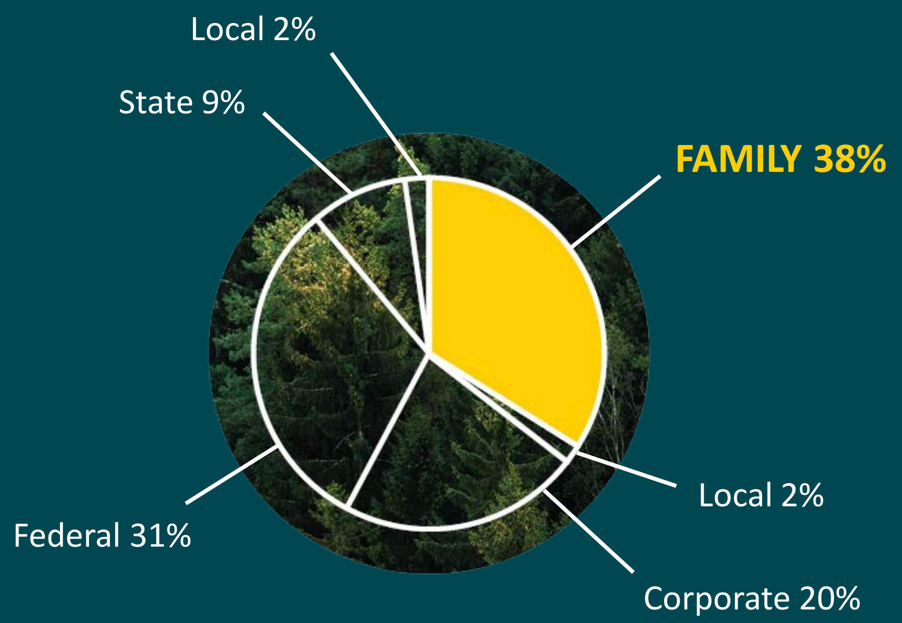
The Family Forest Carbon Program:

Leveraging Climate Finance to Maintain and Enhance Forest Health in the Chesapeake Bay Region

December 9, 2020

American Forest Foundation

Family-owned forests are critical in the fight against climate change



- Opportunity: Families and individuals own the largest portion of U.S. forests
- Challenge: The average acreage of a family woodland is 67 acres, **too small to participate in traditional carbon projects**.

The Family Forest Carbon Program's Audacious Goal

The American Forest Foundation and **The Nature Conservancy** have partnered to design and launch a new program, which addresses the obstacles family landowners face in participating in carbon markets.

The goal? Reach 20% of family-owned forest acres nationally by 2030, in order to sequester and store **at least 2 billion tons of additional CO_2** by the end of the century, while improving wildlife habitat, overall forest health, water quality and recreational spaces.

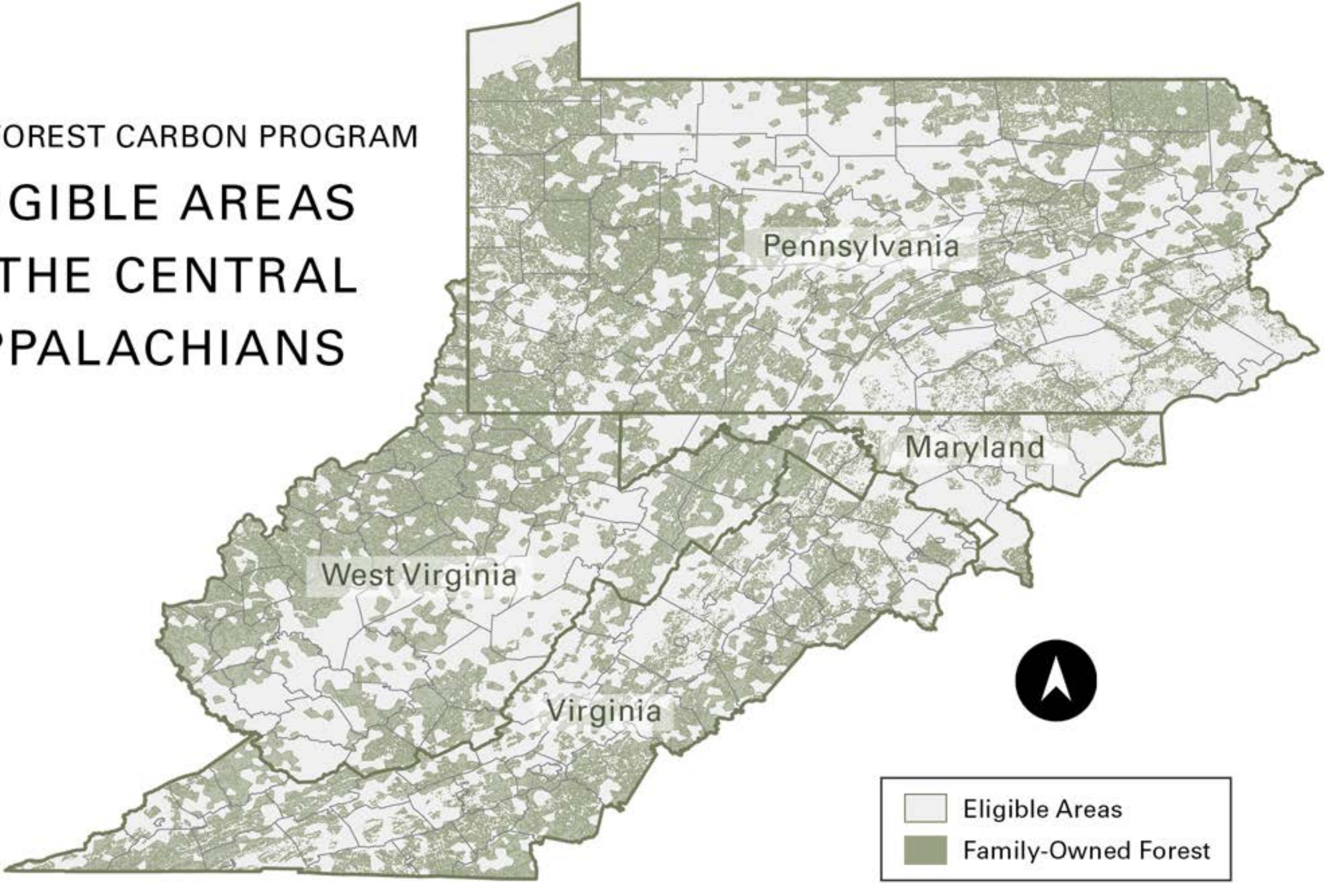
SDP Goals also provided by FFCP

Program Status

- 16 PA County Pilot:
  - 540 landowners representing 68,000 acres have expressed interest.
  - 35 landowners and 5,000 acres are already under contract.

FAMILY FOREST CARBON PROGRAM

ELIGIBLE AREAS IN THE CENTRAL APPALACHIANS



State and county boundaries sourced from the U.S. Census Bureau in 2020. Family-owned forest data sourced from the USDA Forest Service in 2019. Eligible areas generated by the Family Forest Carbon Program in 2019.

FAMILY FOREST IMPACT FOUNDATION

The Nature Conservancy

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Last updated: May 26, 2020, by Lynn Riley, lriley@forestfoundation.org

Jon and Sylvia Dysard

- Enrolled 376 acres in Huntington County, PA
- FFCP program funding supports the upkeep and maintenance of his property in his retirement
- “You’d be foolish not to get into the program, when it’s made to help the landowner keep his land. I am very pleased.”

Sisters: Louise, Margaret and Regina Hartman

- Enrolled 116 acres in Northumberland County, PA
- Land has been in the family’s history for generations
- Priority to keep the land in the family and this program helps them do just that.
- We are improving our property, not just for the forest, but the wildlife and our family. We teach our nephews to never sell the farm, the farm will always support you.”

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Through this project, over the next several decades we will:

- Support **7,500 rural families**
- Implement sustainable forestry practices, which benefit water quality and wildlife habitat, on **585,000 acres**
- Provide **$165 million** in incentives and technical assistance to rural landowners
  - 59% of expenses go directly to support landowners
- Generate more than **19 million** tons of third-party verified C02e reductions
- Leverage **$76 million** in private finance, and an additional **$300 million** in sales of voluntary carbon credits

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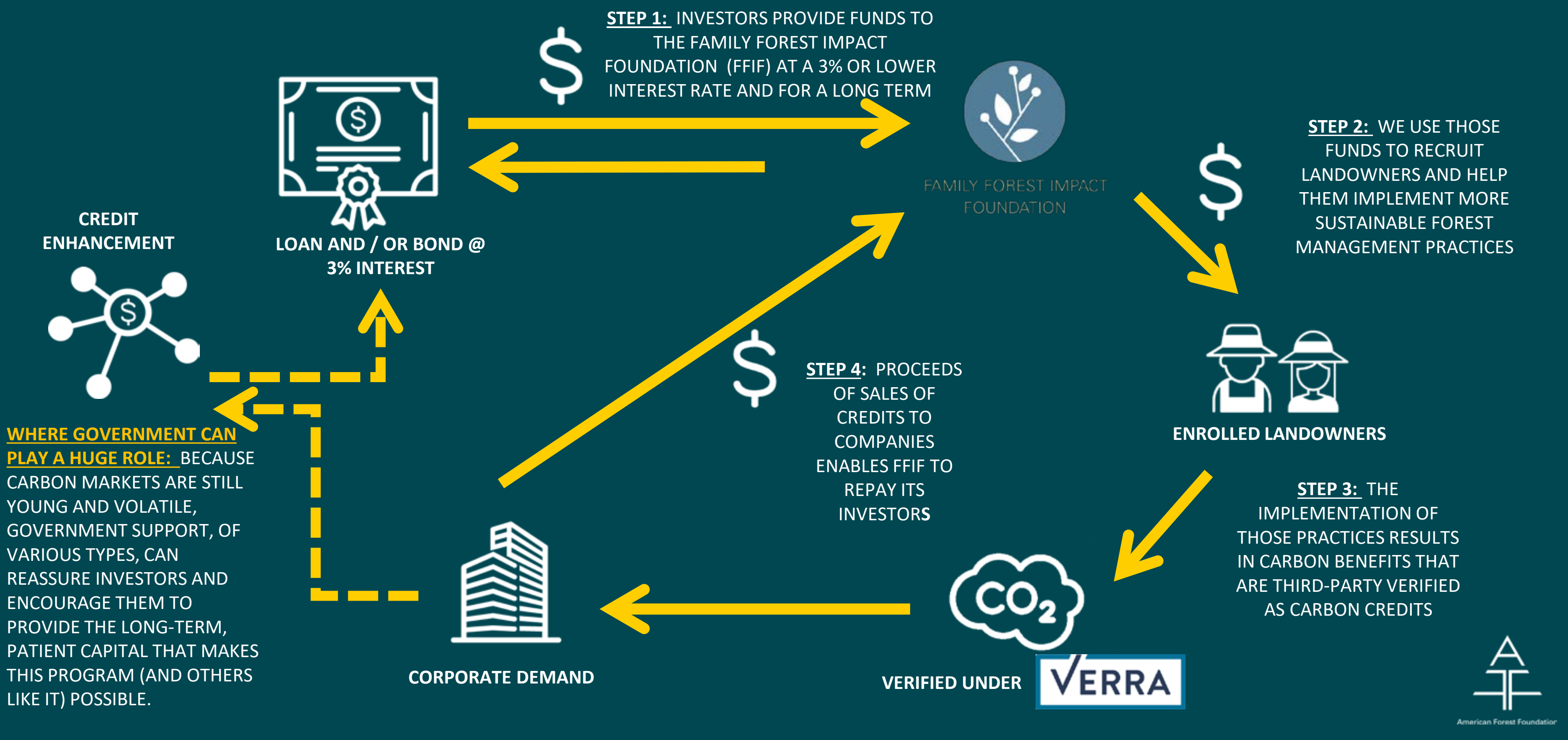
The Financial Model



How state governments can help

1. Offering loan or bond guarantees (e.g. State Revolving Funds
   - Ensure existing state legislation supports these projects

2. Acting as a buyer of last resort at a fixed price floor

3. Investing directly in project development

4. Co-investing in the production of credits through landowner subsidies

5. On-the-ground collaboration (e.g. marketing, technical assistance, etc.)

Loan or Bond Guarantees

What?

- States can authorize and encourage, through legislation and executive action, their State Revolving Funds to offer loan or bond guarantees for programs like FFCP.

Why?

- Enables project to acquire private, low-cost capital consistent with its financial model
- Extremely capital efficient: If program performs as expected, guarantee is never called and state accomplishes its goals without the expenditure of funds. Also, the same guarantee can be re-used to underwrite additional tranches of financing.

Questions?

- We are happy to provide more information about the FFCP, its current status, or the climate finance ideas that would help it (and other private carbon programs) scale. We look forward to working with the members of the Commission on utilizing the FFCP to achieve their goals.

- To get more details of how the program is presented to landowners, please visit:
  - https://www.familyforestcarbon.org/
  - Christine: ccadigan@forestfoundation.org
  - Nate: ntruitt@forestfoundation.org

- To see the story of Susan Benedict, a landowner who is participating in the FFCP, please visit:
  - https://vimeo.com/409898117

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Appendix: Detailed state policy options, methodology description and practice specifics

The Nature Conservancy
Protecting nature. Preserving life.

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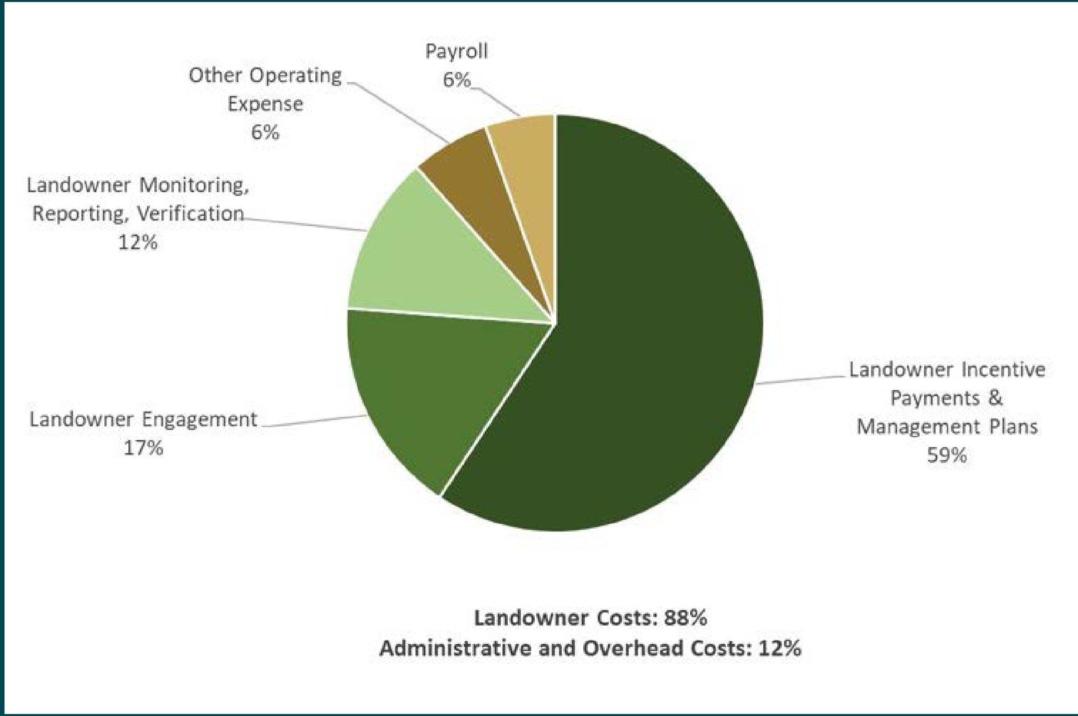
Where the money goes

- **59% of expenses** go directly to landowners
- Left-over profit is put back to work in conservation.



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Buyer of Last Resort

What?

- State signs a contract , giving FFCP the right to sell credits to the government at an agreed-upon strike price in the event a private buyer cannot be found

Why?

- Provides assurance to investors that the program will generate revenue needed to repay investment; results in lower interest rates for program
- A win-win for the state – either third parties buy the credits, and the state gets the non-carbon benefits of the program "for free;" OR, **in the "worst case scenario,"** the state acquires carbon credits and other verified benefits it would typically pay for through subsidy programs – only in this case, the state only pays when the outcomes are produced and verified.

Direct Investment

What?

- State governments can be an investor in FFCP by putting up their own capital to help fund the program's upfront costs.
- This would be "concessionary" capital in the form of:
    - Outright grants – especially important at early stages, or to develop new program aspects
    - Loans which could be forgiven if program underperforms

Why?

- Provides protection to private investors, as their investments are protected from losses by a slice of government capital. Thus, crowds in private investment.
- Allows the government to capture private investment to help achieve public goals.

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Co-investment in credit generation

What?

- Similar to renewable energy incentives, states could provide subsidies for landowners that produce tons of carbon to be sold on the market.
- Could likely be accomplished through existing landowner assistance programs.

Why?

- Creates a globally competitive industry in the region for carbon credit generation.
- Leverages private finance to subsidize desirable forest management practices.

On-the-ground support

What?

- Relevant agencies can assist the program in connecting with landowners, and providing landowners technical assistance needed to participate
- Agencies can also help with other program needs (for example, the science to develop new practices).

Why?

- Reduces the costs the program must cover for landowner engagement and program development, thus improving the financial model for investors
- Allows agencies to align the program's deployment with their own regional priorities

A note about ownership

Who owns the carbon benefits?

- A likely outcome of international climate negotiations will be that private companies purchasing the carbon credits produced by the program would be able to “claim” the carbon, whereas state governments would not be able to.

However . . .

- There are many benefits to these projects. Climate is only the most salable. By supporting the program in the ways described above, states can leverage private climate finance to achieve a host of benefits, including support for rural economies, clean water, wildlife habitat, and long-term vitality of wood products markets.

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Key FFCP Innovations that Enable Family Landowners to Participate in Carbon Markets

‘TRADITIONAL’ CARBON MARKETS	FAMILY FOREST CARBON PROGRAM
Pays landowners for carbon sequestered	Pays landowners to implement specific practices
Monitors carbon values on every property	Monitors practice implementation on every property; monitors carbon values on a landscape level using random sampling
High costs for monitoring on a per-property basis	Monitoring costs are high but spread across participating properties
Permanence addressed through 100 year contracts	20 year contracts; permanence addressed on program / landscape scale through innovative “Permanence Fund”

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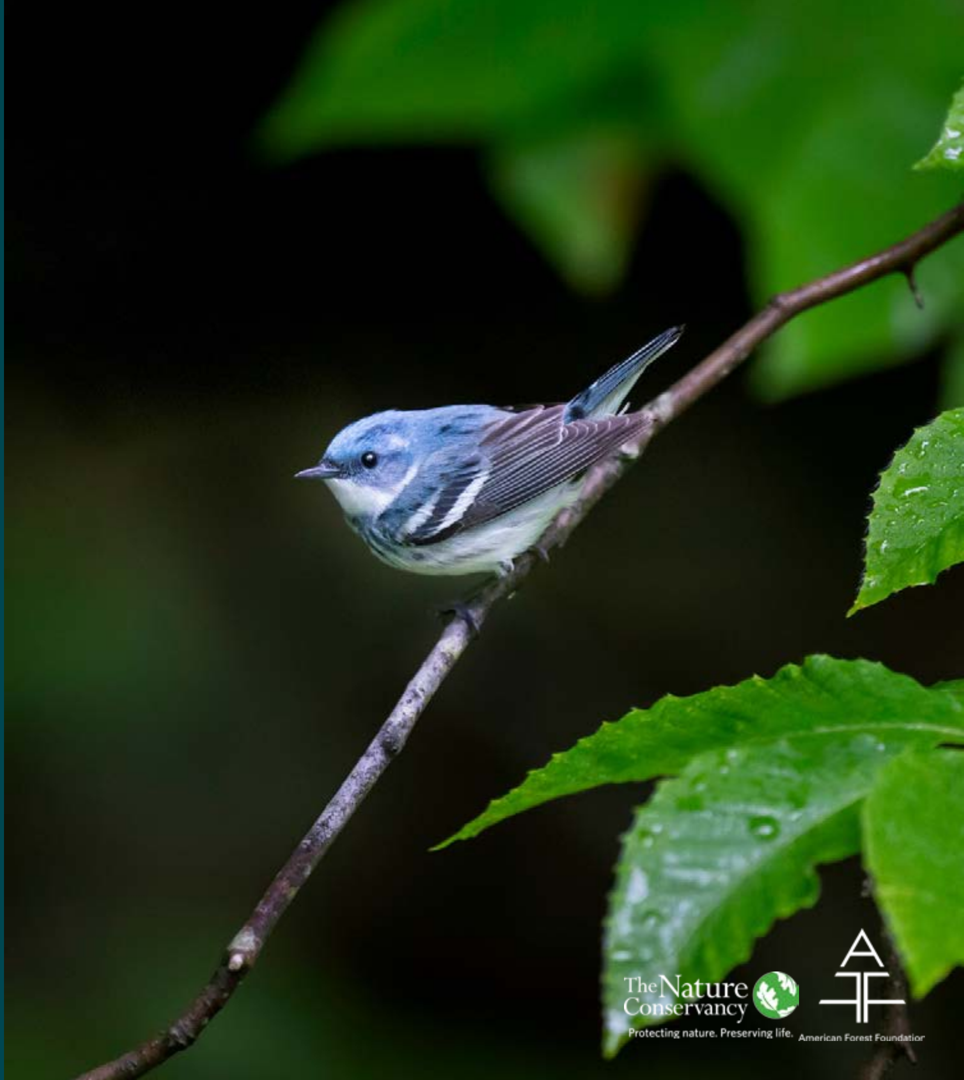
Growing Mature Forests Practice

- 20-year contract
- Practice specifications:
  - Develop two property-wide, 10-year forest management plans
  - Harvests are allowed but restricted:
    - No thinning from above (“high-grading”)
    - No more than 35% of basal area may be removed
- Payment covers part of the opportunity cost
  - $110-$400/acre



Enhancing Future Forests Practice

- Former or future regeneration harvest site, where there is significant invasive or other undesirable competing vegetation
- 10-year contract with 30 years of carbon benefit
- Payment helps cover treatment of competing vegetation to encourage successful regeneration
  - $50/acre - $245/acre