

**Testimony of Mary Mitsos, President and CEO, National  
Forest Foundation, before the Senate Environment and  
Natural Resources Committee**

**May 20, 2021**

Chairman Manchin and Ranking Member Barrasso, thank you for this opportunity.

The National Forest Foundation is a congressionally-chartered, non-advocacy nonprofit organization that works on behalf of the American public to ensure the health and resilience of our National Forests and to inspire personal and meaningful connections to them.

Working very closely with the U.S. Forest Service, we leverage private and public funding -- \$253 million since 2001 -- to lead forest conservation efforts and promote responsible recreation. Each year, the National Forest Foundation facilitates common ground, restores fish and wildlife habitat, reduces wildfire risk, plants trees, and improves recreational opportunities.

Forests are an essential resource in our nation: they provide jobs, fiber, clean air and water, hunting, fishing, and more. They also sequester hundreds of millions of tons of carbon dioxide every year, up to 15% of this country's annual emissions.

National Forests are a natural climate solution; however, severe wildfire across much of the western U.S. threaten to shift millions of acres of National Forests from a carbon sink into a carbon source. Forest restoration can reverse this trend. Healthy, fire-resilient forests will help maintain and increase long-term carbon storage capacity. While every forest requires tailored treatments, tools like forest thinning and prescribed fire can reduce fire risk and help retain forest cover. In places already affected by fire, tree planting helps ensure forests persist.

The science of forest restoration is well established and widely practiced. What impedes this work is the cost of restoration at the scale needed. The Forest Service estimates around 80 million acres in the System require restoration. Forest restoration requires substantial and sustained funding. Drawing from the National Forest Foundation's project experience, restoration costs typically range from \$500 to \$2,000 per acre, with an average around \$1,000 per acre. At that average cost, that current need exceeds \$80 billion today.

While this is a significant amount of money, the cost of paying for the disaster relief and destruction caused by wildfire will be many times greater.

Addressing this will require every tool available, including greater utilization of low-value wood products from restoration treatments, continued funding, and policies that unlock private investment for carbon offsets generated on Forest Service lands.

The National Forest Foundation works daily with the private sector on investments in our public lands. The interest is huge and growing. We create innovative solutions to match private funding with forests' needs. For example, we're combining a multitude of partners -- local governments, utilities, major corporations, philanthropy, and more -- to support forest restoration in places like Arizona, California, and Colorado. We are prepared to expand these efforts.

With the estimated 80 million acres in need of restoration, the challenge of reducing losses from high-severity fire is huge. For more than a century fire suppression practices increased fuel loads, which now allow fires to burn hotter and move fire to the forest canopy, resulting in large scale and often high-severity wildfires. These stand-replacing fires release significant quantities of carbon dioxide and other greenhouse gasses.

As a consequence, some forests are becoming a source of carbon to the atmosphere. The loss of large tracts of forest to high-severity fire also impairs future storage and sequestration of carbon due to shifts in ecosystem composition from carbon dense forests to lower density grasslands and shrublands.

Forest restoration that reduces fuel loads in forests, through thinning and prescribed fire, can reduce wildfire intensity and extent. Consequently restored forests are expected to store more carbon, more securely over time due to the avoided loss and continued growth of fire-resilient forests.

In our extensive work with the private sector, one of the most common questions we get from our corporate partners is, "Can we get carbon offsets for this project?"

Generating carbon offsets from forest restoration presents a significant opportunity to increase private funding for this work. The National Forest Foundation is working with Verra, the largest voluntary carbon registry in the U.S., to develop a new methodology that would credit forest restoration projects that increase carbon storage and sequestration.

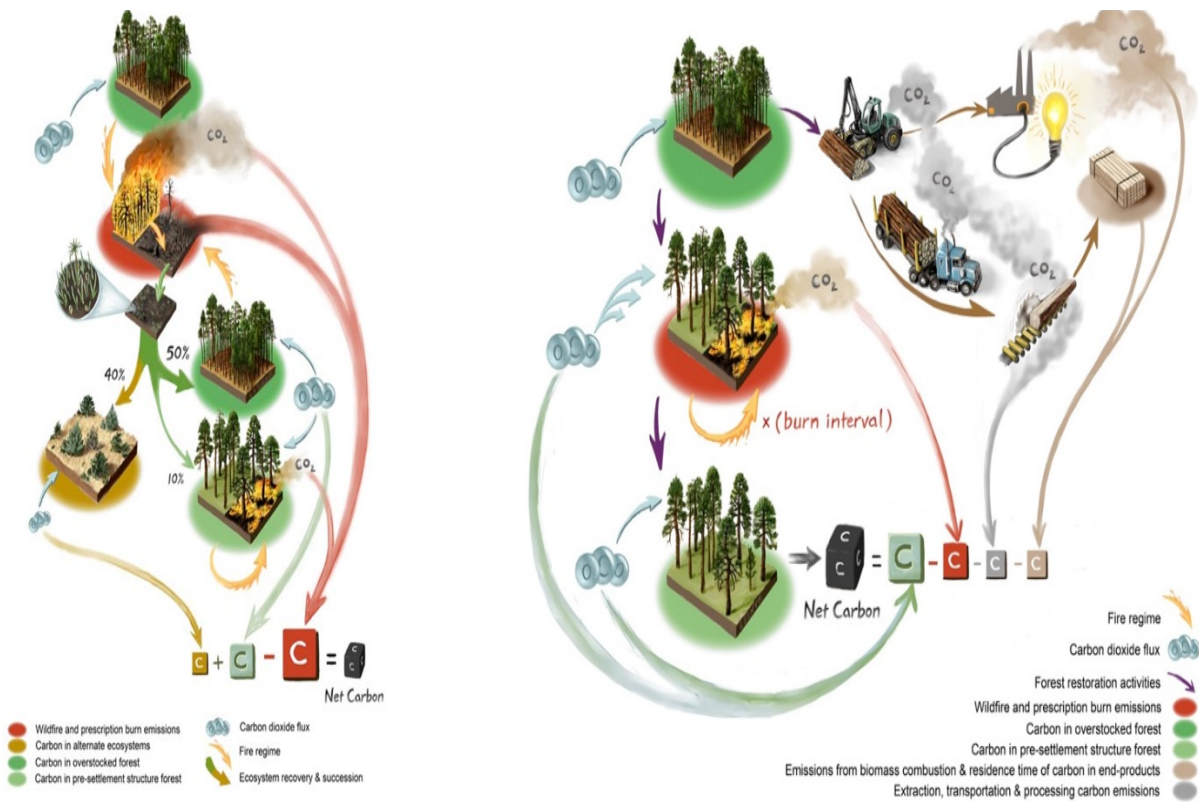
The forest restoration carbon methodology is premised on the idea that restoration helps retain forest cover by reducing the risk of high-severity fire. Carbon benefits are realized as the long-term, stable storage of carbon in terrestrial pools (e.g., live trees, soil) in restored forests accrues, in contrast to a counter-factual scenario in which unrestored forests would experience high-severity fire causing the release of carbon and long-term loss of forest cover.

The figures below provide a conceptual model of the carbon outcomes of No Treatment and Treatment

scenarios. The National Forest FoundationN developed methods that account for annual forest losses due to high-severity fire using remote-sensing and modelling to calculate the difference in long-term carbon storage between scenarios. These estimates can be made using existing Forest Service data and can be run for multiple forest types in any location. If approved, this methodology will provide transparent carbon offsets that can drive climate-investment dollars into forest restoration project on National Forest System lands.

**No Treatment Scenario**

**Treatment Scenario**



Voluntary forest carbon offsets may sell for between \$8 and \$20 per MtCO<sub>2</sub>e. Initial estimates of a fire-prone, ponderosa pine forest in Arizona indicated that more than 50 MtCO<sub>2</sub>e could be generated from

restoration projects. While this is likely at the high range (best case scenario) it illustrates that carbon offsets could play an important role in paying for a significant portion of restoration. The total carbon benefit may be even greater when considering the potential wood product uses coming off of restoration projects. Carbon offsets are expected to complete and possibly enable greater wood product utilization by helping pay for the cost of thinning and removal of wood from forests to locations where it can be used.

While this suggests a promising opportunity to use offsets to reduce the costs and accelerate pace and scale of restoration a few important barriers should be noted.

Generating voluntary carbon offsets on public lands has been tried but with limited success. In 2008, the National Forest Foundation's Carbon Capital Fund established two voluntary offset tree planting projects on the San Juan and Angeles National Forests, in Colorado and California respectively. The first offsets from these projects are yet to be registered through the American Carbon. More than ten years after piloting these projects, they stand out as being the first, and only, voluntary carbon offset projects on National Forests.

Through Carbon Capital Fund projects, the National Forest Foundation and the Forest Service identified several significant challenges that have made offset projects difficult to replicate. Primary issues that will require further consideration include:

- **Long-term agreements.** While private landowners are able to enter into long-term agreements for such projects, public land agencies with multiple-use mandates and more dynamic planning cycles make entering into long-term agreements more difficult.

- **Transfer of offset title.** Offset titles were defined as the rights, interests, and value associated with the offset. In the view of the Forest Service this amounted to selling a property right for carbon stored on public lands. The issue of carbon offset title remains unresolved. The Carbon Capital Fund initially addressed these concern by retiring offsets on behalf of the project funder so that the offset could not be sold or transferred, but could still be claimed by the project funders as a reduction of their carbon footprint. Even with these solutions in place, there was significant concern the projects were not addressing the larger issues of incompatible property rights.
- **Lead carbon partner.** Developing and managing carbon offset projects on National Forests came with additional and complex tasks. National Forest Foundation estimates that the two Carbon Capital offset projects cost 30 to 40 percent more than traditional tree planting and came with decades-long commitments for continued monitoring and reporting responsibilities. Developing carbon projects on National Forests will likely require a non-profit partner like the National Forest Foundation, which has the ability to enter into long term agreements with the Forest Service, manage carbon funds for on-going management of carbon projects, and strong working relationships at all levels of the agency.

Overcoming the challenges listed above may require new authorities for the Forest Service and partners like the National Forest Foundation. We have benefited greatly from dialogue with the Verra regarding the registries requirements and opportunities to develop projects on public lands. Small but meaningful changes may unlock significant opportunity for restoration as revenue from the sale of carbon

offsets has the potential to close the funding gap for socially and ecologically critical restoration projects on National Forests. Facilitating the creation of offsets through existing carbon registries will help ensure that the carbon benefits of restoration are appropriately quantified and valued in the voluntary carbon market.

Offering credible, scientifically rigorous carbon offsets will require additional work. But, our congressional charter, history, and success all affirm that projects on National Forest System lands offer an unparalleled opportunity for natural climate solutions, healthier communities, and resilient forests. This work creates common ground with shared benefits for local contractors, rural and regional economies, corporate partners pursuing climate goals, and the long-term health of our America's National Forests.

Thank you for this opportunity to share the National Forest Foundation's thoughts today.