

Addressing Proforestation on Public Lands

November 2022

The Society of American Foresters (SAF) promotes science-based, sustainable management of the nation's forests. We are speaking up to address the concerns of using active forest management on public lands and to clarify the positive role forestry professionals play in generating healthy, resilient, and sustainable forest systems.



What is Proforestation? Proforestation is a recent preservationist movement that seeks to ban timber harvesting, logging, and active forest management—including prescribed fire and other wildfire mitigation activities—on public lands, particularly in “mature forests.” This movement cites a small body of research suggesting forests should be left to grow unmanaged by humans to maximize carbon sequestration.

What are the implications of this movement? Proforestation advocates are pushing lawmakers to set aside public lands as unmanaged, permanent reserves. If our goal is reducing atmospheric carbon, then looking only at forest growth paints an incomplete picture. The Intergovernmental Panel on Climate Change (IPCC) recognizes active forest management will yield the highest carbon benefits over the long term because of its ability to mitigate carbon-emitting disturbance events and store carbon in harvested wood products. Beyond carbon, forest management ensures forests continue to provide assets like clean water, wildlife habitat, recreation, and economic activity.

Main Messages

- 1) Forest management provides an invaluable suite of benefits to society, including diversified wildlife habitat, essential wood products, regulation of water quantity and quality, and the ability to adapt forests to a changing climate. With its focus on carbon stored in forests, proforestation overlooks these services and fails to account for the full climate benefits of the forest sector or the growing challenge of natural disturbance emissions.
- 2) Forest management offers strategies to manage for carbon sequestration, including forest regeneration and afforestation, carbon stored in durable wood products, and improved resilience to carbon-emitting disturbances like wildfires and insect epidemics. Preservation can be appropriate for unique protected areas, but it has not been demonstrated as a solution for carbon storage or climate change across all forested landscapes.

Key Ideas About Forests and Forest Management

The Basics of Forest Management.

- a) The process by which trees in a forest grow and how the mix of tree species changes over time is called natural succession. Forest management is the practice of resetting and modifying a forest's natural succession to meet desired outcomes. Through science-based techniques—like strategic tree removal and prescribed burning—forestry professionals can foster and maintain the natural function of forest ecosystems while providing renewable resources to meet the needs of our national and global population.
- b) By understanding how natural succession has adapted over millennia to natural disturbances like wildfires, hurricanes, and drought, forestry professionals can make forests more resilient to these events. In a changing climate, resilience is critical to promoting forest health and to reducing carbon emissions from tree mortality.

How does forest management support forest health and resilience?

- a) The natural succession of a forest involves various stages, from young forests sprouting after disturbances to ancient old-growth forests. Wildlife species require different forest stages for food, shelter, reproduction, and habitat because different plant and tree species exist across these stages. In other words, an old forest is not ideal for all wildlife species. Through active management, forestry professionals can create a balanced proportion of these stages across a landscape to foster diverse, resilient, and adaptive ecosystems.
- b) The greatest threat to public forests and their carbon stocks are disturbances such as wildfire, insects, and disease. Mortality from these stressors also leads to more fuel for wildfires. By removing some trees from a

forest, more resources (sunlight and moisture) are provided to the standing trees. In doing so, foresters can manage forests to be more resilient to stressors, thereby reducing mortality and disturbance emissions.

What do we know about managing forests for carbon sequestration?

- a) The IPCC has found that sustainably managing forests can lower greenhouse gas (GHG) emissions, enhance forest carbon sequestration, and maintain forest carbon stocks. This is due to the ability of foresters to mitigate disturbance frequency and severity, optimize forest recovery, and store carbon in wood products.
- b) In addition to being renewable, there is strong evidence that wood products are associated with lower GHG emissions over their entire life cycle when compared to like products made from non-renewable or emissions-intensive materials. When we examine climate change in the context of the global economy, sustainably managing forests for wood products is an asset to mitigating emissions and storing carbon.

What is the current state of our forestlands?

- a) Together, forests and woodlands comprise over one third of US land area; that total wooded area (823 million acres) has remained stable since around 1900. At that time, we had a net positive increase in forests when large areas of agricultural land were abandoned and trees reestablished on these sites.
- b) The three primary indicators of change on our nation's forests are live tree growth, live tree removal, and tree mortality (e.g., disturbances like wildfire, insects, and disease). These factors are key in understanding the sustainability of US forest resources. According to the USDA Forest Service's Forest Inventory and Analysis data, we grow nearly twice the volume of trees we harvest from forests each year. Though removal rates are low, the volume of annual tree mortality—from fire, insects, disease, and other causes—more than doubled from 1952 to 2016 across all US forests. Due to this mortality, forests in many western states now emit more carbon than they sequester on an annual basis.
- c) A similar story is being told on public lands. Timber harvesting on national forests has decreased 80% from peak rates in the middle of the 20th century and has remained level over the last two decades. Meanwhile, mortality from disturbances has tripled on national forests since 1952. From 2006 to 2016 alone, average annual mortality nearly doubled due to combinations of wildfire, drought, insect infestations, and aging forests.

How can forest management help address the wildfire crisis?

- a) During the 20th century, US land management agencies actively suppressed fires by containing and mitigating their spread. This tactic disrupted ecosystems across the country that adapted over millennia to benefit from fire. Historically, fires occurred frequently due to natural events and by application from Indigenous communities, which regularly restored ecosystems and kept fuel loads (e.g., trees, leaf litter) manageable. A century of fire suppression and a lack of prescribed burning has contributed to dense forests with unusually large fuel loads. Climate change continues to exacerbate these conditions, creating catastrophic wildfire seasons that endanger human lives, property, wildlife, and the forests themselves.
- b) By thinning the forest through tree removal, foresters can reduce the quantity of ground and ladder fuels (vegetation that connects the forest floor to treetops). By following a thinning with prescribed, low-severity burns, forestry professionals can mimic historic disturbance cycles to restore ecosystems, maintain fuel loads, harvest wood products, and, most importantly, reduce risk to vulnerable communities.

What does proforestation assume about the relationship between humans and forests?

- a) Proforestation propagates the idea that humans are separate from the ecology and succession of forests, a false dichotomy between humans and nature that can lead to policies damaging to the very resources we need to sustain. Prior to European colonization, North American forests were managed for millennia by Indigenous communities, shaping our landscape most notably through the prolific use of prescribed fire.
- b) Proforestation is mistakenly based on the assumption that forests are static systems that can be protected and preserved through inaction. This has painted forestry professionals as solely extractive and profit driven. On the contrary, forests are dynamic living systems in a constant state of change, as illustrated by impacts from natural disturbances and climate change. Modern forest science and research has demonstrated stewardship can sustain human needs, promote forest health, and adapt ecosystems to climate change.