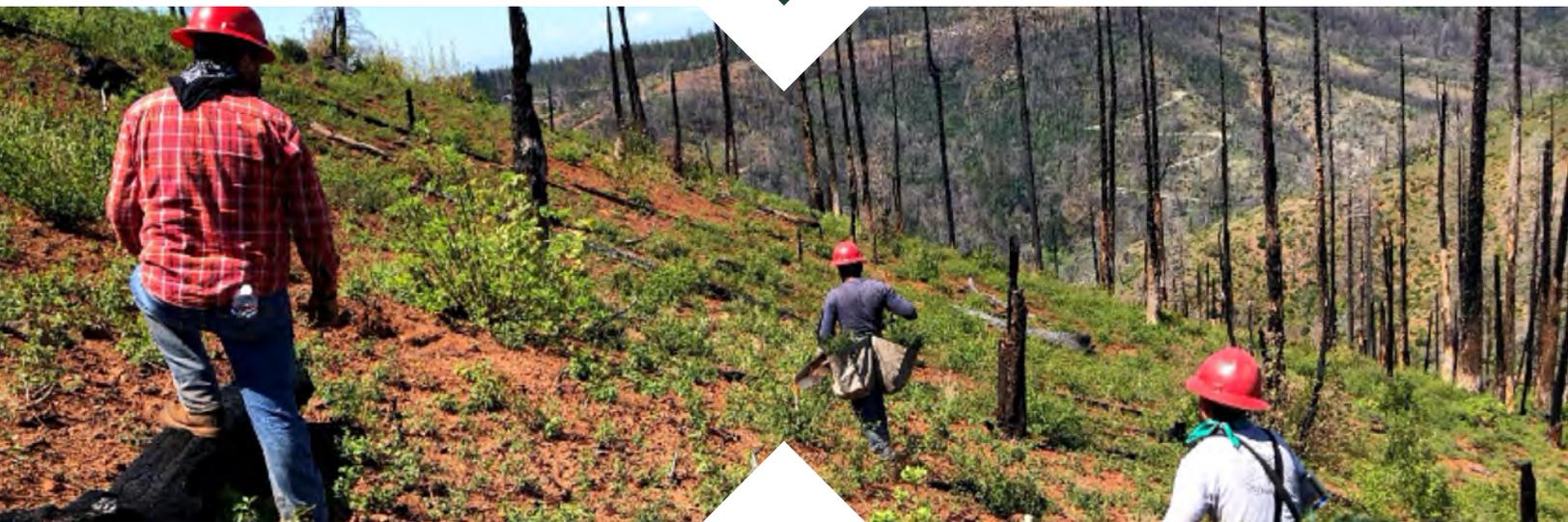




AMERICAN FORESTS
- SINCE 1875 -

Restoring America's Forests for Wildfire Resilience in a Changing Climate

*Organizational Strategy and
Policy Agenda*



Restoring America's Forests for Wildfire Resilience in a Changing Climate

Fire is a natural force with which trees and ecosystems evolved. However, climate change has combined with other factors to cause wildfires to become a major hazard to communities and the natural resources they rely on. This is because climate change is weakening and killing forests with a synergistic combination of increased aridity and heat, elevated pest and disease activity and growth in fuel load, all of which feed into more extensive and extreme wildfire. Climate change has already doubled wildfire extent since the mid-1980s and increased risk factors by 50%.ⁱ

The future is playing out before our eyes as 2050 projections for wildfire extent in California's Fourth Climate Change Assessment are on the scale of what occurred in 2020.ⁱⁱ We can expect the situation to worsen in coming years. For each degree Celsius of warming, we are likely to see a 200–400% increase in wildfire extent in the West,ⁱⁱⁱ with up to a 600% increase by mid-century if carbon emissions continue unabated.^{iv}

One hundred and ten years ago, the “Big Burn” stirred the national consciousness and set a well-intentioned but flawed policy agenda of an aggressive pursuit of absolute fire exclusion from ecosystems adapted to and shaped by fire.

Combined with climate change and other factors, fire exclusion policy is a significant contributor to the forest health crises we are now facing.

At least one estimate suggests that 26% of national forests (55.4 million acres) are rated as being in “poor” or “very poor” condition, requiring some type of treatment or natural disturbance to shift degraded conditions to at least “moderate.”^v As much as 60% of California forests and 40% of dry forest types in Oregon and Washington are significantly departed from their natural fire regime and require modifying forest structure and reintroducing fire.^{vi, vii}

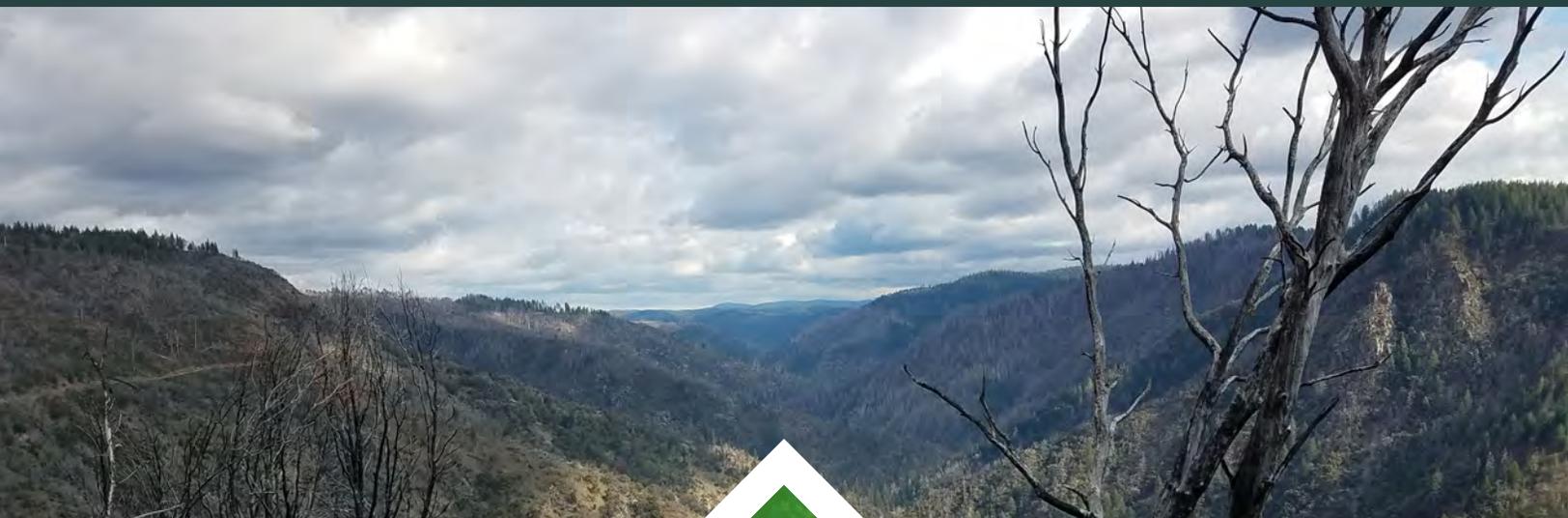
The climate-fueled wildfire threat is most acute in western states, but it's rising nationwide, including in diverse eastern landscapes like the southeast and New Jersey's Pine Barrens.^{viii} This document articulates American Forests' organizational strategy to advance wildfire resilience across our nation's forests through climate-informed forestry, including policy shifts to facilitate and fund needed actions. This must be complemented by comprehensive action on climate change across all sectors, because climate change is the underlying driver of our wildfire crisis.

The Framework

To address this crisis, American Forests is calling for a forest wildfire policy framework that:

- » Addresses, over the next 5 to 10 years, wildfire threats to communities and high-value infrastructure such as drinking water source areas,
- » Focuses long-range landscape-scale prioritization, work planning and resource allocation over the next 10 to 20 years,
- » Expands funding and capacity for cross-boundary public-private partnerships for large “all lands” projects,
- » Ramps up development of science-management partnerships to advance climate-informed forestry, including the deployment of prescribed fire and managed wildfire at scale,
- » Advances science-based climate-informed forest regeneration in fire scars,
- » Creates a 21st-century forestry workforce to help our forests and communities adapt to climate change and find their capacity for resilience.

For each degree Celsius of warming, we are likely to see a 200–400% increase in wildfire extent in the West, with up to a 600% increase by mid-century if carbon emissions continue unabated.



Our Agenda for Climate Resilient Forestry

The nation needs a defining climate-smart shift in forestry and related public policy, comparable in scale to what occurred following the 1910 Big Burn, but taking us in a very different direction. Forests and communities need to be protected from, and resilient to, the effects of climate change and its amplifying effects on disturbances like wildfire, which will require very proactive forest management.

We need a 20-year road map on forests and wildfire. We need to take actions today that prepare our forests for anticipated climate-driven changes as we approach mid-century. It is time to pivot to a new policy framework for America's at-risk forests – one which immediately addresses high-risk forests and systematically prioritizes and helps remaining forests adapt to climate effects over the next 20 years.

1. RISK MANAGEMENT AND PRIORITIZATION

a. **Focus on reducing high-risk fuel loads** in and around communities and preparing communities for wildfire.

- **Strategic Planning:** Over the next five to 10 years, it should be national policy to prioritize reducing fuel loads in and around communities and to prepare these communities for wildfire. This approach should build upon existing policy like the [National Cohesive Wildland Fire Management Strategy](#) and [Shared Stewardship](#).

A national policy should direct coordination across all land ownerships and jurisdictions to identify and prioritize high-risk high-value community fireheds where the greatest risk reduction to people and life-sustaining infrastructure (e.g. natural and gray water infrastructure) can be achieved over the next 10 years through a combination of community preparedness (e.g. Community Wildfire Protection Planning, Firewise, etc.) and right-sized hazardous fuel reduction treatments. Note that fire suppression will still be necessary when life and property is at risk, but resources need to prioritize addressing fuel loads and fire safety in and around communities. Critical elements for success include:

- » Risk-benefit assessments for prioritization: Employ tools for natural hazard mitigation planning such as the [Scenario Investment Planning Platform](#) to model fire risk to communities and other high-value resources and assets (HVRAs) like drinking water source areas. Likewise, quantify anticipated benefits of reducing fuel loads in priority areas.
- » Joint prioritization: Signatories of shared stewardship agreements should collaboratively engage stakeholders in shared stewardship prioritization processes intending to result in broad agreement within states about: (i) priority areas for fuel reduction projects for community protection, (ii) where multi-agency resource coordination and investment is most needed for treatments across all land ownerships.

1. RISK MANAGEMENT AND PRIORITIZATION (continued)

- **Project Development:** In high-risk, high-priority areas in and around communities, we must:
 - » Identify desired future forest conditions, factor in anticipated changes in vegetation, precipitation and other factors associated with climate change.
 - » Plan for all treatments needed to achieve desired future conditions, including:
 - » Thinning forests not ready for reintroducing fire
 - » Deploying “prescribed fire” within fire-adapted forest types to manage fuel loads
 - » Other climate-smart forest management (e.g. using harvesting to adjust forest composition for increased climate resilience)
 - » Encourage managers and landowners to engage in project planning and implementation activities.
 - » Co-fund priority all-lands projects in priority places through shared stewardship.
 - » Increase U.S. Forest Service hazardous fuels line items to implement and prioritize treatments on national forests based on risk assessments. Direct use of hazardous fuels funding to the backlog of NEPA approved projects.
 - » Increase matching block grants through USDA Forest Service State and Private Forestry to state forestry and natural resource agencies to complete prioritizations, fund fuel reduction treatments with private landowners in priority project areas, such as the top priority community fire sheds and/or landscape prioritizations completed as part of shared stewardship agreements.

b. Working at the scale of landscapes, we must systematically prioritize and help at-risk forests adapt to climate effects over the next 20 years.

- **Strategic Planning:** Land managers must coordinate across land ownerships and jurisdictions to identify and prioritize areas to focus resources for planning and implementing landscape-scale forest resilience projects over a 10- to 20-year period. This can align with state Forest Action Plan development. Critical elements for success include:
 - » Integrate climate-informed science into prioritization (see section III).
 - » Build upon the model of strategic long-range planning (i.e., 10- to 20-year plans for project planning and implementation) that states like Washington, Montana, New Mexico, Colorado and California are pursuing via their Shared Stewardship agreements and Forest Action Plans. Provide technical and financial assistance to states and Forest Service Regional Offices to complete these plans by the end of the 2021 calendar year.
 - » Ensure public trust through public engagement and collaboration, transparency and accountability.

1. RISK MANAGEMENT AND PRIORITIZATION (continued)

- » Acknowledge that certain areas are higher priority and will receive resource allocations first, but that priorities will shift as forest conditions improve over a 10- to 20-year period, which means resource allocations will also shift.
 - » Significantly leverage federal and non-federal funding for priority areas on all lands through programs such as the [Collaborative Forest Landscape Restoration Program](#) and [USDA Joint Chiefs' Restoration Partnership](#). Program budgets must scale to meet restoration actions prioritized in long-range plans.
 - » Align national forest 5-year plans and Forest Plan revisions with state-level long-range planning and prioritization so that work done on national forests aligns with jointly prioritized long-range plans.
 - » Achieve closer alignment and coordination of U.S. Forest Service budgeting processes and timelines with state agency budgeting processes and timelines.
- ***Project Development and Implementation:***
 - » Catalogue and make information public, in both an easily accessible, visual map and descriptive list format, federal acreages in all western states falling within priority areas for which a National Environmental Policy Act (NEPA) Decision already exists (e.g., approximately 2 million acres in Oregon). Expedite funding and capacity needed to execute planned work in these areas over the next five years (2021–2026).
 - » Conduct analyses of forest conditions and needed treatments to achieve desired future conditions, generally at a 12 HUC subwatershed scale (30,000–40,000 acres) or larger.
 - » Prioritize areas for investment in 10- to 20-year work plans through tiered ranking of landscapes at the 100,000–200,000 acre scale where a lot of work is co-located.

This approach will:

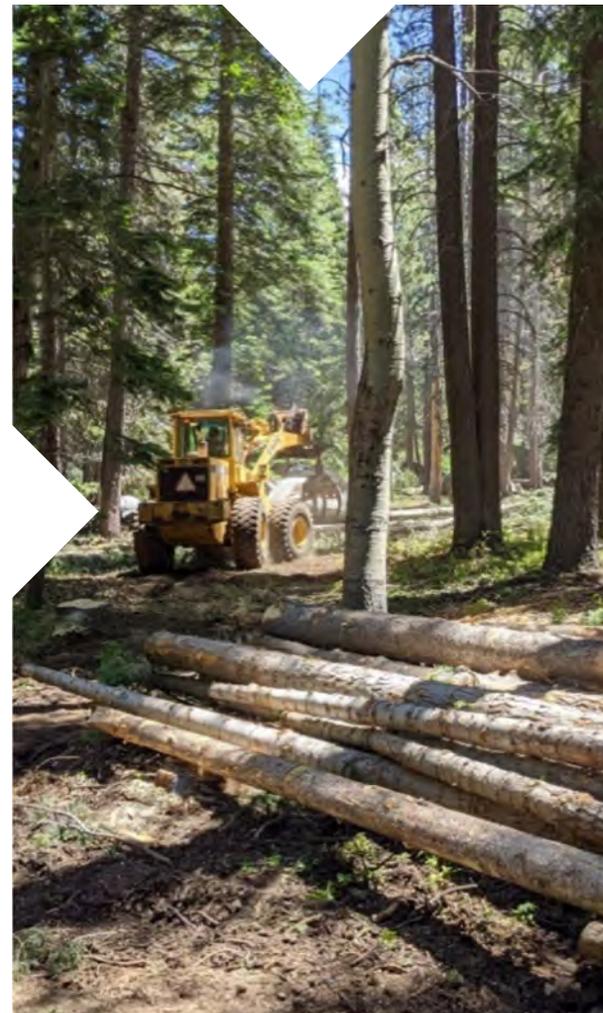
- Expedite progress on lands for which NEPA is already completed;
- Engage the public in collaborative planning and implementation;
- Gain public trust through transparency and accountability as land managers document accomplishments and communities see reduced risks and other desired outcomes;
- Align state planning and prioritization processes (e.g., Forest Action Plans) and federal lands planning (e.g., national forest 5-year plans); and
- Develop workforce capacity and wood processing infrastructure, and enhance local economies commensurate with the scale and pace of work planned over a 10- to 20-year period.

Our Agenda for Climate Resilient Forestry

2. PUBLIC-PRIVATE PARTNERSHIPS

- a. Expand cross-boundary public-private partnerships, and institutionalize them with needed policy, legal agreements, funding, and wood product market development.
 - Codify the USDA Joint Chiefs' Landscape Restoration Partnership (Joint Chiefs') in federal legislation to:
 - » Target Joint Chiefs' funding for "all lands" projects that address priority fuel loads adjacent to communities and high-priority projects identified through strategic planning initiatives (see 1a and 1b).
 - » Double 2020 investment level to annually authorize \$100 million for Joint Chiefs'. Double the number of projects funded by the Joint Chiefs' over the next five years (from 16 new projects selected in FY 2020 to 32 new projects selected in FY 2025).
 - » Encourage strategic leveraging of non-federal resources and funding within Joint Chiefs', including innovative restoration financing tools like forest resilience bonds.
 - Sustain and increase funding for the Collaborative Forest Landscape Restoration Program to \$150 million annually. Seek opportunities to target grant resources to high-priority projects identified through strategic planning initiatives (see 1a and 1b).
 - Leverage the [Wood Innovations Grant Program](#) of the Forest Service to support wood biomass market development in places capable of supporting projects within identified priority areas (see 1a and 1b). Support State Wood Energy & Utilization Teams and parallel initiatives (e.g., Washington's Carbon Leadership Forum) to create market development plans for identified priority areas (see 1a and 1b).
 - Advance the wood products market development policy recommendations of the [Forest-Climates Working Group](#).

26% of national forests are rated as being in "poor" or "very poor" condition.



Our Agenda for Climate Resilient Forestry

3. INCREASED PACE AND SCALE OF CLIMATE-INFORMED FORESTRY

a. Support continued development of science-management partnerships to advance climate-informed forestry principles to reduce threats of tree mortality, uncharacteristic wildfire, continued wildfire exclusion and vegetation type conversion post-fire.

- Seek opportunities to better integrate the work of existing climate-science institutions (e.g., USDA Climate Hubs and Department of the Interior Climate Adaptation Science Centers, directly to managers' decision-making, forest and land management planning and landscape-scale environmental analyses.
- Utilize the work of integrated climate-science institutions in state-level all lands long-term landscape-scale prioritizations (see 1b).
- Propagate comprehensive "all lands" guidance for climate-informed forestry principles and practices for all facets of forest management.
- Accelerate integration of climate science into land and resource management planning on federal public forests of the U.S. Forest Service and Bureau of Land Management (see 1b).
- Provide new funding through the USDA Forest Service State and Private Forestry to state forestry and natural resource agencies to advance climate-informed forestry in states facing forest health crises.

b. Deploy prescribed fire and managed fire at scale, using appropriate safety techniques and mitigation efforts to lessen air quality impacts.

- Establish a 10-year national goal with interim targets for using fire based on a science-based assessment of the need and opportunity for deploying prescribed fire and managed wildfire in priority project areas.
 - » Require alignment with state-level strategic planning processes (see 1a and 1b) and corresponding work plans.
 - » Proposed interim target: By 2030, annually treat more acres with prescribed fire and managed wildfire than are burned by wildfires posing a net-threat to forests and communities. Fire suppression will still be necessary when life and property is at risk.
- Increase the use of prescribed fire as a forest management tool by:
 - » Supporting state-level assessments of the barriers to the use of prescribed fire as a forest management tool.
 - » Helping to address workforce constraints, authorizing and encouraging the U.S. Forest Service

3. INCREASED PACE AND SCALE OF CLIMATE-INFORMED FORESTRY (continued)

and Department of the Interior agencies to work through collaborative agreements with state natural resource and forestry agencies, tribes and nonprofit organizations, to increase the use of prescribed fire.

- » Linking prescribed fire councils and fire-extension programs with Centers of Excellence for Climate-Informed Forest Management.
- » Increasing federal cost-share and technical assistance via programs like the Regional Conservation Partnership Program, to increase the use of prescribed fire on private lands.
- Create a new federal matching grants program to support fire-focused forestry extension programs within western states modelled off of [Oregon's program](#). Encourage targeting this additional capacity to private landowner engagement in identified priority areas (1a and 1b).^{ix}
- Achieve public support for fire and fuels management through a significant national and locally targeted public communication campaign. This effort should include increased public understanding of the air quality and public health benefits of prescribed fire vs unplanned fires.
- Expand support for the successful [prescribed fire training exchange \(TRES\)](#) program which provides necessary training to expand the prescribed fire workforce necessary to increase the use of prescribed fire. Establish a national prescribed fire training center with satellite programs throughout the country.

c. Rapidly reforest, regenerate, and manage burned areas based on climate-informed regeneration plans.

- Fund state forestry and natural resource agencies to work with the U.S. Forest Service in states impacted significantly by the 2020 fire season to complete all-lands burned area emergency assessments and climate-informed regeneration plans.
- Increase funding for the Emergency Forest Restoration Program, which helps private forest owners recover post-wildfire.

As much as 60% of California's forests are significantly departed from their natural fire regime.



3. INCREASED PACE AND SCALE OF CLIMATE-INFORMED FORESTRY (continued)

- Address post-fire reforestation needs on national forests by eliminating the cap on the Reforestation Trust Fund (i.e., The REPLANT Act). Prioritize reforestation funding to areas of greatest need based on post-fire assessments and possible areas of greatest impact to communities (e.g., drinking water source areas).
- Create a similar reforestation fund for Department of Interior agencies to address reforestation backlogs. DOI has an equal area suitable for reforestation (over 7 million acres) as USDA, but plants less than half as many trees on federal lands each year—only about 20 million trees per year.
- Increase pre- and post-disaster funding managed by the Department of Homeland Security (FEMA) or in federal budget emergency supplementals to account for the increased demand for all lands burned area emergency assessments and response plans.

The nation needs a defining climate-smart shift in forestry and related public policy...We need a 20-year road map on forests and wildfire.



Our Agenda for Climate Resilient Forestry

4. CREATE A 21ST CENTURY FORESTRY WORKFORCE

Reforestation and other restoration and fuels reduction actions engage a broad workforce which includes those who: grow, plant and maintain seedlings and trees; monitor and manage forests; develop reforestation projects; use heavy machinery to prepare sites; and protect stands by thinning, removing hazardous fuels and conducting prescribed burns. Job categories include conservation scientists, foresters, forest and conservation technicians, forest and conservation workers, logging equipment operators and fire protection and prevention workers.

a. Expand federal forestry workforce.

- Offer full-time positions that incorporate fire protection and prevention and restoration functions.
- Expand forest restoration work training at USDA Job Corps Centers.
 - » The 24 [USDA Job Corps Civilian Conservation Centers](#) are well positioned to ramp up training for at-risk youth 18–24 to gain skills needed for entering the forestry workforce.

b. Increase training opportunities for the diversity of field forestry actions required to reduce wildfire risk and restore forests.

- Expand training capacity through federal-state partnerships.
 - » Based on existing joint emergency management programs that provide training, significantly expand training opportunities in fire protection, prevention and restoration skills by offering trainings in collaboration with states and by leveraging state and federal facilities.
 - » Establish a rural forestry workforce development program.
 - » Provide grants to state, local and private sector entities to provide vital workforce development services such as pre-employment programs and wrap-around services that include local substance abuse education and treatment and apprenticeship programs.

c. Incentivize expansion of non-federal forestry workforce.

- Build capacity of non-federal forestry workforce partners through grants and technical assistance to sustain and incubate public and private sector entities that facilitate the entry of individuals from at-risk populations into the forestry workforce.
- Address Tribal Workforce Challenges identified by the third report of the Indian Forest Management Assessment Team ([IFMAT-III](#)) by supporting the Inter-Tribal Timber Council Workforce Development Strategy.

4. CREATE A 21ST CENTURY FORESTRY WORKFORCE (continued)

- Support efforts to establish a USFS Forest-Climate Workforce Incubator grant program to assist non-federal entities in developing or expanding programs that help persons from underserved and high-need populations, such as veterans, opportunity youth, and persons returning from incarceration or drug treatment, to enter careers in forestry.
- Increase investment in the Public Land Corps to train at least 50,000 participants annually.
- Leverage existing public-private partnerships in the 21st Century Conservation Service Corps to employ youth and veterans up to age 35.
- Address technical issues in Department of Labor regulations and occupational codes that hamper forest sector growth.



Footnotes & Resources

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