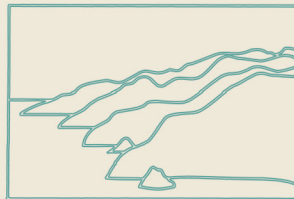


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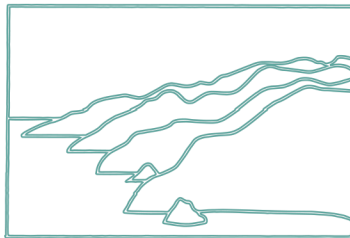
A GREEN NEW DEAL
PROPOSAL



COAST RANGE
ASSOCIATION

CLIMATE & OREGON'S INDUSTRIAL FORESTS

A GREEN NEW DEAL PROPOSAL



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Acknowledgements

Motivation to write this proposal would not have occurred if not for the leadership demonstrated by key members of Congress. Specifically, HR-109's development and sponsorship by New York Congresswoman Alexandria Ocasio-Cortez and Massachusetts Senator Ed Markey established a framework guiding the proposal's development. Support for the Green New Deal by Oregon's congressional delegation inspired confidence in our efforts.

The proposal is an outcome of over 20 years of Coast Range Association (CRA) discussions about the nature of industrial forestry. Along the path our research and learning was informed by community-based voices too numerous to list.

The document was co-written by Chuck Willer, Andrew Collins-Anderson and Lacy Todd. Editorial support and narrative content was provided by Yoko Silk, Joan Stephens and Alison Clement. GIS mapping and analysis was provided by Allie Vitello. Section III's corporate financial analysis benefited greatly from an anonymous reviewer. Tiga, Mitch, Randy, Michelle, Pen and others provided feedback to drafts of the paper. The CRA Board of Directors provided important guidance during the proposal's development and encouragement at key junctures.

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A Proposal

In Oregon and across the U.S., working people and communities suffer from compounding climate, social and economic crises. The climate emergency requires congressional leaders to advance the Green New Deal (HR-109). The Green New Deal (GND) calls for a large and equitable investment in decarbonizing the energy basis of U.S. society while transforming land management to sequester and store carbon. The enclosed proposal addresses the carbon sequestration and storage potential of Western Oregon's 4.4 million acres of corporate industrial forests.

We believe this is the first proposal to vastly increase stored forest carbon on Oregon's private industrial forests while providing social benefits to forest workers and rural communities. No similar proposal exists that scales to the climate emergency and concurrently achieves the just transition goals of the GND.

To accomplish the GND's goals, we propose two initiatives: Land reform through the buyout of most industrial forest owners and the transfer of purchased lands to locally owned and operated social benefit enterprise.

We arrived at a land reform and social benefit ownership solution by acknowledging:

- The severity and scale of the climate emergency,
- the GND's goals and requirement of an equitable and just transition, and
- an honest recognition of the exploitative nature of financially driven forest ownership.

The Coast Range Association is uniquely positioned to offer this proposal. For 25 years we have critically researched the invasion of Wall Street capital into Pacific Northwest forests. Our research into corporate forest management and our concern for rural communities guide our vision. Over the past five years, the climate crisis has increasingly influenced our advocacy. Inspired by HR-109 and the goals of the Green New Deal, and aware of the IPCC's call for atmospheric carbon removal, we went to work on a proposal for Northwest industrial forests. This document reports on our analysis and recommendations.

The Problem: Financially Driven Industrial Forestry

Pacific Northwest (PNW) forests are globally outstanding carbon sinks. Research demonstrates that Western Oregon's forests have the potential to store more carbon per acre than any other forests in the world. However, industrial timberlands have large carbon storage deficits compared to the carbon sequestration and storage potential of native forests.



To increase carbon storage on industrial lands requires a reduction in timber harvest. A reduction in timber harvest will impact the timber workforce and rural economies. A land reform transition, coupled with social benefit enterprise, is the best carbon-building pathway compared to regulation, taxation, and carbon payments strategies.

Understanding the need for land reform in the Pacific Northwest requires an understanding of the modern industrial forest business and its practice of intensive, financially efficient forestry. The purpose of a company's enterprise determines its forest management strategy. Current corporate forest management is based on maximum financial return to investors. Corporate timber firms maximize financial return by:

- Lowering regulatory and taxation costs through political power and influence;
- adopting exploitive labor practices that harm workers and communities;
- using financial cut cycles that lower timber production and result in landscapes of small, low-carbon storage plantations;
- buying out small landowners, which depopulates rural areas and harms local economies.

The contracted workforce of logging, hauling, and reforestation workers all experience flat wages and declining work quality conditions, while the corporate timber firms export profits to distant, wealthy investors. Hundreds of independent firms do the logging, hauling, road building, and reforestation. Of particular concern are people of Mexican and Central American heritage who generally make up the workforce of contracted reforestation workers and who work under terribly exploitive and oppressive working conditions.

The colonization of Western Oregon's rural forests by finance capital has reshaped the rural economy, resulting in economic hardship, depopulation and a shrinking usable land base.

The Solution: Land Reform & Social Benefit Enterprise

To accomplish a carbon transition and increase rural prosperity, we draw inspiration from the 1930s New Deal, when the federal government invested in new social benefit enterprise delivering electricity and telephone service to rural communities. Today, electric co-ops and people's utility districts continue to effectively serve rural communities. These successful social benefit models provide a roadmap to new forest ownership in rural Oregon.

To be clear, we are not advocating for the nationalization of timberland. Just as with the New Deal's rural electrification, the Green New Deal's role will be to finance land acquisition through **Carbon Sequestration Grants** guaranteed through a **working forest conservation easement** on each property's title.



The legal structure of new enterprise and ownership will be the same as with electric co-ops—*state-chartered, nonprofit corporations* grounded in *local, democratic control*. And as with electric co-ops, federal tax-exempt status will be granted under appropriate easement criteria. In addition to nonprofit co-op forest companies, local governments will qualify for Carbon Sequestration Grants to acquire watersheds that provide drinking water.

The mix of specific forest management practices employed will depend on provisions specified in the carbon easements and the *democratic will of each enterprise*. Carbon Sequestration Grants will be made available to tribal governments for expanding tribal forestlands. The conversion of industrial, investor-owned forestland to new social benefit ownership meets the scale of the climate emergency while addressing a just transition for workers and marginalized communities.

In Oregon, co-ops and people's utility districts are proven and dependable business models, often more familiar to rural people than city dwellers. Land reform and new business models meet a primary goal of this proposal—to redirect profits away from investors and shareholders and into local communities and worker paychecks. While our proposal and analysis have focused on Oregon's industrial forest estate, a complimentary analysis could be offered for Oregon's agricultural lands and for rural communities across the U.S.

A new day is possible for Western Oregon's rural landscapes through a Green New Deal. We look forward to working with rural voices and community leaders on a land reform and social benefit forest agenda. The climate emergency is before us, but an equitable and more livable rural future awaits us. A better world is possible.



Climate and Oregon's Industrial Forests A Green New Deal Proposal

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Global Climate Strike 2019 by Katie Rodriguez



Introduction

The following document is a proposal to congressional leaders advancing the Green New Deal (HR-109). The land addressed is the 4.4 million acres of Western Oregon's private, investor-owned, industrial forests. The proposal aims to vastly increase stored forest carbon and provide robust social benefits to forest workers and rural communities.

To accomplish these goals, we propose two initiatives: Land reform through the buyout of most industrial owners and the creation of locally owned, social benefit enterprise similar to rural electric cooperatives currently serving Oregon's rural communities. The twin initiatives are justified by:

- The severity of the climate emergency;
- the mechanics and mandate of a Green New Deal mobilization for a just and equitable transition; and
- the exploitive nature of current industrial timberland ownership.

To our knowledge, no similar proposal exists consistent with the climate emergency's need to sequester atmospheric carbon while concurrently achieving the just transition goals of the GND.

Understanding both the climate emergency and the GND are necessary to appreciate the viability of the proposal. In Section III, we explore the facts and issues of financial forest enterprise. We now briefly state our understanding of the climate emergency and the GND.

The Climate Emergency

On July 9, 2019, Rep. Earl Blumenauer (D-OR), Rep. Alexandria Ocasio-Cortez (D-NY) and Sen. Bernie Sanders (I-VT) introduced a bicameral congressional resolution (H. Con. Res. 52) declaring the climate crisis a national emergency. The resolution was co-sponsored by over a dozen House members and six Senators and endorsed by 14 independent organizations. It states:





“Resolved by the House of Representatives (the Senate concurring), That it is the sense of Congress that— (1) the global warming caused by human activities, which increase emissions of greenhouse gases, has resulted in a climate emergency that—(A) severely and urgently impacts the economic and social well-being, health and safety, and national security of the United States; and (B) demands a national, social, industrial, and economic mobilization of the resources and labor of the United States at a massive scale to halt, reverse, mitigate, and prepare for the consequences of the climate emergency and to restore the climate for future generations;”

On November 5, 2019, over 11,000 scientists, led by Bill Ripple, distinguished ecology professor at Oregon State University (OSU) College of Forestry, signed onto a letter published in BioScience arguing it is time to declare a climate emergency. Of the six major recommendations presented by the scientists, recommendation No. 3 states:

“Nature. Restore and protect ecosystems such as forests, grasslands, peatlands, wetlands, and mangroves, and allow a larger share of these ecosystems to reach their ecological potential for sequestering atmospheric carbon dioxide, a key greenhouse gas.”

Alongside these declarations, a global climate emergency has been declared by the European Union and 1,783 national and regional governments worldwide.

The Oxford dictionary defines the word emergency as “a serious, unexpected, and often dangerous situation requiring immediate action.” The priority in responding to an emergency is situational awareness in order to take an immediate and direct response.

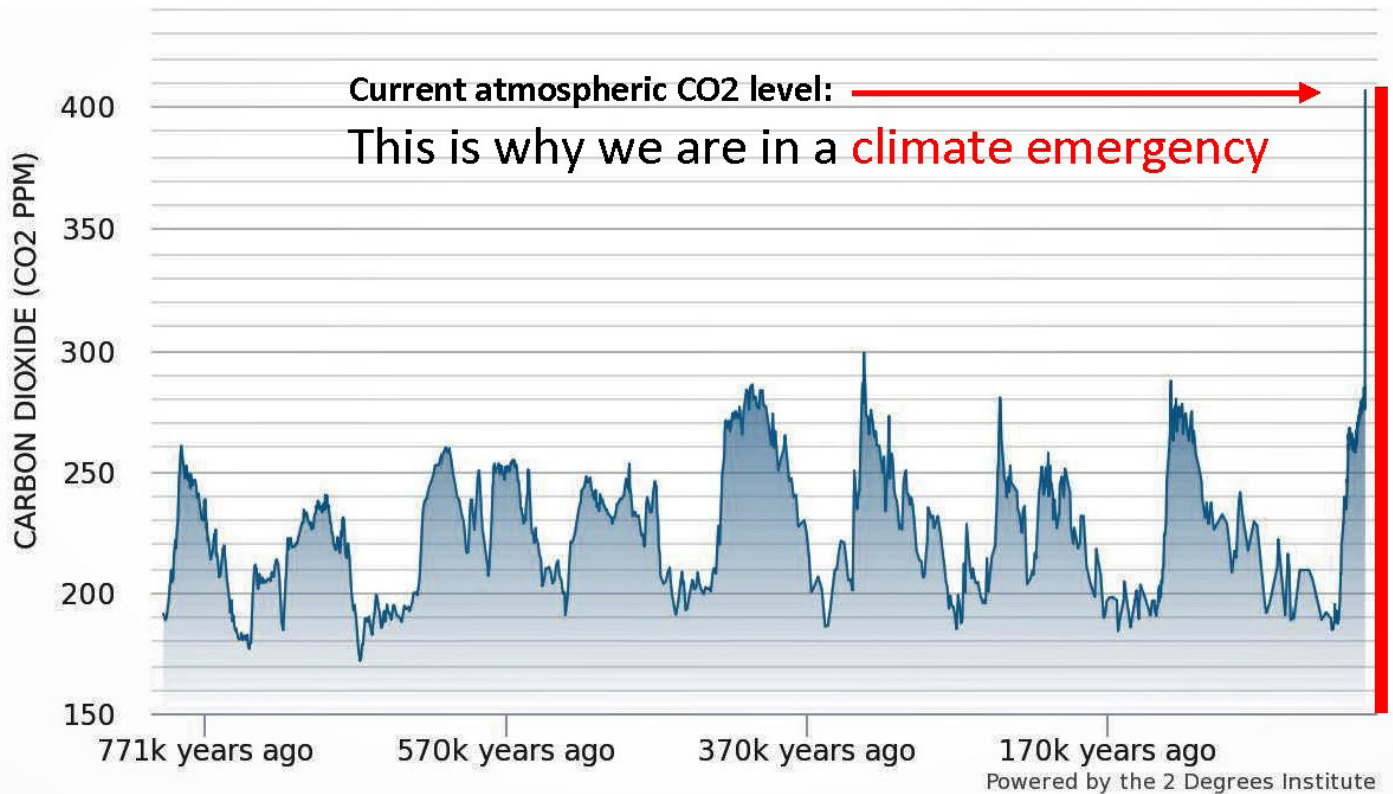
Our land reform proposal is an appropriate direct response that scales correctly to the climate emergency as a concrete proposal suggesting the full measure of atmospheric carbon reduction that our region might contribute. This document shows that land reform of the industrial forest estate must be a centerpiece of Pacific Northwest strategies to counter climate warming.

Text of the scientists’ letter in BioScience: [\(Link\)](#)

Text of the House & Senate Climate Emergency resolution: [\(Link\)](#)



Global Atmospheric CO2 Concentration (Past 800,000 years)



Atmospheric warming carbon dioxide (CO2) has rapidly risen to levels not seen for millions of years. Graph provided by the 20 Institute on 10/20/2020

<https://www.co2levels.org/#features>

Red bar and climate emergency statement added by Coast Range Association



Green New Deal: Mechanics and Mobilization

The climate emergency requires a national and global mobilization to reset the energy basis of civilization and remove current and expected future excess greenhouse gasses from the atmosphere.

In the United States, the federal government is the correct level to organize the mobilization. House Resolution-109, the Green New Deal (GND), establishes the framework for this national mobilization. In order to address the climate emergency, the GND offers the best hope for a U.S. response at a scale similar to what occurred during WWII. The GND is a set of goals and programmatic avenues that requires state, regional and local proposals for implementation. It states:

“Whereas the House of Representatives recognizes that a new national, social, industrial, and economic mobilization on a scale not seen since World War II and the New Deal era is a historic opportunity— (1) to create millions of good, high-wage jobs in the United States; (2) to provide unprecedented levels of prosperity and economic security for all people of the United States; and (3) to counteract systemic injustices.”

To date, HR-109 has been co-sponsored by 101 members of the House including three Oregon members: DeFazio, Bonamici, and Blumenauer. HR-109’s companion resolution in the Senate is Senate Resolution-59 (S. Res. 59). Fourteen senators, including Oregon’s Merkley and Wyden, have co-sponsored the Senate resolution.

Like the New Deal of the 1930s, the Green New Deal calls forth the full power of the United States’ monetary and legal systems, according to the best available science, to reach net-zero carbon emissions by 2050. The GND provides the policy roadmap for a carbon-neutral and more just society. As stated in HR-109:

- (1.) It is the duty of the Federal Government to create a Green New Deal—
 - (A) to achieve net-zero greenhouse gas emissions through a fair and just transition for all communities and workers;
 - (B) to create millions of good, high-wage jobs and ensure prosperity and economic security for all people of the United States;
 - (C) to invest in the infrastructure and industry of the United States to sustainably meet the challenges of the 21st century;
 - (D) to secure for all people of the United States for generations to come—
 - (i) clean air and water;
 - (ii) climate and community resiliency;
 - (iii) healthy food;
 - (iv) access to nature; and
 - (v) a sustainable environment; and



- (E) to promote justice and equity by stopping current, preventing future, and repairing historic oppression of indigenous peoples, communities of color, migrant communities, deindustrialized communities, depopulated rural communities, the poor, low-income workers, women, the elderly, the unhoused, people with disabilities, and youth (referred to in this resolution as “frontline and vulnerable communities”);

The Green New Deal calls for a massive investment in changing the energy basis of U.S. society. Over a 10-year period, between 10 and 20 trillion dollars would be spent toward reaching two broad goals:

- 1) Rebuilding energy production, distribution and transportation systems on a non-fossil fuel basis and retrofitting for energy efficiency the housing and commercial building stock of the entire country. Additionally, manufacturing must be weaned off fossil fuels.
- 2) Implementing a large-scale transformation of agriculture and forest management for the purpose of sequestering atmospheric warming gasses—specifically carbon dioxide (CO₂).

The GND transformation will result in a massive disruption to almost all aspects of economic and social life. The strength of the GND is that the mobilization is designed to ensure the welfare of all people in the U.S. during and after the transformation. Essential to such an assurance is a jobs guarantee. Social welfare will be rebalanced during the GND rebuilding process so that everyone is better off during and after the process. Our proposal explicitly addresses this GND requirement.

In the U.S., if income distribution remained the same in the past 50 years as it had been from WWII to 1970, 50 trillion dollars in income would have flowed to the lower 90 percent of income share households away from the top 1 percent of income earners (Price, 2020). The GND will help reset the flow of income and address the current imbalance. The proposal presented here is directly in line with correcting the income imbalance between rural and urban Oregon. Rural prosperity is a key goal for the GND and for our industrial forest proposal. Our focus is on rural, industrial forest landscapes offering a solution that sequesters atmospheric CO₂ and benefits frontline communities and forest workers in a just and equitable carbon transition.

Green New Deal Mechanics: Monetary & Fiscal Power of the Federal Government

We acknowledge that our proposal depends on the power of the federal government to affect economic change. It is the federal government that exclusively owns the monetary system, has tremendous leeway in fiscal matters, and oversees the U.S. banking system. The policy and fiscal mechanics behind the GND must be appreciated. For a proper understanding of a national mobilization, commonly held myths regarding the federal government’s monetary and fiscal operations must be set aside (Kelton, 2020).



Given the U.S. Constitution's prohibition on taking private property absent due process and just compensation, the mechanics of a carbon transition are firmly located in the federal government's powers of economic coordination and, most importantly, financing of the GND.

All institutions in the U.S. other than the federal government must ultimately constrain their expenditures to the revenues they receive, or alternatively borrow money in the commercial bond market. Commercial borrowing is costly and cannot scale to the transformation that must occur. Further, such borrowing increases the wealth of bondholders at the expense of everyone else.

With our understanding of the national monetary system and federal fiscal powers, we do not support financing the carbon transition through taxation. About 42 percent of Oregon households live month to month on their incomes and struggle to make ends meet (Hoopes, 2018). Tax and rebate financing solutions intended to reduce fossil fuel use and cushion the tax impact on economically challenged households are complicated and politically risky strategies compared to direct congressional fiscal financing.

Atmospheric Carbon Reduction Strategies

A national mobilization will be weighted toward decarbonizing the nation's energy, manufacturing, housing, and transportation systems. Rebuilding these systems will go hand in hand with a job guarantee for reasons of social stability and productive capacity. However, the climate emergency now requires proposals for massive carbon sequestration.

Energy decarbonization, energy efficiency, and full electrification in economic sectors are essential. Alone they will not meet the Intergovernmental Panel on Climate Change (IPCC) 1.5°C target. According to the IPCC, "All pathways that limit global warming to 1.5°C with limited or no overshoot project the use of carbon dioxide removal (CDR) on the order of 100–1000 GtCO₂ over the 21st century. CDR would be used to compensate for residual emissions and, in most cases, achieve net negative emissions to return global warming to 1.5°C following a peak (high confidence)" (Masson-Delmotte, 2018).

This reduction will take a national investment in large-scale, land-based carbon sequestration and storage. No new technology needs to be invented or engineering problem solved. What has to change is the way Oregon's industrial forests are managed. Oregon's forests and agricultural lands can sequester and store large amounts of carbon if appropriately managed. This document outlines our proposal for massive carbon sequestration in the state's industrial forests.

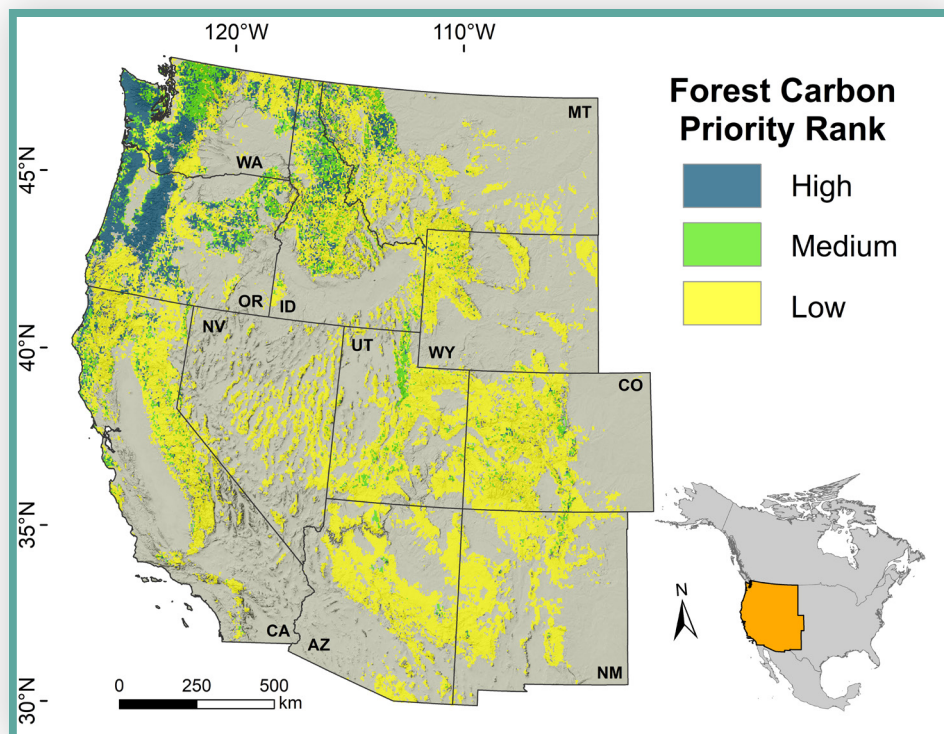


I. The Climate Crisis and Pacific Northwest Forests

The hour is late, and the climate emergency is upon us. Carbon storage through land-based sequestration is required globally, nationally, and regionally. Fortunately, Oregon's vast industrial forest estate can, and must, be employed as a critical solution in an Oregon climate emergency response. The relevance of Pacific Northwest forests to the climate emergency is not fully appreciated by political leaders or the general public. It is time to change that perception.

All forests are important for carbon storage, however studies out of Oregon State University and other research centers demonstrate that Western Oregon's forests have the potential to store more carbon per acre than any other forests in the world (Buotte 2020, Keith 2009, Law 2018). The Buotte et al. study demonstrates Pacific Northwest forests are the highest priority for carbon storage and sequestration in the western United States.

Oregon's wet forests in the Coast Range and the western Cascades are known for their unique ecological qualities and their timber growing potential. Large native forests of Oregon permanently sequester massive amounts of atmospheric carbon in the biomass of living trees and in soils. In contrast, industrial timber's landscape of small tree plantations results in a massive deficit of stored carbon compared to the prior native forest. Hudiburg et al. (2019) explores the correct approach to working forest carbon accounting in the science letter published by IOP Publishing, Meeting GHG reduction targets requires accounting for all forest sector emissions.





Meeting GHG reduction targets requires accounting for all forest sector emissions

Abstract

Atmospheric greenhouse gases (GHGs) must be reduced to avoid an unsustainable climate. Because carbon dioxide is removed from the atmosphere and sequestered in forests and wood products, mitigation strategies to sustain and increase forest carbon sequestration are being developed. These strategies require full accounting of forest sector GHG budgets. Here, we describe a rigorous approach using over one million observations from forest inventory data and a regionally calibrated life-cycle Assessment for calculating cradle-to-grave forest sector emissions and sequestration. We find that Western US forests are net sinks because there is a positive net balance of forest carbon uptake exceeding losses due to harvesting, wood product use, and combustion by wildfire. However, over 100 years of wood product usage is reducing the potential annual sink by an average of 21%, suggesting forest carbon storage can become more effective in climate mitigation through reduction in harvest, longer rotations, or more efficient wood product usage. Of the ~10,700 million metric tonnes of carbon dioxide equivalents removed from west coast forests since 1900, 81% of it has been returned to the atmosphere or deposited in landfills. Moreover, state and federal reporting have erroneously excluded some product-related emissions, resulting in 25%–55% under-estimation of state total CO₂ emissions. For states seeking to reach GHG reduction mandates by 2030, it is important that state CO₂ budgets are effectively determined or claimed reductions will be insufficient to mitigate climate change.

Environ. Res. Lett. 14 (2019) 095005

<https://doi.org/10.1088/1748-9326/ab28bb>

Only a fraction of the carbon removed from timber operations is stored in long-lived products. The slash, sawdust and offcuts are all quickly converted to atmospheric carbon through burning or decomposition. Most importantly, the carbon emission debt of the initial cutting of the native forest must be included in forest carbon accounting. Lastly, the carbon stored in building materials generally has a lifespan much shorter than argued by the industry. A building is considered historic after 50 years while, at the landscape level, forests permanently sequester and store carbon.

The Importance of Forest Carbon Sequestration Strategies

The Fourth National Climate Assessment Report from 2018 by the IPCC states that global temperatures must be kept below a 1.5 degree Celsius change from pre-industrial levels to avoid the most severe impacts of a warming climate. This will require global reductions in greenhouse gas emissions of 40 to 60 percent from 2010 levels by 2030; and net-zero global emissions by 2050. The assumption in a net-zero strategy is that by 2050, remaining carbon emissions will be fully offset by atmospheric carbon removal strategies. Here in Oregon, there is much discussion over reducing fossil fuel emissions. Still, we have not heard state leaders adequately discuss, much less propose, complementary carbon sequestration strategies.



II. Forest Carbon-Building Pathways

To increase carbon storage in industrial forestlands, forest management must change. Of the ways that forest management might change, the one unavoidable change is that some timber harvest reduction must occur. Reductions in timber harvest will impact the timber workforce and local economies. GND's "just transition" mandate requires careful attention to how a carbon transition impacts communities, vulnerable people, workers, and the general public.

Our proposal offers a carbon sequestration path not previously explored by Oregon's climate community—land reform and the reorganization of timberlands under social purpose enterprise.

The Four Carbon-Building Strategies

The speed of carbon buildup will depend on, among other things, the strategy employed to reset forest management. We identify four paths to reset forest management: regulation, tax incentives and penalties, outright payment, and land reform. No matter which carbon-building strategy is employed, each strategy must be evaluated under the GND's just transition mandate.

Assessing Carbon Strategies for Efficacy and the Just Transition Criteria

1) Regulation

Outright regulation restricting timber harvest is one way to increase forest carbon. Regulations to protect stream habitat through buffers will increase forest carbon. Longer harvest rotations, which allow trees to grow past financial maturity, eventually increase timber output while sequestering carbon. Such regulation has a strong appeal, however, timber companies will argue a regulatory taking on the basis of financial loss. Such regulatory measures could cause Wall Street investors to reduce their position in Oregon's major timber firms, thus impacting timber company stock values.

The most obvious problem with outright regulation is that the strategy directly challenges the modern timber firm's operating basis, that of financial forestry and maximum return to investors. To effect timber management **at the scale of the climate emergency** requires state regulatory intervention well beyond the political and financial capacity of the state of Oregon.

Outright harvest reduction through regulation reduces cash flow companywide. Regulation impacts the entire corporate hierarchy—from low paid reforestation workers up to investor owners. However, for example, a 30 percent reduction in reforestation workers is far more harmful to families than a 30 percent reduction in one company's dividends going to the wealthy class of people invested in U.S. equities. We believe this is an important fact in assessing any carbon pathway strategy. Regulating forest management to address the climate emergency and provide for a just transition requires a sensitivity to how



impacts are distributed among forest workers, timber-dependent communities, and the investor class that owns the industrial forest estate.

State-level forestry reforms for water quality and wildlife protection are much needed in Oregon. However, modern reforms are nowhere at the scale required for the climate emergency. Forest practices and forest taxation reforms will help internalize costs now borne by the public. The degree to which modest forestry reforms for water quality, fish and wildlife are opposed by Oregon's timber industry simply adds weight to the argument that financial forest ownership is incompatible with the carbon sequestration needs of the climate emergency.

2) Taxation

Encouraging forest owners to grow older forests can be incentivized through taxation. Taxation is the basis for a number of currently discussed carbon-building proposals. One option is a return to a significant portion of a new forest cutting tax for growing older forests. Removing the current subsidy exempting the forest from land valuation for property taxes and, again, incentivizing older forest growth through a schedule of tax deferrals is another option.

Tax incentives require the people of Oregon to assume the cost for forest carbon buildup. The problem with Oregon's citizens bearing the cost is that Oregon's timber industry is a national productive asset. Oregon produces 16 percent of the nation's softwood lumber, the largest percentage of any state, but only represents 1.2 percent of the U.S. population. Arguably, Oregon's cost share of a forest carbon transition should be 1.2 percent.

3) Carbon Purchase

A third strategy is simply to pay a timber firm to defer harvest past the timber's financial maturity. A carbon-sequestering payment system would include, at a minimum, a source of funding and a specified contractual arrangement between the timber firm and a third party.

In 1996 the Washington Forest Landscape Project proposed such a strategy for the purpose of increasing forest diversity for wildlife. More recently carbon payment strategies were touted based on carbon credit schemes, but payment strategies have produced few results. The problem is that carbon price does not match a timber firm's assumed opportunity cost of harvest deferral.

Market-based cap & trade programs are a blend of all three strategies—regulation, taxation and payments. Carbon pollution regulations across the state's economy place a limit on a firm's carbon emissions. The firm then buys pollution credits to continue its carbon pollution. Revenue from the sale of pollution credits is used to pay for carbon sequestration.



Beyond their observed limited success, the problem with cap & trade schemes is that the geography of injustice, so characteristic of modern industry, remains unaddressed or is exacerbated. For example, if Chevron buys carbon pollution credits for its refinery in Richmond, California, and those credits end up purchasing increased forest carbon in coastal Clatsop County; the outcome is that many low-income people of color in Richmond continue to suffer from Chevron's refinery pollution and an affluent, predominantly white population of coastal homeowners see fewer clearcuts and likely get improved water quality. The current organization of U.S. industry is racist in its built geography. Cap & Trade models do not address the legacy of systemic racism in U.S. industry and may actually create worse environments for people of color who are disproportionately living in poverty.

In summary, there are injustices built into almost all taxation, regulation and payment strategies—some more harmful than others. Tax incentives and outright carbon payments place the cost of harvest reductions on workers and communities, while top-level management and investors remain unaffected. Tax incentives and outright carbon payments also face the problem of state funding cuts in an era of state budgetary crisis. At the scale of the climate emergency, we find state tax and payment strategies politically unlikely to gain traction and unaffordable.

4) Land Reform

Unexplored in Oregon are carbon-building strategies based on land reform. A land reform carbon strategy shifts the focus to land ownership and the purpose of forest owning enterprise. Given the state of industrial forests and modern agriculture, land reform is due for a careful evaluation as a carbon strategy.

The notion of acquiring land for conservation objectives and social benefit is well established and accepted in the U.S. Two Oregon examples are the North Coast Land Conservancy's work to acquire significant forest area near Cannon Beach and Ecotrust's Forests & Ecosystem Services program. Ecotrust has always understood financial forestry and the problem that ordinary capital markets pose for forest management.

While land reform has not been a tradition in U.S. politics, one only has to look south of the U.S. border where land reform was at the heart of the 1917 Mexican revolution. Given the compelling argument for Northwest forest carbon sequestration explored in Section I, coupled with the fact that private forests in Oregon are dominated by investor capital, any climate strategy not visiting land reform is remiss in its responsibility to uphold a just and fair carbon transition.

We will discuss land reform in detail in Section IV.



III. The Nature of Industrial Forestry

We believe that a just transition strategy requires understanding the nature of the modern industrial forest firm. In this section, we provide an analysis that motivates the GND and industrial forest proposal.

What we see on industrial forestlands is intensive forest management. Intensive forest management typically takes the form of seedling cultivation, artificial fertilization, the use of pesticides, and rodent control within silviculture based on even-aged plantations, financially efficient rotations (planting to final harvest time) and clearcut harvest methods.

We see the impacts of industrial forestry across the rural landscape in:

- 1) The loss of native plant and animal abundance. The loss of native forest habitat and salmonid stream habitat are two of the most evident outcomes.
- 2) Numerous impacts on watershed hydrology and soil stability.
- 3) A racist and class-based organization of labor that slots people into geographies of affluence and geographies of limited economic opportunity. Everywhere in rural towns adjacent to forests, there is a population of dispossessed people.
- 4) A 60-year trend of corporate land ownership expansion that impoverishes rural landscapes through depopulation and the loss of small landholder enterprise.
- 5) Accompanying corporate forestry's control of rural land is a dysfunctional property tax system that fails local government.



Weyerhaeuser's Millacoma forest in Douglas County (Photo: Francis Eatherington)

But we must not let what we see distract us from the nature of what we are addressing—the forest owning corporate firms mandated to practice intensive, financially efficient forestry. We must understand the business enterprise of today's dominant timber landowners in order to advance an authentic Green New Deal proposal.



Quest for Efficiency

Forest investors generally subcontract their forest management to a timber investment management organization (TIMO) or the land is owned outright by a corporate timber company—often organized as a real estate investment trust (REIT). In either case, forest management corporations generally subcontract all or most timber operations such as logging, road building, hauling and replanting. This fact motivates our GND proposal and will be addressed at length.

The timbering enterprise consists of three distinct parts:

- 1) Harvest scheduling, harvest contracting, and internal log consumption by its forest products divisions, and/or log sales to unrelated third parties;
- 2) Silviculture (the science of growing trees) activities for seedling production, pest control, stand fertilization, and growing stock management to maximize tree growth and minimize tree loss and damage.
- 3) Non-timberland management (e.g., hunting and recreational use) and road building and maintenance. Road building involves a considerable production of aggregate rock. Few people realize that aggregate rock production and road maintenance occupy a large share of the timber firm's forest operations.

In each area of operation, the quest for efficiency is ongoing through the adoption of new techniques and machines that streamline work and reduce the size of the workforce. Such efficiencies drive competitive pressures to lower labor costs. As with almost all U.S. enterprise, blue-collar productivity has increased over the past 40 years, while inflation-adjusted wages remain flat. This fact is hidden through use of the much advertised average wage in the wood products industry—not the median wage—which reflects the lower half of workers' wages.

Quest to Lower Costs

Private, for-profit businesses constantly work to lower costs. This effort is ongoing and central to the enterprise. Three aspects of reducing costs are paramount to Oregon's modern timber firm:

- 1) Lower labor costs through subcontracting. Timber operations are generally contracted out to hundreds of independent firms that do the logging, hauling, road building and reforestation. Significant motivators in the quest to subcontract forest work are the extremely high cost of health insurance and the avoidance of pension obligations. Corporate employees generally enjoy quality health care and pension plans, relatively high wages, and year-round employment with job security. The subcontracted workforce is employed under far different conditions. The lowest-paid and least secure are people of Mexican and Central American heritage who make up a sizable portion of reforestation workforce.

Nowhere in the glowing descriptions of Oregon's timber companies is the subcontracted strata of race and gender-based hiring or oppressive working conditions discussed. The overall architecture of the Pacific Northwest timber firm depends on institutional barriers, communication firewalls, and the denial



of racist on-the-ground employment practices.

Since 1990, it is no accident that the invasion of Wall Street investment capital into Oregon's forests was accompanied by a transition to race-based hiring, increased workforce wage divergence, and the implementation of pervasive timber industry tax avoidance. Finance capital and its corporate clients will engineer and rationalize all manner of cost savings no matter the human cost.

2) Lowered regulatory and taxation costs through political power and influence. Little appreciated by Oregon voters is the degree of regulatory and tax cost savings that corporate timber firms have masterfully engineered in the state.

Only recently, through the Oregonian's *Polluted by Money* series, has the severity of corruption in Oregon's electoral system been revealed. Oregon is one of five states that have no campaign finance limits. Oregon is the 27th largest state by population but ranks sixth for total corporate money given to the average lawmaker and is first for per capita corporate giving (Davis, 2019). And it's all perfectly legal.

The corruption of political purpose in Oregon has been engineered by the dominant political force in the state—the timber industry. The outcome is a complex property tax system created through ballot measures and legislation that provides a low tax burden for timber companies. Since 1990 and the rise of financial forest management in Oregon, state tax breaks and subsidies have been worth billions of dollars to the industry. Additionally, the timber industry has avoided seriously warranted environmental regulations. Oregon's forest regulations for water quality and stream habitat protection are far behind other West Coast states.

3) Lowered opportunity costs through financial management. Corporate firms operate using a discounted cash flow model based on, in part, the business principle of opportunity cost. Typically, timber companies use their models to estimate if timberland investment opportunities meet their return thresholds. The way opportunity costs are assessed is focusing on the spread between the anticipated present value of a timberland project's initial and future investment costs and the present value of the project's revenues through the timber rotation cycles. Which is to say, forest growth is discounted to the present point in time at a compound interest rate, called the discount rate. If the spread is negative the project is rejected, or, re-evaluating the 'forest' investment during the rotation cycle, it may be time to cut. Based on how an investment pencils out, a company may **believe it is losing money each year harvest is delayed.** Most corporate timber firms directly grow money, and indirectly grow trees.

In addition, to optimize investor capital return, an Oregon timber firm may evaluate return opportunities on their lands through conversion of existing lands to more profitable non-timber use, or by looking outside the region for higher return timberland investments. Firms are constantly comparing investment alternatives. Why should a timber firm operate in Oregon with investor capital if it can make a better return in Chile, Tasmania or Arkansas? Corporate management always asks the question, "What is our opportunity for profit elsewhere?"



If this way of viewing the world seems surprising, remember that this presentation is about money and how it might be invested in a project. The business of financial capital is far different than an ordinary small business that sells goods or services. That’s why we often remind people to appreciate the actual enterprise of many large timber firms—they grow money.

But we know that **optimal financial cut cycles** sacrifice saw timber production. Depending on growing conditions, the industry is losing 20 percent to 50 percent of the saw timber harvest volume through financial management (Curtis, 1994) even though, for example, close to 70 percent of Weyerhaeuser’s Northwest timber production is used for structural lumber.

We also know that if today’s low, financially driven harvest volume were reduced to build forest structure, the amount of timber harvested in the future would recover and likely pass current output while providing for greater stored forest carbon. This fact of silviculture (Curtis, 1994, 1996) has helped shape our proposal.

Quick Look: Weyerhaeuser

The Northwest’s largest corporate timberland owner:

Washington – 1,297,000 acres
Oregon – 1,591,000 acres

2019 Net log sales OR-WA to outside customers: \$740.0 million
2019 OR-WA sales inside company: \$226.3 million
2019 Total OR-WA sales.....\$966.3 million

2019 Delivered log prices:

Domestic logs — Douglas fir #2 Sawlog bark on \$665 MBF
Export saw logs - #2 bark on - Coastal - Douglas fir - Longview \$836 MBF

OR-WA standing timber inventory – millions of tons:

Douglas fir/Cedar 161, West Whitewood 31, Hardwood 13

Of Weyerhaeuser’s \$2,121 million in 2019 net timberland sales, \$740 million were logs sold to unaffiliated third parties from their WA & OR Timberlands.

(See the Investor section of weyerhaeuser.com. In the [Investor Toolkit](#) section open the 2019 Weyerhaeuser Factbook document.)



Quest for Maximum Forest Revenue

Timber firms seek to maximize Gross Income (GI), also known as gross profit, from their timberland operations. Gross Income is simply the timber operation's net sales less the direct costs of producing their products, also known as Cost of Goods Sold. Eliminating non-cash expenses such as depreciation, timber depletion, and amortization (DDA) that may be included in cost of goods sold, Gross Income can be considered a proxy for the timber operation's cash flow. Gross Income makes up the bulk of the firm's total overall operating cash flow. This quest to maximize Gross Income can result in more timber cutting during periods of high log prices. Maximum Gross Income is achieved by seeking the most revenue on log sales and minimizing direct production costs at the timber operation level.

From Gross Income, the company pays additional corporate Operating Expenses. However, the relevant number for our story is earnings before interest, taxes, depreciation, depletion and amortization (EBITDDA). A timber firm's EBITDDA is a proxy for the company's overall operating cash flow, and financial services companies (i.e. banks) and investors use EBITDDA to assess the financial health of the company's core businesses as compared to its peers. A large EBITDDA signals the firm's timberland operations generate significant Gross Income cash flow, and that the firm is likely highly profitable. Depending on forest products markets, Pacific Northwest forests generally produce a large EBITDDA number. Weyerhaeuser's CEO, Devin Stockfish, in 2020 shared with potential REIT investors that his company has 'the highest EBITDDA per acre vs. peers for the last 8 years.'

The quest for high Gross Income in a company's timber and land management operates within the broader frame of financial management, using discounting and other elements of efficient money use. The result is a double ring of pressure limiting cash flowing into rural communities.

While investors may be impressed with management reports, the outcome of the quest for a sizable EBITDDA number is that the least number of dollars are left locally. A large volume of cash flowing into major timberland firms, generated from local production, heads away from rural communities, to service corporate overhead expenses, to pay investors dividends and for stock repurchases, and to pay large banks service interest and loan repayments. Financial forest management is all about the extraction and export of value from local forest operations.



Maximum Return to Investors

Where exactly does the Gross Income from forest operations go? After the direct costs of producing timber are deducted, gross revenues from timber operations are used in two basic ways:

1) Banks and debt burden: Overall corporate cash flow pays, in part, interest and principal on the firm's debt, which includes loans, such as term debt and working capital loans provided by banks and other financial institutions, and debt issued directly by the company, such as bonds and commercial paper. In other words, a significant portion of a company's cash flow goes to banks and debt investors. As of 2019 Weyerhaeuser has a debt burden of close to \$6 billion.

Only the cost of establishing the next round of plantations is spent locally in rural communities as a capitalized expense. Irrespective of how accounts are presented in a publicly traded company's 10k filing, Gross Income from local timber operations also pays salaries of all mid-level and top management, and the corporate leadership team's generous bonuses. In addition, Gross Income pays for other Operating Expenses, such as corporate advertising, lobbying, various forms of insurance, and, when publicly owned, stock buy-backs—another method of sending money to investors.

2) Investor profits: The revenue from timber operations provides the profits to owners and investors, which, of course, is the purpose of the corporate firm. While the essence of timberland management is the generation of gross revenues, the purpose of the timber firm is to return profits to owners and investors. Therein lies the basis for the double ring of pressure denying rural forest communities their fair share of the land's production value.

As noted above, there are two investor groups that receive timber revenues. One is the class of investors who own company stock. According to the U.S. Bureau of Economic Analysis, we know that 35 percent of U.S. stock market value is owned by people living outside the U.S. (See [BEA website](#)). Of those people living in the U.S. who own stock, 90 percent of all stock dividends go to the wealthiest 10 percent of U.S. households. And 60 percent of all stock dividends go to the richest 1 percent of U.S. households (New York Times, 2018). The second investor class comprises those institutions and people who buy corporate bonds (debt).

Lenders and debt holders (creditors) also share in the company's cash flow distribution for the payment of interest and principal on the company's outstanding debt. We do not have a total for the payments that Western Oregon's industrial forests provide to creditors and shareholders. If Mr. Stockfish's statement, below, at the Nareit 2020 Investor Conference is any indication, the number is quite large. Needless to say, contracted timber workers, log haulers and reforestation workers gain nothing from increased share value and/or stock distributions.



Nareit REIT week: 2020 Investor Conference: Devin Stockfish, CEO of Weyerhaeuser Presentation. June 2, 2020

Weyerhaeuser achieved \$650 Million of margin improvements since 2014
Timberlands

HARVEST & HAUL: Increase efficiency and reduce cost
SILVICULTURE: Optimize site prep, thinning and fertilization
Western Timberlands

HIGHEST EBITDA PER ACRE VS PEERS FOR THE LAST 8 YEARS
Deliver and Maintain Industry-Leading Cost Structure
Avoid Future Costs or Cost Increases

\$8 BILLION TO SHAREHOLDERS SINCE 2014
THROUGH DIVIDENDS AND SHARE REPURCHASE
(<https://investor.weyerhaeuser.com/events-and-presentations?item=104>)

Land Ownership by Corporate Forest Owners

Over the past 40 years, massive market-driven changes have reshaped the pattern of land ownership in Western Oregon. Three themes of change are worth noting:

1) A steady erosion of small landowner holdings as small holdings are bought by larger industrial owners. A 1999 Forest Service analysis of private forestland in Western Oregon states the following: “There was a net shift of 309,000 hectares [763,555 acres] from NIPF [non-industrial private forest] owners to forest industry owners between 1961 and 1994, an average annual rate of >9000 hectares. The rate of change, however, was greater between the 1961-63 and 1973-76 inventories, with an average annual rate of 12,281 hectares, than between the 1973-76 and 1984-86 inventories, with an average annual rate of <7000 hectares. The average annual rate between 1984-86 and 1994 was slightly more than 7000 hectares [17,297 acres]. The net gain of industry lands from NIPF sources was about 252,000 hectares [622,705 acres] in western Oregon from 1961 to 1994 because a total of 56,000 hectares of industry lands changed to NIPF ownership during the same period.” (Zheng and Alig. 1999)

There is no reason to believe the 1961 to 1994 trend has reversed in the past 26 years. Assuming a dramatic slowdown in the loss of small forest ownership (say 5,000 acres/year) to industrial owners, easily another 125,000 acres of small holdings have been lost.

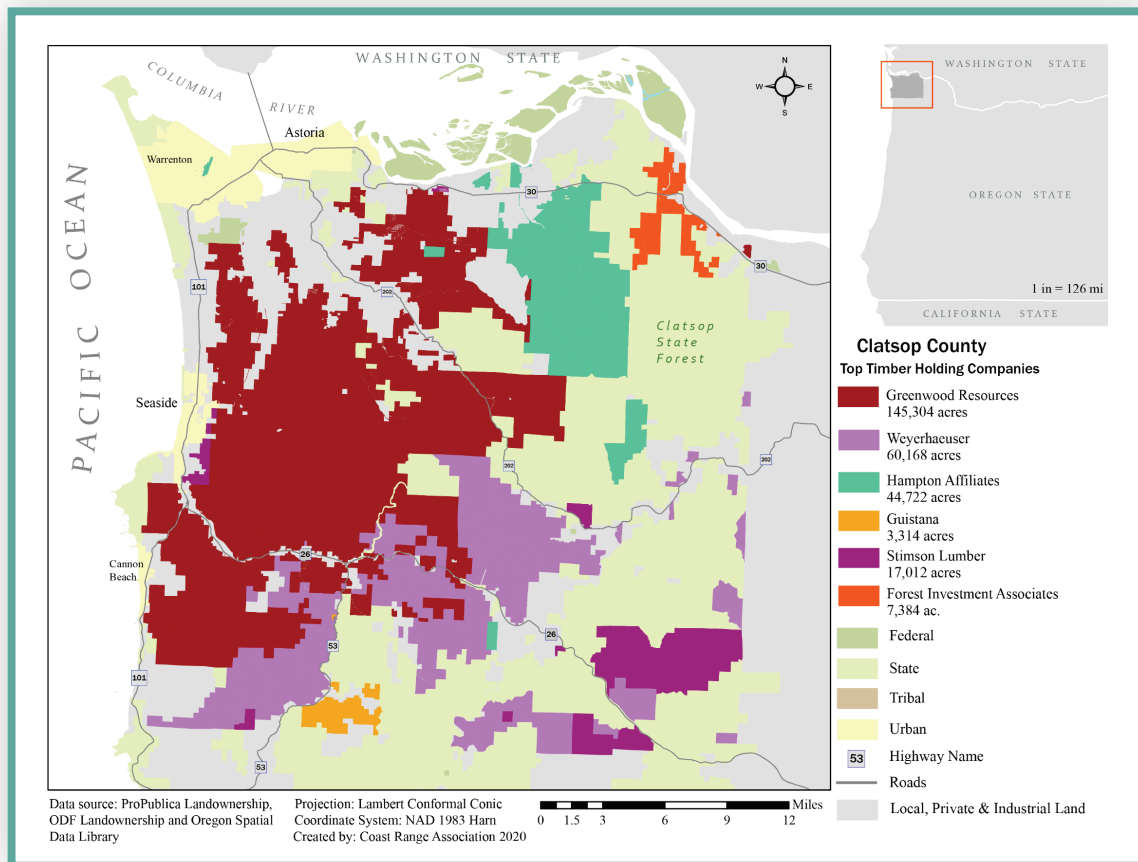
How many productive rural families have left their rural communities through the loss of up to 750,000



acres of nonindustrial ownership holdings? We don't know. But the outcome is that small rural valleys become depopulated, small bottomland agriculture ceases to exist, and associated economic activity disappears. The growth of industrial forest holdings contributes to the further urbanization of Oregon. Today, Oregon is the 19th most urbanized state in the nation.

2) The percentage of forest owned by the 10 largest industrial forest firms has steadily increased through mergers and buyouts. Today, these 10 firms dominate Western Oregon's landscape. At least 40 percent of private forestlands are owned by investment companies (Schick, 2020). In 1996, when the Coast Range Association conducted its first analysis of Coast Range forest ownership, 10 landowners often dominated each county, with 50 large industrial firms being the region's major timber owners. Twenty-four years later, private timber ownership in most counties is dominated by two or three industrial forest owners.

Western Oregon comprises 19 counties. The map below shows the major landowners in Clatsop County.





3) The timber enterprise model has shifted from historically Vertically Integrated Forest Products Companies (VIFPC), integrating their owned milling and forest operations, toward dedicated timber companies, selling logs to unrelated third-party mills, unrelated log buyers, and, in some cases, with restrictions, to its subsidiary milling companies. Driving this change are federal and state tax laws, exempting timberland owning firms and investors from ordinary corporate income tax, with income passed through to shareholders likely subject to only a dividend or capital gains tax. It is income tax law that drove companies to convert to either public REITs or private REITs whose timberland portfolios are managed by TIMOs.

Converting to a REIT eliminates ordinary corporate (i.e., C-Corp) income tax, which solves an imagined problem for affluent and wealthy people— “double taxation.”

Like many stories told in the U.S. by the wealthy, the double taxation story serves the interest of wealthy people at the expense of everyone else. A business should pay taxes because it is a material entity that requires government services. All the while, the highest income people, more than anyone else, have a huge footprint consuming socially organized government services (i.e., airports, shipping ports, etc.). The wealthy have engineered a false double taxation story.

Weyerhaeuser should pay federal income tax since it owns 2.3 percent of all private forestland in the U.S. The federal government protects the company's lands and makes possible Weyerhaeuser's interstate and international commerce. Having a corporation's federal taxes levied on “profits” is arbitrary. Taxes could be levied on a company's value added, as is the case in Europe. Taxing profits is a concession to companies which allows taxes not to be paid if the company loses money.

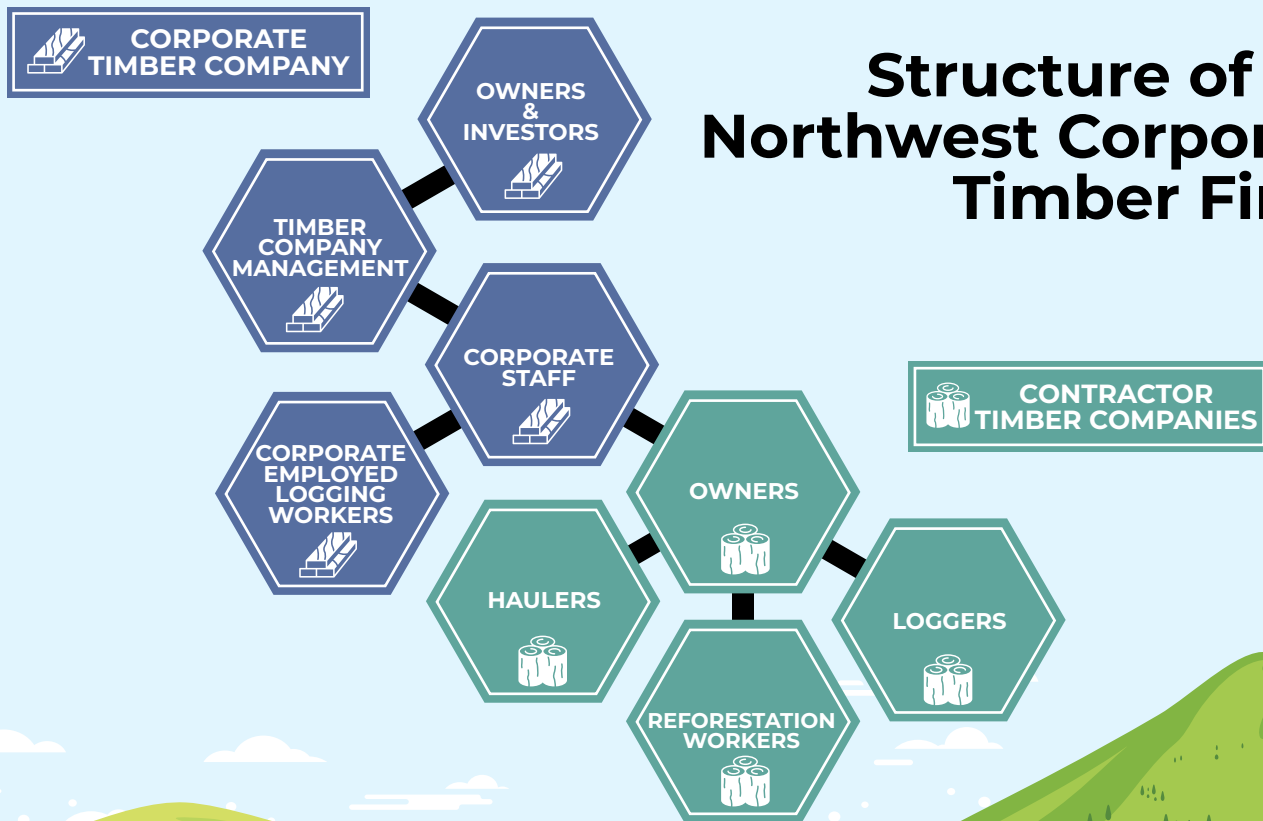
Adding salt to the wound of tax avoidance, the richest 10 percent of U.S. households, who likely get 90 percent of Weyerhaeuser's timber REIT profits, more often than not pay federal taxes at a 15 percent to 20 percent capital gains rate. The unfair federal tax system is what caused Warren Buffet to observe in 2013, “I'll probably be the lowest paying taxpayer in the office.” (Buffett says he's still paying a lower tax rate than his secretary, By Chris Isidore, CNN Money. March 4, 2013)

The Structure of the Northwest Corporate Timber Firm

Most people know Oregon's timber industry by the names they hear in the media or know of locally. Firms such as Weyerhaeuser, Greenwood Resources and Roseburg Forest Products are companies in the news. Rural people living close to a company's land holdings are often aware of who owns the nearby forest. Since we understand that a business must have one or more owners, we know that the timber industry is made up of landowner corporate firms and investors. It is in the structure below the corporate firm, where the situation becomes complicated and opaque. There are hundreds of contracting firms that do the work of reforestation, logging and hauling. In broad outline, the industry is made up of investors/owners, corporate management (working on behalf of investors/owners), subcontractor firms and a compartmentalized workforce at the level of forest operations.



Structure of the Northwest Corporate Timber Firms



The above diagram illustrates Oregon's corporate timber firm structure. A relatively lean and compact corporate firm oversees land management.



The Corporate Firm

The largest corporate forestland firm in Oregon is Weyerhaeuser and the company is a REIT. A REIT may own up to 25 percent of its value in non-forestland assets as wholly owned subsidiaries. The Weyerhaeuser Company owns approximately 40 percent of all industrial forestland in Western Oregon. Oregon's largest TIMO is Hancock Timber Resource Group, a wholly owned subsidiary of Manulife Financial Corporation. As a TIMO, Hancock manages timberlands on behalf of its landowning clients.

Rank	Company	Acres
1	Weyerhaeuser Company	1,755,069
2	Roseburg Forest Products	466,074
3	Hancock Natural Resource Group	304,934
4	Seneca Jones Timber Company	172,949
5	GreenWood Resources	166,758
6	Campbell Global, LLC	150,336
7	Cascade Timber Consulting, Inc.	144,410
8	Forest Investment Associates	137,714
9	Guistina	135,562
10	Lone Rock Resources	129,373

Data comes from CRA's 2020 forest ownership analysis (Coast Range Association, 2020)

Together, the 10 largest forest firms own around 3,563,179 acres or 81 percent of the 4.4 million acres of industrial forestland in Western Oregon.

Across Oregon's timber industry, outsourcing the day in and day out work of forest operations is the norm. One might ask: If forest owning firms do little of the work why are they here? The answer is simple: they are here to dictate financial forest management and collect the rent.



GreenWood Resources: A Financial Forest Firm

GreenWood Resources is the major forest management company in Clatsop County. The firm is a Timber Investment Management Organization (TIMO) within the global financial company TIAA. Greenwood's website illustrates the modern TIMO forest enterprise. Their website states, "Our global and regional technical centers, as well as our regional and local forestry management teams, provide the key services required at each asset, including:

- Acquisition due diligence and execution.
- Day-to-day operations consisting of:
 - Tree improvement and plant material deployment.
 - Third party contractor coordination, supervision, and monitoring.
 - Resource planning, inventory monitoring, and mapping.
 - Harvest planning and coordination.
 - Chip and log accounting and sales.
 - Ten-year operating plans with associated budgeting and forecasts.
- Management of all accounting functions of the properties.
- Administration, maintenance of records, and local compliance.
- Monthly, quarterly, and annual reporting.

Integration between investment management and the local forest management teams keeps communication open and maintains our common set of systems and procedures across the portfolio."

GreenWood Resources webpage accessed on 8-6-2020 <https://greenwoodresources.com/forestry-management/>

We can see from their website, GreenWood Resources does not perform the work of tree planting, timber harvesting or log hauling. For forest operations, they perform "third party contractor coordination, supervision and monitoring." This means they broadly organize production and plan forest management based on financial criteria. They do this by hiring contractors, which also allows them to avoid liability when things go wrong in the high-risk logging and reforestation portions of timber operations. And note that forest and land is simply referred to as the "asset."



When a corporate firm employs contractors, the firm is prohibited from the direct supervision of the timbering workforce. The owning or managing forest corporation can set standards and specify the work to be done, but the management of the contracted firm, must, by law, be in command of its employees. This means the contractor, not the firm, determines how work is performed, allowing for a convenient firewall between the corporate forest firm and its forest operations workforce.

Most timber and reforestation workers are isolated in small competing firms. Isolation limits communication between workers regarding common issues like working conditions and compensation.



The glorious imagery of laboring in timber, so often documented and on display in past eras, now appears as an anonymous machine and worker.

Logging Contractors

Commonly people see logging operations as what a timber company does. No doubt the job of falling, yarding and hauling logs is visually dramatic and the work is hard and dangerous. Increasingly, machines are replacing workers. It is common to see mechanical tree harvesters with head assemblies that fall, delimb and buck trees into log lengths using a single machine operator; computer-assisted machine controls; machine self-leveling mechanisms; and grapple carriages in skyline operations that release logs remotely. New technology in logging is designed to reduce costs by increasing labor productivity and safety.



Much research has gone into optimizing timber harvest operations by matching the right equipment to the job and ensuring an efficient workflow. Alongside logging operations is the continuous need to build and maintain logging roads. For efficiency, harvest operations are often concentrated in a local area where roads that have been seldom used for decades must be restored.

The responsibility to conduct highly efficient logging operations, assemble the right machinery and crew, and assume risk falls on the logging contractor.

At the 2019 Council on Forest Engineering's Western Region Seminar, Rex Storm, a Forest Policy Manager at Associated Oregon Loggers, provided insight into the challenging economic environment surrounding Oregon timber operations (Storm, 2019).

Mr. Storm pointed out that a set of "comprehensive ailments" now strain the relationship between a corporate timber firm and its contractors. He noted that "contract rates have become insufficient" to support the qualities that made contractor work desirable in the first place. The squeeze on contract logging rates is causing contractors to underinvest in new equipment.

Mr. Storm reviewed seven studies that explore the ailments, impacts, and potential remedies for the distressed world of contract logging, hauling and reforestation. Ailments included:

- 1) Stifling contract practices due to big timber's market power to dictate inadequate compensation. Big corporate firms are issuing "punitive" contracts that are of short duration, all leading to cut throat bidding between contractors.
- 2) Workforce turnover impedes production and safety.
- 3) Contractors are "weakened and unprofitable" and can't expand when necessary.
- 4) A malaise has set in inside the contractor world, straining relations between big corporate purchasers and contractors.
- 5) Low profits of just 4 to 5 percent are common in comparison to similar trade industries with 10 to 40 percent mean profit rates.
- 6) 100 percent of contractors report difficulties filling job vacancies.
- 7) 65 percent of contractors expect to downsize or remain the same size.

Relief does not appear to be in sight for timber contractors if we evaluate what Weyerhaeuser CEO Devin Stockfish told potential REIT investors in June of 2020. The goal to "increase efficiency and reduce cost" in harvesting and hauling likely will negatively impact timber contractors, he said. Weyerhaeuser's timberlands have the "highest EBITDA per acre versus peers for the last 8 years." Mr. Stockfish said he is proud to "deliver and maintain industry-leading cost structure" and will "avoid future costs or cost increases."



We believe that the tattered condition of timber contractors, flat wages for loggers, and abysmal conditions for reforestation workers, is simply the price paid for Weyerhaeuser's "\$8 billion to shareholders since 2014." When the purpose of a timberland company's enterprise is the "unrelenting quest to deliver value to investors" through managing, planning, marketing and accounting, then things will likely be grim at the forest operations level. The industry is now thoroughly reorganized to exploit everyone and everything in service to Wall Street investors.

Log Hauling

Ubiquitous in Western Oregon are log trucks driving the highways and byways. Given how narrow and winding logging roads are, driving a log truck requires a highly skilled driver. We look to a 2008 study of Washington state log truck operations by the University of Washington's Rural Technology Initiative to provide insight into the Northwest log hauling industry (Mason et al., 2008).

The study reported the median log truck driver age as 55 years, working an average of 43 weeks per year. Drivers worked on average five, 12-hour days per week, drove an average of 66,122 miles per year, hauled 17,336 tons of logs, and completed an average of 2.7 loads per day. 85 percent of trucks in the study were found to be greater than 10 years old indicating a "generally aging fleet." The study noted that while only 16 percent of all Washington-based commercial truck drivers were over age 55, a staggering 52 percent of the surveyed log truck respondents reported being 55 years of age or older. Drivers received either an average wage of \$16.09 per hour or were paid based on a calculation related to volume hauled.



Photo: George Eirmann

From this information, several conclusions can be drawn. Average hours worked per year are high—45 weeks averaging 12 hours over five workdays equals 2,700 hours per year. That's about one-third more hours than a full-time job. Average hourly earnings of \$16.09 per hour result in an income of \$43,200 per year. If we adjust for inflation from the study's survey period (2006), Washington log truck drivers should be earning \$56,000 today. However, online companies reporting industry wage levels suggest



that today's average Washington log truck driver earns \$49,232 per year ([SalaryExpert.com](https://www.salaryexpert.com)). Apparently, wages have not kept up with inflation.

Assuming that the majority of Washington log truck drivers are white and male, a [pay scale study](#) found that the national median annual earnings for white males peaked at \$104,100 at age 55. For males over age 50, in occupations that require long hours, the median pay was significantly higher. Older, male log truck drivers are earning approximately half the expected peak income for their race, age and gender.

The report also noted:

“Another characteristic, possibly more apparent in the log hauling industry as compared to other businesses, is the degree to which truckers regard their work as a lifestyle as much as a source of income. Discussions with truckers conducted during this investigation, corroborated by analysis of survey response data, suggested that operators compensate for challenging income situations by working extended hours of service and by doing their own maintenance and repairs. Several respondent companies indicated that wives do the bookkeeping and receive no compensation. Many independent truckers appear to accept their income as being whatever is left at year-end rather than as part of a rate calculation prior to acceptance of a haul commitment.”

From this information, it is reasonable to conclude that the log hauling profession is economically stressed and comprised of an older workforce holding on to one of the few good local jobs. Drivers driving an aging fleet is itself an indication of economic pressure and competition. Due to the high degree of skill required and the long hours with modest compensation, recruiting new drivers is an ongoing problem. The log truck workforce undoubtedly must feel at-risk from any increase in fuel prices, health care costs or taxation. Contractors and workers in logging and hauling are all under siege from the corporate firms who call the shots.

Reforestation Work

After timber harvest, by Oregon law, a clearcut must be replanted. Various post-logging work activities are performed by the “forestry services” workforce. Forestry work to re-establish a forest stand is called reforestation. Reforestation involves the repetitive planting of seedlings; navigating rough terrain; working in extreme temperatures and inclement weather; exposure to plants such as poison oak and ivy, and possible exposure to freshly sprayed pesticides. As with all contract work, there are constant pressures to work harder and faster. The Oregon reforestation workforce is dominated by workers of Mexican and Central American heritage, many of whom are employed through an H-2B temporary work visa.

We quote from the report, System Failure: Work Organization and Injury Outcomes among Latino



Forest Workers (Wilmsen et al., 2019), which focused on the health and safety conditions of Oregon reforestation workers:

“In Oregon, workers in this industry are largely Latino immigrants. These workers, like other immigrant workers of color, are socially positioned in ways that shape access to employment, education, medical care, housing, and other necessities of life. That social positioning and the relations of power that bear on it entails elevated vulnerability to economic, social, physical, and psychological harm. The institutional racism that underlies this structural vulnerability may have profound implications for health disparities.”

“Occupational segregation by race is a typical occurrence in the forestry services industry. Labor intensive, more dangerous work tends to be done by Latino workers, while more specialized, technical, higher paying tasks are performed by white workers. Work is seasonal, from February through November, with no guarantee of work or rehire each season. Workers experience high-pressure work environments where bullying by supervisors is common. Most workers receive little safety training, and health and safety are typically given inadequate attention from management. The workforce is not unionized. Collectively, such work organization factors and their attendant power relations place workers in this industry at high risk for job-related injury, illness, and fatality.”

The above passages sum up the worst aspect of the Oregon timber industry—race-based hiring that places people of color in the lowest-paying jobs under oppressive working conditions. We suggest readers read the [Timbers Fallen Three Part Investigative Series on Oregon’s Reforestation Workers](#) by Emily Green published in Portland’s **Street Roots** newspaper (Green, 2016).

The Street Roots series on worker abuse prompted a special hearing in Salem by Sen. Michael Dembrow. Senator Dembrow convened the Senate Workforce Committee and heard testimony about immigrant and guest worker exploitation.

In an article by Ms. Green reporting on the Senate hearing, she wrote:

“Through a translator, Ramon Gutierrez and Andrés Cortez relayed their experiences working for reforestation contractors. “I’m here asking for your help,” Gutierrez told the committee. “I’ve come to tell you that in this type of work, we are mistreated very much, almost like animals, and we are not animals.” Cortez said over the past 13 years he’s worked for several companies in Oregon’s forests, and he’s never seen a safety inspection take place.”

“They give us bad equipment. That’s part of the reason that we have accidents, and we are under too much pressure to do more work than we can,” Cortez said, adding that he suffered a fractured foot on the job. Gutierrez said he’s been injured, too. He broke his arm while working for an Oregon-based company on California land and had to have surgery in three places.”



“They don’t treat us like we’re people. In the whole year I worked with a company, I never had a rest break, and they never paid my overtime,” Cortez said. “They bully us and they always threaten us that they will fire us, and that’s part of the reason that many of us don’t speak out. That’s why we are here today. So you can hear us and you can help us, because we feel that you are the ones that can help us.”

“Gutierrez told the committee a fellow worker committed suicide because he couldn’t live with a work-related injury. After the hearing, he told Street Roots that man was his best friend.”

Previously, we asked the question—if timber contractors are suffering under corporate forest management, what are the conditions of labor for timber workers? Across the board, there is strong evidence that at the lowest rung in the timber hierarchy, the conditions of work are outright oppressive and racist. Any strategy to transition Oregon’s forests for a GND carbon sequestration agenda must address a fair and just outcome for the entire laboring workforce—including reforestation workers.

The Flow of Wealth

Unlike timber workers, corporate managers, technical staff, and other related professionals seldom live near forest operations. We find that lower-wage workers live in one geography and higher paid, salaried employees, live and work in cities where health care, schools, and urban amenities match their higher wage.

The GND mandate is to address the inequality between frontline communities involved in or living near forest operations and those who are privileged in the corporate hierarchy and live away from operations.

According to Congressional Budget Office (CBO) income data, in 2015 the top 10 percent of U.S. households (ranked by income before taxes and transfers) received over 80% of business income; the top 1%, over 50 percent. The top 10 percent received nearly 90 percent of capital income (capital gains, interest, rent, and dividends, less corporate taxes); the top 1 percent nearly sixty-five percent.

The above numbers are significant because the forestlands of Western Oregon are managed by corporate firms to generate profits for shareholders, investors or corporate bondholders. The overarching purpose of 80 percent of Western Oregon’s industrial forests is to provide income to the wealthiest people in the U.S. Using Oregon’s defined industrial forest base as 4.2 million acres we conclude:

Firms managing 3,780,000 acres send their profits to the top 10 percent of the wealthiest U.S. households, and of those acres, 2,730,000 generate profits for the richest 1 percent of U.S. households.

The entire world of wealth ownership is very much hidden, however it is no secret that some closely



held Oregon forestlands are owned by specific families.

A Geography of Injustice

In a remarkable series of studies sponsored by the United Way, a Northwest study was carried out to identify and understand households defined as asset limited, income constrained, and yet employed ([2020 ALICE Report, OR](#)). This income status study is ascribed the acronym ALICE. Approximately 44 percent of Oregon households have incomes defined as 'poor' or economically challenged. Economically challenged households have one or more employed members, but the family cannot make ends meet.

ALICE households earn more than the U.S. poverty level, but less than the basic cost of living for the specific county the family lives in. Combined, the number of households at or below poverty level and ALICE households equals a county's population struggling to afford basic needs.

The combined poverty-ALICE percentages tell a familiar story. Wealth and income is concentrated in metropolitan areas while those distant rural landscapes that depend on a land-based economy have a shockingly high percentage of people who are poor or not making ends meet.

In rural counties, income disparities between areas reflect communities grounded in the local economy and those areas that are home to more affluent retirees from metropolitan cities or are a destination for affluent metro-based recreationists.



Here are the numbers for Western Oregon:

All Oregon Counties			Tillamook County		
County	Total Households	%ALICE & Poverty	Cities	Total Housholds	%ALICE & Poverty
Benton	33,609	41%	Bay City	522	41%
Clackamas	150,382	30%	Bayside CDP	359	62%
Clatsop	15,549	42%	Garibaldi CDP	344	57%
Columbia	18,781	39%	Hebo CDP	168	28%
Coos	25,814	47%	Idaville CDP	137	70%
Curry	10,413	41%	Manzanita City	185	42%
Douglas	43,389	43%	Nehalem City	116	33%
Jackson	82,983	45%	Netarts CDP	479	47%
Jefferson	7,723	39%	Oceanside CDP	176	23%
Josephine	34,517	48%	Pacific City	407	58%
Lane	144,166	43%	Rockaway Beach	537	56%
Lincoln	20,458	42%	Tillamook City	1976	55%
Linn	43,911	44%	Wheeler City	163	66%
Marion	114,077	43%			
Multnomah	309,522	31%			
Polk	28,097	39%			
Tillamook	9,576	47%			
Washington	203,665	33%			
Yamhill	35,454	40%			

(Hoopes, 2018)

**census-designated place (CDP) are populated areas that generally include one officially designated but currently unincorporated community, for which the CDP is named, plus surrounding inhabited countryside of varying dimensions and, occasionally, other, smaller unincorporated communities.*



IV. A Just Transition: Land Reform

The Ownership of Land

Land ownership, the titled parcel recorded at a county courthouse, is the foundation of the timber enterprise. Ownership confers control under state law. In nations with a common law tradition, such as the U.S., land ownership is through fee title. A ‘fee simple’ purchase of a parcel transfers full ownership of the property, including the underlying title, to the purchasing party. Land and buildings are considered real property distinct from personal property. Real property is property that can’t be moved. Personal property is property that can move.

Oregon’s real and personal property is taxed by the local government based on various formulas related to its fair market value. Forestland in Oregon is legally identified for taxation purposes and its ‘fair market value’ is set in Salem, supposedly related to soil fertility. For property tax purposes in Oregon, the forest’s value is removed from the calculation of a forest parcel’s value.

The unmovable nature of land places the timber firm in a different business space from most manufacturing or service firms. If taxes, regulation or general business conditions become unfavorable, most firms can pack up and leave for greener pastures. A business enterprise based on land may leave a region, but the underlying productive capital, the land, must and will remain. This fact may account for the high degree of political effort the timber industry devotes to ensure state laws work in its favor.

Land and History

Before all private, state and federal ownership patterns were established, Western Oregon was not “owned” but settled and stewarded by numerous coastal and inland native tribes whose land-use customs were far different than current Anglo-American property law. The forced displacement of Indigenous people from Western Oregon was, as with the entire continent, an outcome of violence, theft, death and disease. Through federal laws like the Oregon Donation Land Act of 1850 (which allowed white settlers to claim land occupied by Indigenous tribes), broken treaties and violence, the U.S. government facilitated genocide and the forced removal of remaining Indigenous people to reservations. The destruction of Indigenous peoples in Western Oregon was so extreme, that most remaining tribes and bands were organized into confederated tribes. Many tribes and bands were completely decimated, and many lost all their land and were never granted treaty rights or federal recognition.



Through a series of federal measures that opened reservations to private land ownership by white settlers, any remaining reservations in Western Oregon drastically decreased in size. With the influx of white settlers, the logging industry grew. Prior to WWII, timber firms bought and logged land and then often abandoned the cutover parcels. During the 1920s and 30s, timber prices were so low that a sizable portion of abandoned land contained high volumes of saw timber. During the 1930s depression, tax-distressed timber lands reached 50% or more of the land base in most Western Oregon counties. Eventually, the parcels were foreclosed on by counties. Counties became burdened by their acquired timberlands. Some counties turned to the state for relief. The state agreed to land transfers to create state-owned forests—the Tillamook and Clatsop State Forests being two large examples.

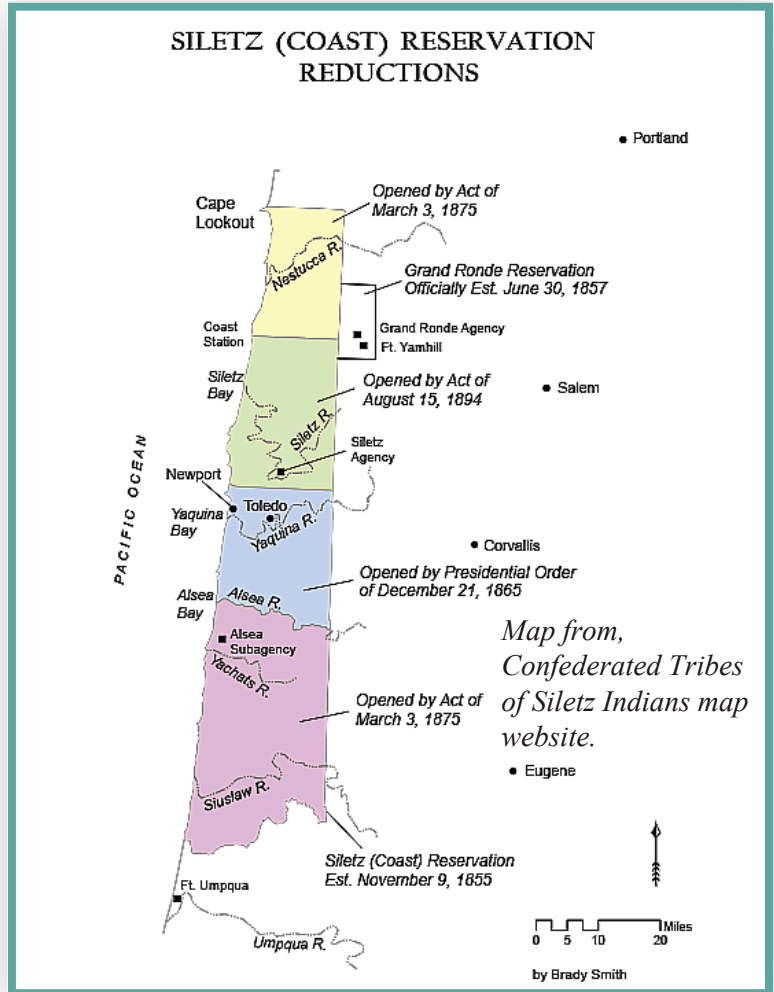
Due to a massive forest fire in the mid-19th century, a vast swath of forest land in Oregon's coastal region became the Siuslaw National Forest. In the late 19th century, millions

of acres of forest in Western Oregon were granted to railroads by the federal government as an incentive to build rail lines. Upon the rail companies' failure to fulfill their obligations, a large percentage of the land reverted to federal ownership. Today, this forest land is managed by the Bureau of Land Management and known as the Oregon and California Railroad Revested Lands or the O&C Lands.

As mentioned, there are five federally recognized tribes in Western Oregon. The tribes are:

- Confederated Tribes of Siletz Indians
- Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians
- Confederated Tribes of Grand Ronde
- Cow Creek Band of Umpqua Tribe of Indians
- Coquille Indian Tribe

Although we hope that these tribes are integrally involved, it is not the Coast Range Association's place to describe how a land ownership transition for industrial forestlands might apply to Western Oregon's tribes. Our intention with this paper is to assess the climate emergency, propose an appropriate forest solution and make the case to Congressional leaders. If the federal government supports private indus-





tribal forest land reform within a GND, the sovereign tribes and the U.S. government will negotiate tribal forest ownership expansion. The brutal, oppressive history of the federal government toward Native peoples is no secret. We expect the GND's just transition mandate to consider a generous increase in tribal forest ownership in Oregon and to intentionally collaborate with tribal governments and entities like the Intertribal Timber Council.

“There has been a great deal of misinterpretation about how and why our reservation was created. These errors began shortly after the reservation was created and they have directed our tribal history from that point on. The mis-interpretations were used to open the majority of our lands to settlement without treaty agreement or compensation. The incorrect history has also been used to force our people to cede another 191,000 acres of reservation lands (in 1892) because we supposedly had nothing more than temporary “use and occupancy rights” to the lands anyway. Eventually then, the question of our hunting, fishing and gathering rights came also to be judged by this false history.”

Visit the Confederated Tribes of Siletz Indians of Oregon's website and read up on tribal history here: <http://www.ctsi.nsn.us/chinook-indian-tribe-siletz-heritage/our-history/part-i>

Current Ownership of Western Oregon's Private Forestlands

In 2017, the Coast Range Association published the results of a mapped land ownership analysis for 18 of Western Oregon's counties. We coded all real property parcels outside of Urban Growth Boundaries to one of five categories: (1) mill-related industrial forestland, (2) financially managed forest land, (3) tribal land, (4) public lands (local, state and federal), and (5) all remaining land usable for settlement, commercial use, and agriculture.

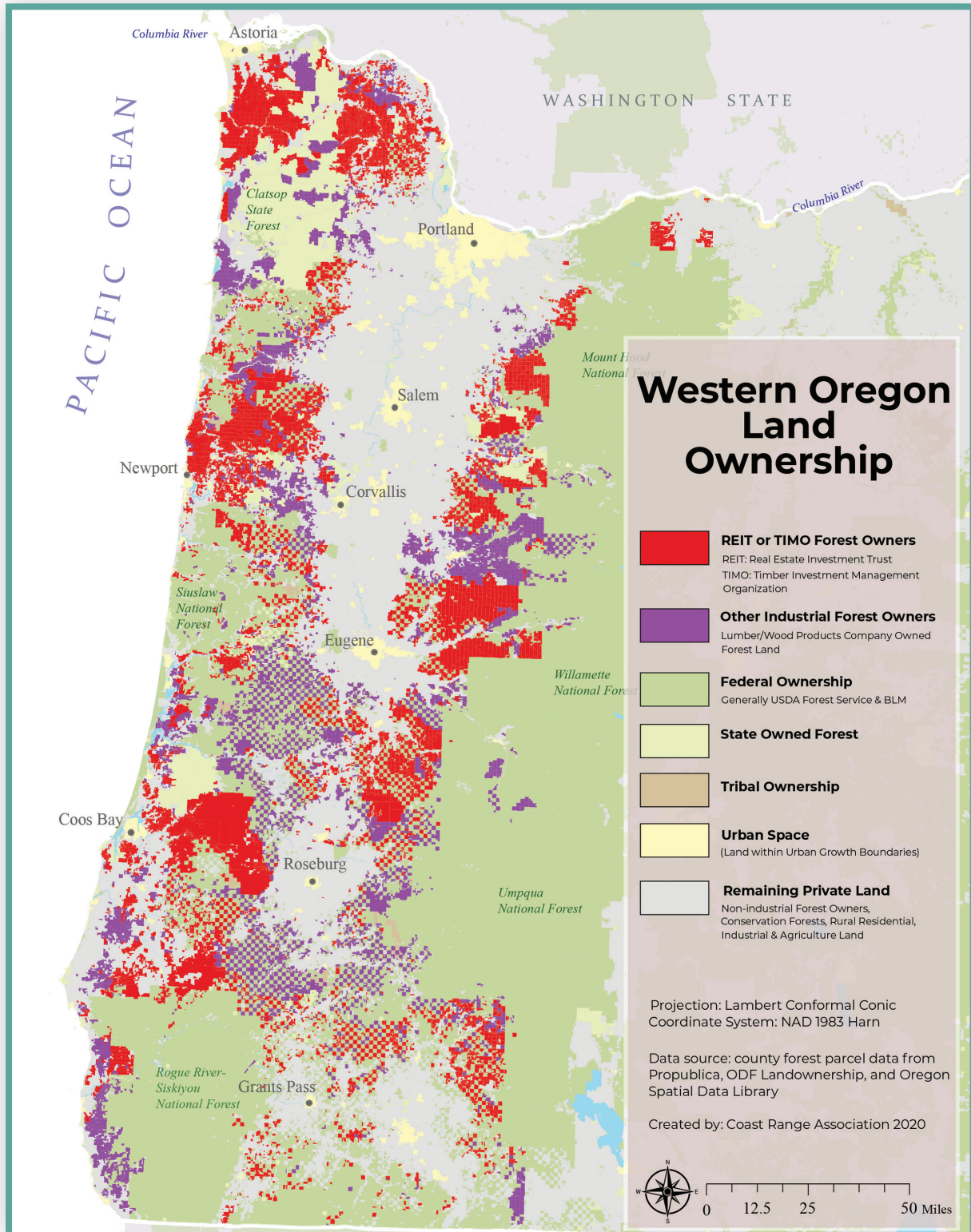
During 2020, we revisited forest ownership using newer data developed by the ProPublica/OPB/Oregonian research team that investigated Oregon's timber industry. From this new analysis, we have developed acreage totals for each major timberland owner and a new set of high-quality maps.

Our ownership maps display a dramatic picture. Land in Western Oregon is dominated by private industrial timber owners and public lands. Tribal ownership is so limited that such lands are hardly noticeable in the mapped display. The fee title of tribal parcels is owned by the federal government “in trust” for the tribes. The land base available for human settlement is mostly located in the Rogue, Umpqua and Willamette valleys and a narrow portion of the coastal region. Therefore, the functional land area in Western Oregon available for settlement and commercial enterprise other than timber growing and harvesting is comparable to a small eastern state.

The distribution of land ownership in the 18 Western Oregon counties reflects the erosion of small landowner holdings. As noted in Section II, as much as 750,000 acres of non-industrial forest ownership has been absorbed by industrial owners. We believe the loss of small owner holdings hurts the rural economy.



2020 Coast Range Association Analysis of Industrial Forest Ownership





Land Reform & Oregon

As we stated in the Introduction, states are not the proper level to lead the mobilization required for the climate emergency. The organization of the modern U.S. economy begins at the national level, which is why the Green New Deal, modeled after the 1930s federal New Deal, calls for a full national mobilization similar to what occurred during WWII. Only the federal government can mobilize, reshape and finance the productive enterprise and land for a carbon-free economy.

The amount of carbon sequestered by Oregon's forests will depend on the degree to which forest management changes. Modest reform will result in a modest amount of carbon sequestered. The world is in a climate emergency. In an emergency, maximum effort should be exerted to solve the problem. Carbon buildup in Oregon's forests must proceed at the maximum feasible pace while subject to the constraints and opportunities of a just transition.

Based on political-economic facts, we see the task at hand as preparing Oregon's political and social landscape for the changes to come. Irrespective of how the political winds blow today, we know the climate crisis will be unrelenting. First, the false narrative of climate denial is collapsing. Next, as the awareness of climate change becomes common, people will increasingly become attuned to signals that something big is happening. Fires, storm events and, most importantly, the influx of climate refugees with their own horror stories will change Oregon's political landscape.

We now explore a set of proposals for a Green New Deal in Oregon's industrial forests. The proposal package centers on land reform and social purpose forest enterprise.

Land Reform: An Essential Path

Of the four carbon-building paths identified in Section II, we believe land reform is the most viable path. Land reform to transform Oregon's industrial forestry into a **culturally compatible social purpose enterprise** appears as an obvious strategy. Nothing radical is being proposed.

A one-time process transferring corporate forest ownership to new social benefit ownership may appear daunting. But is land reform any less daunting than a struggle to enact, and then defend, state forestry and taxation reforms **at the scale of climate emergency?** It is arguable that such regulatory or taxation reforms are even possible.

It must be remembered that Oregon's industrial forestlands have been bought and sold continuously over the past 40 years. Large holdings up and down the coast have been bought and sold two, three, four times in the past decades. We are proposing one more transition in ownership.



The choice is not between doable, state-enacted forest regulation reform and land reform. The choice before us is to fully meet the climate emergency through a combination of the four carbon-building paths, land reform being the most essential to a just transition, or not meeting the scale of the climate emergency.

Our embrace of land reform and new social purpose forest enterprise results from a realistic appraisal of financial forest ownership. As long as financial-based-enterprise owns Oregon's industrial forestland, we can assume:

- 1) Financial cut cycles will prevail, resulting in lost saw timber production of 20 to 50 percent.
- 2) Maximum effort to generate gross revenues will always create downward pressure on wages and motivate management to replace labor with machines.

How do we justly transition millions of acres of industrial forestland in Western Oregon? In Section I, we established the value of industrial forests in sequestering carbon. In Section III, we explored the exploitive facts regarding corporate enterprise based on profit. In the sections to follow, we address the key elements of a forest ownership transition and the establishment of social benefit enterprise.

The buyout of timber companies in Western Oregon must occur on at least 75 percent of the current industrial forest estate. This means that for Western Oregon's 4.4 million acres of industrial forest ownership, three million acres of the highest quality forestland must be acquired. Why 75 percent and not 100 percent? The answer is twofold:

- 1) Industrial holdings in drier, less productive areas will not sequester enough carbon to warrant purchase, and
- 2) industrial owners managing timber appropriately should be allowed to continue owning their forests.

Private property under the U.S. constitution cannot be confiscated, the land must be bought at fair market value. We cannot speculate on the cost of an industrial forest buyout. For property tax purposes, the Oregon Department of Revenue determines a yearly fair market value of all forestland in Oregon. What relevance those prices have to a large-scale forest ownership transition is debatable.

Like any transaction between a willing seller and a willing buyer, considerations outside of a technical appraisal always influence the transaction. There are likely a number of considerations the timber industry and Congress might explore to motivate industry divestment. One consideration we'll mention is industrial hemp.

The GND is, at heart, a national industrial policy reorganizing U.S. industry to a carbon-free energy basis. Congress would be wise to address a national fiber agenda for home and commercial construction that complements wood fiber. The obvious fiber is industrial hemp. Generous considerations could be made to transition Weyerhaeuser and Roseburg Forest Products toward hemp-based building prod-



ucts. Indeed, the transition of Oregon's forestland ownership likely requires new productive capacity in hemp-based building products.

There is a role for the state of Oregon in land reform and building social purpose forest enterprise. A robust set of regulatory reforms that eliminate economic externalities and industry tax avoidance will help reset forestland market values closer to a fair valuation. Simultaneously, the state's capacity for business support could pivot toward support for social purpose forest ownership. The funding for state business support activities would flow from federal appropriations, not new state taxes.

Dramatic disruptions to society's economic fabric are never lightly undertaken. For better or worse, rapid social transformation only occurs during times of crisis and massive structural stress. That crisis is here, the climate metrics are not improving and the carbon budget will soon be used up. While the future cannot be known, a reasonable assessment suggests a GND mobilization is a demand that must be prepared for and advanced.



V. Building a GND Forest Economy

To date, we have encountered a number of first-thought reactions to our assertion that Wall Street's domination of industrial forests must end. Those reactions often make a binary jump from business-as-usual ownership to federal nationalization of private forestland. We are not advocating for nationalization. Oregon has enough federal forests—in fact, 50 percent of all forests in Western Oregon are owned by the federal government. The problem with federal ownership is that human settlement is prohibited, economic enterprise is constrained, and future management is subject to the whim of powerful contending interests.

Our proposal is not a threat to small forest owner holdings. In fact, land reform is the best option to reverse the erosion of small forest holdings. As we stated in Section III, between 1961 and 1994, 622,705 acres of small forestland ownership has been lost to large industrial owners. Since then, another 125,000 acres has likely been swallowed by big corporate owners. A close analysis of prior ownership patterns and the land's best use for carbon sequestration and productivity will likely identify many industrial acres suitable for re-settlement through small-scale farming and forestry.

The question before us is: Who will own transitioned land and what enterprise models will govern forest management? Fortunately, we do not need to look far because social purpose enterprise exists across Oregon's rural landscape as an outcome of the 1930s New Deal.

Not only are social purpose models of enterprise all around us, but alternative forest management strategies exist to support such enterprise. Foresters, not bankers, will once again become essential to the management of forests.

Social Purpose Enterprise

The organizational structure of new forest enterprise will range from member-based cooperatives to municipal governments. Special consideration and process will be employed for tribal landholding expansion. Specific language in the organizational charter of new forest enterprises will emphasize service and benefit, to either a geographic area or an organization's members. In both cases, special provisions for employee co-management will be part of an enterprise's charter. New working forest companies may form managing partnerships for very large forest holdings.

All land conveyed to a new forest enterprise will come with a *working forest conservation easement* held by the federal government or other appropriate body. The easement will be required for land purchase funding grants. The easement ensures and specifies carbon sequestration targets and prevents forest conversion to other uses. Currently, a working forest conservation easement is required in the California carbon credit regime to ensure a true increase in forest carbon over a current management



baseline. The increase in forest carbon over a current baseline is called **additionality**. Just as current corporate owners are constrained by financial mandates requiring excessive harvest, these new carbon purpose working forest easements will constrain harvest and ensure the social mission of the owning enterprise.

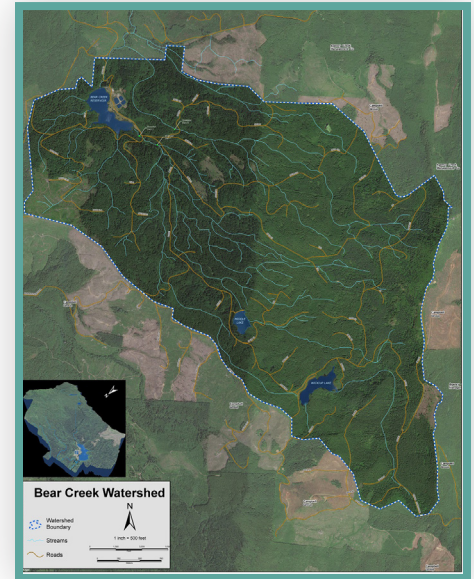
In all cases, the basic enterprise model will be carbon additionality located within a range of forest management strategies. Different forest management strategies will increase or decrease the rate of carbon buildup and the eventual long-term goal for sequestered carbon. As such, we envision carbon additionality intensity matched to a mix of social benefit forest owning forms.

Form of Ownership & Enterprise	Easement Mandate for Carbon-Building Intensity		
	Low Range	Mid-Range	High Range
New Family Ownership Holdings	X	X	
Member Cooperative: Nonprofit Corporation	X	X	
Worker Cooperative: Nonprofit Corporation		X	
Tribal Ownership: Sovereign Government	X	X	X
Municipal Ownership: Local Government		X	X
Conservation Trust: Nonprofit Corporation			X
Mixed Partnership N/A		X	
Ag-Forest Cooperatives: Nonprofit Corporation	X	X	

Note: Agriculture-Forest Cooperatives are a special enterprise for mixed forest and agricultural lands.



The City of Astoria's Bear Creek watershed – a social benefit forest providing timber revenues, quality drinking water and increased carbon storage.



Business Model

The ownership and enterprise example we draw inspiration from is the New Deal era rural electric co-ops. Electric cooperatives are incorporated under state statutes as nonprofit corporations and granted federal tax-exempt status under IRC section 501(c)(12), provided that 85 percent or more of their annual income comes from members. Federal tax-exempt status will apply to new forest owning companies with a carbon sequestration easement.

The University Of Wisconsin Center for Cooperatives explains the electric co-op in the following passages:

“Each rural electric cooperative (REC) customer is a member-owner, and membership is a requirement of all customers. Since most RECs operate as monopolies, consumers must become cooperative members if they wish to purchase electricity. Members elect a board of directors from among the membership on a one-member/one-vote basis.”

“As with other cooperatives, RECs strive to operate at cost. However, like other businesses, RECs must accumulate equity capital to support their operations and new initiatives. Because the members are owners of the cooperative, when the REC has net earnings (i.e., revenues exceed expenses), or margins, those margins are returned to member-owners based on patronage.”

“Among the REC cooperatives, the amount of margin allocated to each member is called a “capital credit.” Capital credits are allocated to members’ accounts, but the underlying value is retained by the cooperative for a period of time. Most RECs have capital credit retirement programs, by which the cooperative gradually returns the value of past allocated capital credits



to members. In most cases, members receive the value of their capital credits as a deduction on their electric bill.” (University of Wisconsin Center for Cooperatives)

Oregon Electric Power Service Providers

Customers by Utility Type (2012)	Cooperatives	Municipalities	Peoples Utility Districts	Investor Owned Utilities	Total
Residential	172,326	159,925	99,728	1,210,579	1,642,557
Commercial & Industrial	20,924	20,102	12,844	194,618	248,492
Public Street & Highway Lighting	297	124	1,483	767	2,671
Other Public Authorities		904			
Interdepartmental		97			
Irrigation	7,536	462	673		8,671
Sales to Retail Energy Customers		1,732			1,732
Total Customers	201,083	183,350	114,728	1,405,964	1,905,125

(Ackerman, 2014)

There are 1.9 million electric utility customers in Oregon, 1.64 million of which are residential accounts. Investor-owned utilities charge customers 20 to 40 percent more per kilowatt-hour (kWh) than cooperatives, municipalities or people’s utility districts (Ackerman, 2014).

No one has ever asserted that public benefit utilities provide poorer service or underperform compared to investor-owned utilities. Generally, Oregon’s rural telephone cooperatives provide better internet service to rural customers than investor-owned companies. Currently, in California, Pacific Gas & Electric’s dismal performance with capital investment and its recent bankruptcy have led to a call for conversion to a public benefit enterprise. The excellent performance of public benefit utilities is likely one reason the state of Nebraska has electric service entirely from cooperative and municipal utilities.



*Becoming a cooperative member:
April 1945, Tyndall, SD. The Rural
Electric Association had community
meetings to recruit members for the
new cooperative in the area.*

As we see from GND passages below, it is evident that land reform under new local, social benefit enterprise must conform to and be a key building block of the Green New Deal's just transition. HR-109, the Green New Deal, states in Section 4:

“to achieve the Green New Deal goals and mobilization, a Green New Deal will require the following goals and projects—

“(A) providing and leveraging, in a way that ensures that the public receives appropriate ownership stakes and returns on investment, adequate capital (including through community grants, public banks, and other public financing), technical expertise, supporting policies, and other forms of assistance to communities, organizations, Federal, State, and local government agencies, and businesses working on the Green New Deal mobilization;”

And HR-109 goes on to state in Section 4, subsection (E):

“directing investments to spur economic development, deepen and diversify industry and business in local and regional economies, and build wealth and community ownership, while prioritizing high-quality job creation and economic, social, and environmental benefits in frontline and vulnerable communities, and deindustrialized communities, that may otherwise struggle with the transition away from greenhouse gas intensive industries;”

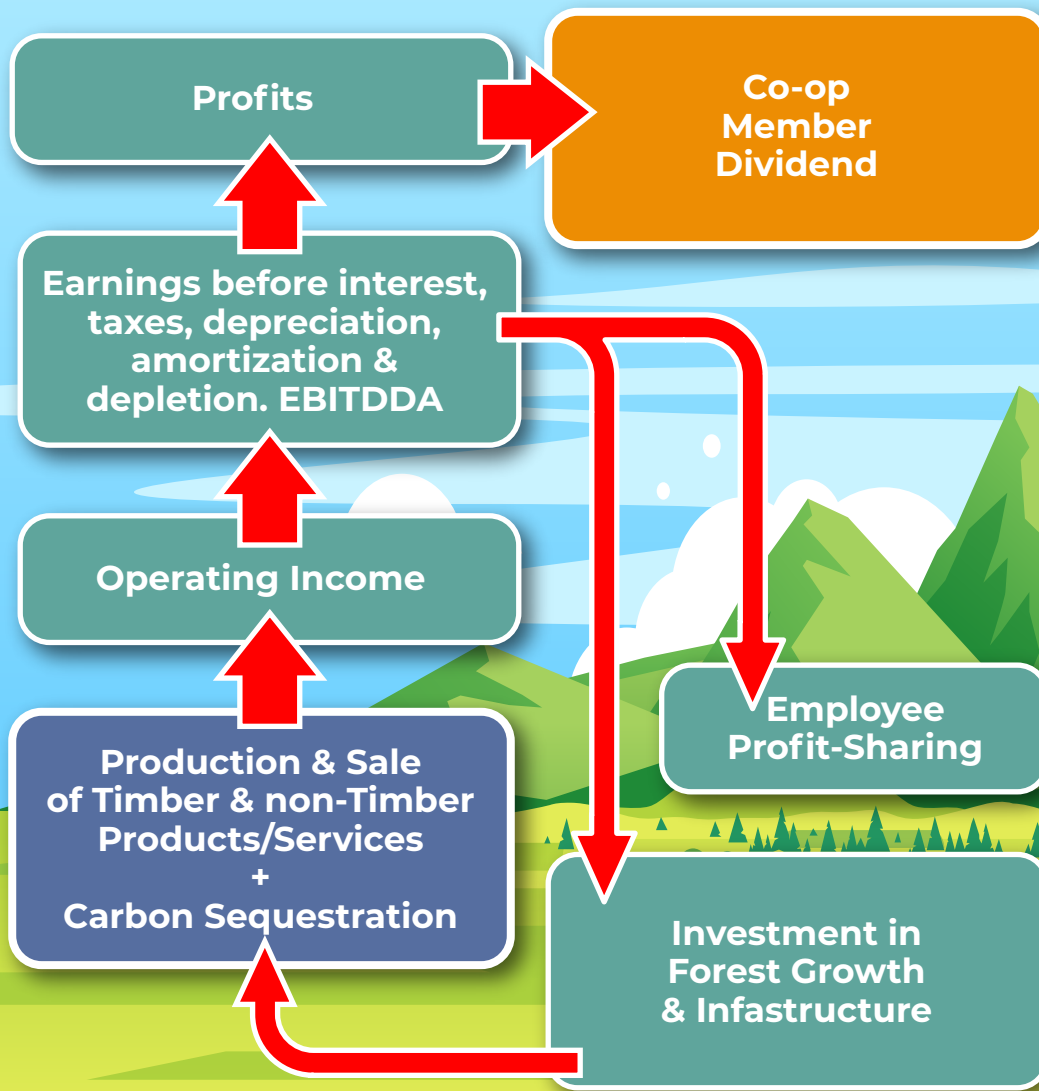
The cooperative enterprise company, grounded in nonprofit ownership, is just one model for a GND financed forest firm. We envision GND financing grants will be available to local municipalities for drinking water catchment protection and for the formation of partnership forests between social benefit



entities for large-scale land acquisition and management. Land purchase grants will also be available to tribal governments and their economic development corporations.

What we are proposing for Western Oregon's industrial forests is not radical. The social benefit enterprise models suggested are tried and true business models, often more familiar to rural people than city dwellers. The need to convert industrial corporate lands to new public benefit forest ownership is a logical response to the climate emergency and multiple concurrent social issues such as income inequality, racial discrimination and the erosion of labor standards.

Social Benefit Working Forest





Local Democratic Control of Enterprise & Worker Co-management

“Working forest” conservation easements allow private forests to continue being a working forest for timber and other forest products under a new management strategy to increase sequestered forest carbon. Some landscape areas, such as municipal water supply catchments, may harvest little if any timber, but the great majority of acreage converted to public benefit forestry will produce a range of timber volumes depending on the goals and metrics of each easement.

Forest workers must have a direct voice in the management of such an enterprise. We expect the federal government and the state of Oregon to enact new labor laws ending exploitive labor practices across all forest managing firms. The mandate for a job guarantee in the Green New Deal has significant implications for stabilizing the forest workforce and allowing for previously considered uneconomic management practices. Oppressive employment conditions for reforestation workers must end. We support unionization and new forms of democratic workplace participation similar to the European Works Council model of co-management.

The mix of specific management practices employed for each forest enterprise will depend on carbon easement provisions and democratic control. Local authority and the voices of co-managing workers, in consultation with management, will set enterprise-wide goals and determine the specific plan of forest management.



VI. Conclusion

The contribution industrial forests must play in the climate crisis lies in removing CO₂ from the atmosphere. CO₂ is removed from the air when forests grow larger. The reason Western Oregon's industrial forests offer a unique opportunity to sequester and store CO₂ is simple:

1. Oregon's 4.4 million acres of industrial forests exist as tree plantations cut on short intervals. Weyerhaeuser claims to cut on a 50-year cycle. So, its average tree age is 25 years. While the rate of carbon accumulation in young stands is high, the volume of carbon stored is low due to trees being young and therefore small.
2. In the pre-industrial past, stand ages were likely over 200 years. Old stands sequestered massive amounts of forest carbon due to the large tree size that comes with age.
3. Additional carbon storage problems associated with industrial forestry include: Foregone sequestration from large areas of recently clearcut land, the decay and combustion of logging residuals and emissions associated with forest fertilizers.

For reasons explained in Section III, forests owned by financial capital cannot exist as large, high carbon forests. Denying this fact of ownership is tantamount to denying climate science. We are not calling for the end of timber production—just the opposite. By cutting less now to build forest carbon volume, the lost production due to short rotation financial management will be recovered. To provide for rural communities and meet the climate emergency, there is no place for the greed and short-sightedness of Wall Street investors in what could be the greatest working carbon forests in the world.

Based on twenty-five years of industrial forest reform work and the mandate of the Green New Deal (HR-109), we conclude that the only path forward is a buyout of Wall Street controlled forestlands through Carbon Storage Sequestration Grants and the transfer of ownership to:

1. **Local, nonprofit, social benefit enterprises** similar to rural electric or telephone co-ops.
2. Cities, towns and water districts needing safe, clean drinking water from intact forests.
3. Tribal land restoration addressing past, historic injustices.
4. Conservancy organizations for ecologically special forested areas.

New social benefit forest ownership, ensured by working forest conservation easements, is a comprehensive approach to increasing carbon storage while providing increased prosperity to rural communities. Rather than nationalization, we call for the return of forest ownership to local, community-based organizations.

The GND's concern with historic injustices and marginalized communities require us to highlight the huge social and economic impact Wall Street forestry has on the people and communities of Western Oregon. Our report shows the extent to which smaller forest holdings have been acquired by large



industrial forest owners. The fact that 60% of timber enterprise profits and interest payments flow to the wealthiest 1% of U.S. households explains much about rural poverty and ALICE income households.

Any strategy to transition Oregon's forests within a GND agenda must address a fair and just outcome for the entire forest workforce—with specific attention paid to improving the lives and working conditions of the predominantly immigrant reforestation workers. Parallel to timber industry worker concerns is the morally compelling need to address past injustices over the loss of tribal lands.

What we are proposing for Western Oregon's industrial forests is not radical. Local, social benefit enterprise is tried and true successful business model. Such enterprises currently operate in many communities ranging from municipal water services to the many co-ops that deliver rural electricity and telecommunications. With land reform and local forest ownership, foresters, not bankers, will once again become essential to the management of working forests.

Typically, problems emerging through processes that grow exponentially arrive in social consciousness as a surprise. Yet, for the past one hundred years, simple grade school math predicted the current build-up in CO₂. Yet here we are with policy makers and governmental leaders searching for forest related climate solutions. Because the hour is late, solutions to the climate emergency are bound to be disruptive and rapid. Decades of inaction have brought us to this point.

Dramatic disruptions to society's economic fabric are never lightly undertaken. Rapid social transformation only occurs during times of crisis and massive structural stress. The crisis is here. The climate metrics are not improving, and the carbon budget will soon be used up. While the future cannot be known, a reasonable assessment suggests a GND mobilization is the minimum strategy required.

Opportunities to rebuild the U.S. economy and rebalance productive capital for social benefit are all around us. A GND national mobilization is an opportunity for Oregon to join the world in meeting the climate emergency at the scale the crisis requires. Anything less threatens the wellbeing of future generations.

Transitioning Oregon's industrial forests into a people centered, carbon building future will improve people's lives and ensure a prosperous future. We offer this analysis and proposal in the spirit of solidarity with future generations and those who suffer today.



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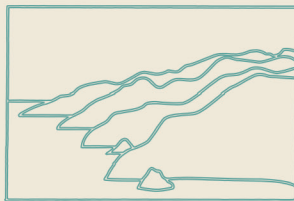
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