THE FORESTS DIALOGUE

Initiative on Bioenergy from Forests

Field Dialogue in Oregon and Washinton, USA

Concept Note

About the Bioenergy from Forests Initiative

Bioenergy from forests (BEF) is the energy generated from the combustion of wood, wood wastes, or biofuels derived from wood. In the past two decades, there has been renewed attention around wood based energy, an important energy source for millenia, due to efforts to sustainably scale up its applications to meet energy resilience goals and replace green-house gas (GHG) intensive fossil fuel energy.

Debates about BEF have played out in global climate forums and policy discussions both at the national levels and in industry and NGO forums. The IPCC placed bioenergy with carbon capture and storage (BECCS) within all pathways to limit global warming to 1.5 degrees Celsius. While many see a promising role for BEF to reduce GHG emissions, especially in the future when combined with BECCS technology, others question narratives that BEF is a “carbon neutral” energy source when the full life cycle of emissions and time required for forests to regrow is taken into consideration. Discussions on the future of BEF are active, with arguments both for and against BEF expansion heard at the COP16 2024 Convention on Biological Diversity. These debates are further contextualized by BEF’s place among a suite of products in forest bioeconomies and biomass carbon removal and storage (BiCRS) approaches, which include biochar and biogas.

In the United States, the Southeast has been a focal point of the national debate around BEF. There are at least 20 wood pellet mills from Texas to Virginia, and over a dozen more in planning stages. This scaling up of BEF has been driven by European demand for biomass, and facilitated through domestic subsidies. The European Union’s (EU) Renewable Energy Directive has galvanized use of BEF, with biomass energy now constituting a significant portion of the EU’s renewable energy portfolio. At the same time, the growth of the BEF industry in the U.S. has raised concerns from many environmental organizations about the health and community impacts of the industry. There are also significant shifts in the biomass industry, including the world’s largest producer of wood pellets declaring bankruptcy in March of 2024.

Debates are also taking place in the Western United States, where many see BEF as a critical wildfire mitigation strategy. Global energy companies have at least four major biomass pellet plants planned along the West Coast, with two in Washington and two in California. Additionally, there are numerous examples of smaller scale BEF production in communities around the west.

While some environmental organizations have signed onto statements describing a role for BEF in the Sierra Nevada mountains under certain conditions, other environmental organizations see no role for BEF in a just energy transition, citing negative community impacts experienced in the U.S. Southeast.

The outlined goals of The Forests Dialogue's BEF Initiative are the following:

- **Gaining a deeper understanding of stakeholder views:** The initiative seeks to facilitate open and deliberate discussions to gain a comprehensive understanding of the diverse perspectives, interests, and concerns held by stakeholders in the BEF landscape.
- **Creating larger learnings for informed policy:** The initiative aims to distill insights from regional dialogues, providing valuable recommendations for sustainable BEF that can shape local practices and inform policy decisions within the United States.
- **Generating global-scale insights:** The initiative aims to generate globally relevant insights by examining how international trends and demands intersect with the bioenergy landscape.
- **Catalyzing stakeholder-led action and collaboration:** The initiative aims to create opportunities for regional dialogue which will be conducted to identify and learn from specific issues and opportunities in various geographic locations and catalyze action.

In February of 2024, The Forests Dialogue (TFD) convened a Scoping Dialogue in collaboration with The Forest School at Yale School of the Environment. This was the first dialogue of the initiative, and brought together 28 individuals representing Private Industry, Environmental Non-Governmental Organizations, Indigenous Peoples, Youth, and Academia. At the Scoping Dialogue, participants identified an urgent need for continued dialogues in specific regions, starting with a field dialogue in the Western United States.

Bioenergy from Forests in the Western United States

In the Western US, there is a growing focus on utilizing bioenergy from forests as a key market to address forest health and enhance fire resilience by reducing fuel levels caused by diebacks from insects, disease or storms. While actions, mechanisms, and investments to scale up BEF for climate change mitigation are moving forward at a rapid rate, confusion and disagreement remains over when, where, and how BEF can deliver climate benefits as well as the potential negative impacts to climate or communities that this rapid buildup could entail. The context of wildfire, large tracts of forest under Indigenous stewardship, and nuanced policy environment all underscore the acute need for dialogue in the Western United States.

Wildfire

Forest lands in the Western US are the locus of acute concerns about wildfire management. After decades of suppression efforts, encroachment of dwellings into the wildland-urban interface, and forest health impacts fueled by climate change, the forests of the West have

become more prone to wildfires that are more severe and more difficult to control. Federal lands in the West are also places where a history of fire suppression (among other factors) has led to an accumulation of biomass, which creates a wildfire hazard. Management could play a role in removing excess dead biomass and thinning the remaining live trees, making them less vulnerable to catastrophic fire. Some see strong potential for this biomass to be utilized as bioenergy feedstock, in addition to other climate mitigation strategies like non-energy BiCRS. In this context, many see BEF as one of a suite of technologies and uses for biomass that could turn a growing source of concern into a potentially self-financing source of relief. The connection between the demand for biomass feedstock and the potential for supply from Western forests is a possible win-win-win for better forest health, better community opportunities, and lower wildfire risk.

Several obstacles must be overcome for BEF to have a positive effect on wildfire resilience. For example, participants in the Scoping Dialogue felt the federal bureaucratic processes could stand in the way of this opportunity, unless better ways can be found to work through them. In addition, participants expressed concern about a perceived lack of urgency at the federal level. Another obstacle is the means and cost of transporting biomass out of forests and into processing facilities, along with the GHG emissions associated with this removal and transportation process. Moreover, there remain outstanding questions from environmental organizations and community groups about potential impacts of a large BEF industry in the west.

Indigenous Lands

Indigenous lands in the US also present an important opportunity with layered challenges. Indigenous ways of knowing tend to be more holistic than western science, recognizing connections across systems like forest management, wildlife management, sustainable food systems, and tribal health. Tribes often seek to draw upon their traditional practices, such as prescribed burns, to inform their forest management practices. But these traditions have not been widely accepted, and their GHG implications have not been well-studied.

These holistic and interconnected approaches do not align well with the reductionist, evidence-based, and data-driven approaches that often underpin policy-making. Indigenous representatives at the Scoping Dialogue asked for greater recognition of the validity of their approaches to land management, with more opportunities to measure their outcomes against conventional forest practices, in order to convince policymakers to implement these practices in a broader way.

Biomass feedstock harvest from tribal lands could support desperately needed jobs for Indigenous communities, but the industry may skip over these lands in favor of more straightforward contracts with less restrictive landowners. Even biomass harvests on adjacent lands could benefit tribes by reducing the risk of wildfires crossing into tribal lands, but these adjacent lands are often federally owned, with all of its associated challenges. These factors leave tribes with a feeling of being left behind – left behind from opportunities, skipped over by

markets, underinvested in terms of education, and unassisted with the means to address the risks rising around them.

Policy Landscape

With new appointments to head the EPA and Department of Energy (DOE), the federal policy framework of the coming years is uncertain, as is the fate for the Forest Biomass Emissions Act of 2024. The Inflation Reduction Act introduced Clean Energy Production and Investment Credits, but there are some who advocate against this tax credit applying to BEF projects. In April of 2024, U.S. senators introduced the Forest Biomass Emissions Act of 2024, which would require the Environmental Protection Agency (EPA) to conduct lifecycle assessments associated with forest biomass combustion and study the impacts on communities. This all leaves BEF at an inflection point, emphasizing the critical need for dialogue.

State level BEF policy in California, Oregon, and Washington reflects ongoing efforts to balance forest management, renewable energy goals, and conservation. State level policies that influence BEF range from renewable energy targets to incentives for forest-based carbon sequestration. While many state governments see potential in the utilization of BEF, particularly in the context of wildfire mitigation, there is increasing public scrutiny and debate around state level policy.

California continues aggressive energy transition policy through its Renewables Portfolio Standards (RPS), which sets continuously escalating renewable energy procurement standards for the state's load-serving entities. The Bioenergy Renewable Auction Mechanism (BioRAM) uses the RPS standardized renewable auction mechanism (RAM) with a BioRAM rider to streamline procurement, requiring that a certain portion of bioenergy be sourced from High Hazard Zone (HHZ) fire fuels. Oregon's Renewable Portfolio Standard includes BEF, and Oregon is the site of the Forest Service's Wood-to-Energy cluster pilots, focusing on forest restoration in Eastern Oregon. With Oregon's long established timber industry, there is also a significant source of potential low-grade woody biomass for BEF. In Washington, the Clean Energy Transformation Act (CETA) recognizes BEF as a potential transitional renewable energy source, and provides a framework for integrating BEF into a clean energy portfolio for the state.

Some environmental organizations are actively opposing policies that encourage BEF expansion in the Western U.S., focusing on stopping the development of large biomass plants in the region and advocating against subsidies for the industry. In the past, these subsidies have been critical for the biomass industry, with biomass power generation in California peaking between 1990 and 1993, and falling after price support policies expired. This leaves the policy future at the state level uncertain, as it is at the federal level, and underscores the urgent need for increased understanding and dialogue across stakeholders in the region.

Questions and Themes for Dialogue

- **Climate Change** : Under what conditions do forest management practices and using forest biomass for energy enhance greenhouse gas benefits?
- **Forest Health:** How can biomass energy contribute to better forest health, and when does it undermine? Is there a scale at which biomass feedstock production exceeds the sustainable limits of forests?
- **Forest Bioeconomy:** How to stimulate a forest bioeconomy where bioenergy is one product? Looking ahead to emerging markets for BEF: biofuels, bio oil, BECCS; Diversifying forest product markets.
- **Environmental and Social Outcomes:** Under what conditions can biomass supply operations be better for environmental and social outcomes than other competing demands for land? Under what conditions might communities face tradeoffs related to BEF between health, jobs, and wellbeing?

Fracture Lines:

Social License: There are challenges in establishing widely accepted and credible evidence that demonstrates genuine climate benefits from BEF, and also meaningfully addresses potential social and environmental impacts. Social License is critical to maintain public trust and acceptance of BEF.

Scientific evidence: There is disagreement around how life cycle assessments and environmental impacts are conducted in relation to BEF, with different methodologies arriving at contrasting understandings of BEF as a climate solution.

Incentive structures: There are differing views on how policy mechanisms can most effectively support renewable energy transitions while avoiding unintended consequences and balancing environmental, economic, and social considerations.

Sufficient workforce: Critical questions center on developing comprehensive programs and pathways that can ensure the BEF industry has a robust and well-trained workforce, and that such a workforce will have meaningful and durable long-term careers. These questions are contextualized by a shrinking labor pool in the wider forestry sector.

Engagement of impacted communities: There is a strong need for, and skepticism of, inclusive consultation processes that center the perspectives of communities potentially impacted by BEF developments.

Defining sustainable forestry: There is ongoing dialogue that seeks to establish mutually understood definitions of sustainable forestry that would balance ecological integrity, adaptive management, economic viability, and social responsibility.

The Dialogue

The multi-stakeholder field dialogue will convene approximately 40 locally based and national experts, stakeholders, and rights holders in June 2025 in Oregon and Washington. The dialogue will include both plenary and small working-group formats as well as field visits to hear directly from local participants about economic opportunities and social and environmental challenges on the ground. The dialogue aims to visit sites that provide opportunities for deep discussion of: forest management, wildfire mitigation, bioenergy generation at different scales, bioenergy contextualized within broader forest bioeconomies, and global demand for bioenergy from forests.

This dialogue will build on and learn from existing multi-stakeholder collaborations on bioenergy, and the Scoping Dialogue. Outputs of the dialogue include a Background Paper synthesizing key science and knowledge related to Bioenergy from Forests in the Western United States, a Co-Chairs' Summary highlighting key areas of agreement and disagreement emerging from dialogue; and a co-developed action plan of identified strategies and recommended next steps.