



# THE FORESTS DIALOGUE

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## Partners



## Scoping Dialogue on Sustainable Woody Biomass for Energy

June 21 – 22, 2016 | Montpellier, France

### Background

Using wood as fuel for heating and cooking is one of humankind's oldest practices. An estimated one-half of the world's population relies on wood-based biomass in the form of fuelwood and charcoal to meet their daily energy needs. Wood fuel production accounts for more than half of the annual global forest harvest. While traditional woody biomass use continues to be the dominant form of biomass energy, woody biomass is increasingly used on an industrial scale for heat and power, especially as developed countries seek to increase renewable energy's share of the energy mix.

### *Two Contexts: Traditional and Industrial*

There are two major contexts in which woody biomass is used for energy today: traditional heating and cooking, and industrial heating and power. According to the FAO (2010) Wood fuel production accounts for 57 % (1.8 billion m<sup>3</sup>) of annual global forest harvest compared to Industrial roundwood at 43 % (1.6 billion m<sup>3</sup>).

Traditional use of woody biomass for heating and cooking in the form of fuel wood and charcoal is vast and varied. In addition to household use, businesses – ranging from bakeries, restaurants, breweries, and brick factories, and iron and aluminium forges – depend on fuelwood or charcoal for their daily operations. In many parts of the developing world, traditional woody biomass use has peaked or is in decline, while other regions, such as sub-Saharan Africa, are projected to experience huge growth in biomass use over the next 15 years. In some localities, biomass is not driving deforestation, while in others, such as the Congo Basin, it is a primary source of forest loss. Globally, traditional biomass is associated with hazardous indoor air pollution and health effects. In many contexts, there is a gendered component as well, with women spending a disproportionate amount of their time collecting fuel wood. In other contexts, this largely informal industry employs vast amounts of labour in supply chains that service urban areas.

Meanwhile, industrial scale use of woody biomass to generate energy has become a well-established part of the production of pulp and paper, sawn timber and panels. In some parts of Europe, significant district home heating networks, with woody biomass as the primary energy source, are in place. Furthermore, industrial biomass is increasingly used to directly generate electricity, especially in Europe, which is projected to source over 42 % of its overall renewable energy from biomass by 2020. Among these three markets, residential heating, district heating, and industrial, industrial power generation is the only market increasingly sourcing pellets abroad.

By 2020, global demand for internationally traded wood pellets to generate power is expected to reach 50 to 80 million metric tons by 2020, according to USDA estimates, which would quadruple 2013 levels. This demand will be primarily driven by the European market and increasingly by East Asia (South Korea and Japan). US energy and climate policy developments could also have a significant impact on the demand for woody biomass over this period. As global demand for biomass grows, there is concern by some stakeholders about the trans-boundary environmental impacts if this biomass is not sourced sustainably.

### *Climate Priorities Driving Demand*

Biomass has received more attention from policymakers – in both traditional and industrial contexts – due to its perceived climate benefits. Within the UNFCCC, biomass is clearly recognized as a significant renewable energy option alongside hydro, solar and wind power. In response to the European Union’s Renewable Energy Directive target of 20% renewable energy consumption by 2020, some European nations are incentivizing biomass within their own countries, which is rapidly expanding investments, production and international trade of wood pellets, as well as increased harvest/mobilisation from local sources. Indeed, countries like the UK and Japan have specifically targeted biomass wood pellets with economic and policy incentives. At the same time, the decline of lumber and pulp demand in some regions like the US Southeast has further pushed timber companies to switch to pellets. Meanwhile development policy-makers see clean cooking solutions as a path to avoid switching to fossil fuels while simultaneously improving indoor air quality and public health.

However, the issue of the actual carbon benefits, or debt, of large scale switching from fossil to biomass fuel sources remains controversial, especially with civil society stakeholders relating to public policy supported biomass energy projects in Europe and the associated development of wood pellet supply chains globally. Indeed, that many organizations have different stances regarding the carbon neutrality of biomass is a consequence of the different approaches that can be taken with respect to the carbon accounting.

Biomass’s carbon neutrality is determined by a life cycle analysis (LCA). The outcome of that analysis depends on the time frame examined in the carbon cycle, in addition to the method of harvest, use, fuel it replaces, and to what extent market effects are taken into account, among other factors. For example, if woody biomass use increases, does this take away from timber supply for other timber products? If so, woody biomass’ carbon footprint would increase because it is taking away from carbon that would otherwise be sequestered in the form of a different timber product (known as a form of “leakage”). Organizations thus have different stances on biomass’ carbon neutrality, and working toward agreement on a standard carbon neutrality framework for biomass will be one of the dialogue’s objectives. The IEA projects that to produce 6.4% of global electricity from burning wood biomass by 2035, the global commercial tree harvest would have to increase by 137%.

### *Towards Sustainable Production & Consumption*

Ultimately, while the contexts in which biomass is used for energy are varied, moving towards or confirming sustainable production and consumption is a common thread. The scale of European developments and the speed of supply chain expansion, especially in the US southeast, has heightened public policy, supply chain and civil society stakeholder interest and focus on the sustainability challenges and opportunities of woody biomass for energy. Likewise, the Sustainable Development Goals have highlighted both the challenges and opportunities created by woody biomass for development practitioners and communities. Key questions include: Can the sustainable management of all forests support climate change, biodiversity and development objectives while meeting increasing demand

economically? Ultimately forest resource is finite – so the potential for forest biomass to contribute to world energy need must be constrained: how is this limit managed when supply can be mobilized across jurisdictions? What are the perspectives of forest owners – both customary and titled? How does competitive tension with different types of bioenergy play out in the landscape – does it create competing land use for biomass? How can supply chains in both contexts – traditional household use and industrial scale use – be improved? To what extent does woody biomass production threaten to overwhelm current sustainable forest management capacity, undermine food security or contribute to land use change and loss of biodiversity? What are societal expectations for this increase use of woody biomass at scale including public policy incentives to support accelerated development? What types of certification schemes are necessary to verify industrial scale sustainable production, and are these context appropriate? How can the various different contexts in which biomass is used be reconciled within coherent frameworks and using effective stakeholder processes?

A successful scoping dialogue is an essential first step towards clarifying areas of common concern and agreement on sustainable woody biomass, and will explore ways to resolve differences within these two contexts under the common theme of sustainable production and consumption.

### **What TFD brings to the topic of Sustainable Biomass (TFD's Niche)**

TFD provides a unique forum in which to address the concerns of all stakeholders and to answer the question: “given that woody biomass will continue to grow as a renewable component in the global energy mix, then how should we ensure its sustainability?” Importantly, TFD provides a neutral platform for dialogue. As no single organization or group dominates the dialogue process, diverse stakeholders feel welcome and empowered, leading to outcomes that are made durable by the sense of ownership shared by all participants. A dialogue is only as valuable as the breadth and depth of those actors who participate, and TFD's process ensures broad participation that enables strong uptake of dialogue outcomes. TFD will seek in particular to include companies, NGOs, civil society organizations and government representatives that are affected by sustainable biomass policies, but which have not yet committed to or directly engaged with them.

TFD also brings considerable related experience to building common ground for sustainable supply-chains in the forest sector. With over 15 years of convening dialogues on contentious forest issues with business, NGOs, government, and other stakeholders, TFD builds on a successful track record of conflict resolution. Previously, the dialogue on Intensively Managed Planted Forests (IMPF) helped resolve concerns of local communities and NGOs on industrial-scale forest plantations. This dialogue recently began anew in 2015 as new initiative on Tree Plantations in the Landscape. Understanding ‘Deforestation-Free’ is an ongoing dialogue initiative around global commitments by large multi-national corporations to eliminate deforestation from their supply chains.

### **The Objectives and Outcomes of the Scoping Dialogue**

TFD's multi-stakeholder process will seek to build trust, share learnings, identify gaps, and seek common ground in policy solutions for communities, business (forest owners, biomass producers, and power generators), NGOs, regulators, certification bodies, and other key stakeholders from both Global North and South contexts. Most importantly, the Scoping Dialogue will prioritize creating a path forward for the stakeholders to continue to make meaningful progress in achieving a common vision for sustainable woody biomass.

## Outputs

1. A *background paper* will be commissioned prior to the dialogue to provide participants with a baseline understanding of the concept and context of sustainable woody biomass, and to present ideas to stimulate discussion. It will give an overview of existing global use of woody biomass, its differing contexts and impacts, outline the market and prospects for growth, and will discuss the main challenges confronting the effective implementation of sustainable woody biomass globally. The paper will be finalized and made publicly available after the dialogue.
2. The dialogue co-chairs will prepare an *official report* summarizing participants' experiences during the scoping dialogue. The summary report will be distributed widely, and key findings will be presented to priority stakeholders in the sustainable biomass space.
3. Other *communications-related outputs* could include press releases, targeted outreach via social media, news articles published online following the dialogue in regional and international outlets that will report out on key messages, and perhaps edited video to be posted on TFD's website.

## Process

The TFD Secretariat and the Advisory Group will collaborate on all aspects of the dialogue process. The Advisory Group will include a wide range of leading actors in the sustainable biomass space representing multinational organizations, transnational corporations, NGOs, and civil society groups. The Advisory Group will help to select a diverse group of participants for each dialogue in a process that solicits engagement from all stakeholder groups, and the final cohort of participants will be balanced so that all stakeholder groups are represented equally. The Advisory Group will also determine the co-chairs for the dialogue that along with the TFD Secretariat will help facilitate the dialogue process. The co-chairs will likewise reflect a diverse and balanced set of stakeholders.

The dialogue will host 25 – 30 participants, including interested TFD Steering Committee members, company representatives, community representatives, NGOs, biomass producers, regulators, academic experts, and certifiers. The Scoping Dialogue Advisory Group will be responsible for developing and approving the participant list and final invitations for the Dialogue.

## Going Forward

Next steps following the dialogue will be determined by the dialogue partners and TFD's Steering Committee. Steps could include:

- A further series of more in-depth Field Dialogues that look into the challenges of sustainable biomass energy on the ground, in both developing and developed contexts.
- Splitting the dialogue into two separate strands to focus on more context specific challenges associated with traditional and industrial woody biomass for energy use.