



Bioenergy in combatting climate change – views of key Finnish stakeholders

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Abstract [*Full text available in Finnish, see: <https://el-tran.fi/analyysit/>*]

Curbing climate change requires reduction of atmospheric greenhouse gas concentrations. One of the key measures in reaching this goal is the transition to low emission energy sources. According to the current calculation rules, forest-based bioenergy is carbon-neutral in the energy sector. Increasing the use of bioenergy plays a key role in Finland's energy and climate policy, however, in recent years the debate on its impact on emissions has been lively heated.

In addition to electricity, heat and biofuels, it is possible to produce various material products from wood. Forests bind carbon dioxide from the atmosphere and play a key role in ensuring biodiversity and, for example, in providing recreational opportunities. It is obvious that the different goals of forest use compete against each other, and it is not necessarily feasible to implement all of them simultaneously.

The utilization of the Finnish forests is guided by political decisions. Guidance is based on the EU energy and climate policy, but the solutions

issued at national level carry more weight. Finnish forest policy is influenced not only by Parliament and the government, but above all by the key stakeholders in lobbying and non-governmental organizations and companies. Moreover, officials and researchers have the opportunity to influence policy-making.

Finnish energy and climate policy policies on forests have recently been a topic of debate. The chosen line is both defended and criticized. The level of discussion has left much to be desired, as key concepts have been used misleadingly; instead of case-based dialogue, rhetorical gains have been pursued in social media and some public events.

For this analysis, 20 Finnish key stakeholders in the forest or bioenergy sector were interviewed between September 2017 and January 2018. The aim was to increase the understanding of how the forests would be used wisely from the point of view of combatting climate change. The approach to the topic was bioenergy-focused, but the interviews also sought to take account of the specific perspective of each interviewee's organization.

All the key stakeholders interviewed emphasized the importance of combatting climate change and sustainable forestry. Bioenergy produced from the side streams of forestry and industry was generally considered a sustainable form of energy production. From the climate perspective, the smartest way to use wood was to produce long-lasting wood products. The interviewees were fairly unanimous in predicting that the increase in the share of wind and solar energy will also change the role of bioenergy in both the Finnish energy system and indeed globally. On the other hand, many of them also estimated that, due to the close connection between bioenergy and the forest industry, bioenergy will remain part of the Finnish energy system in the future.

The key stakeholders' views differ, above all, about what kind of climate benefits the increased use of wood is considered to be able to achieve, what opportunities forest-based biofuels have in reducing transport emissions, and what would be

a fair way to take into account the role of forests in climate policy both within the EU and internationally.

Demand for products manufactured by the Finnish forest industry continues to grow, for example, as a result of rising standards of living in China and India, the growth of e-commerce, and efforts to replace plastic with renewable materials create new business opportunities. However, forest resources are not enough to replace all fossil inputs, and it is not possible, for example, to realize all of Finland's planned investments in pulp, bioenergy and biofuels within the framework of sustainable use of domestic wood. The economic feasibility of new production plants also poses a challenge, with production processes often capital-intensive. Increased demand for wood may also affect the financial viability of planned projects. It is also possible that the role of forests and the carbon sink in the country will grow in climate policy, particularly if the aim is to limit the global average temperature increase to 1.5 degrees, in line with the Paris Agreement objective. The need for carbon sinks may be more pronounced, especially if the technological means to remove carbon from the atmosphere (e.g. Bioenergy with Capture and Storage, BECCS) do not work as envisaged in the emission reduction scenarios. The pressures from the current review of the EU climate policy, and hence the forestry policy, which aims at climate neutrality by 2050, will also increase pressure.