

LULUCF Roadmap feedback

**Reasons why delayed harvest and storing carbon in forests is not the optimal climate solution.**

It is essential to safeguard the carbon sequestration in forests and other lands. But one must keep in mind that the forestry and agricultural systems are dynamic and fulfill several functions in parallel. To formulate a target of increasing the EU removals from the current 250 – 300 Mt CO<sub>2</sub>/year to 500 Mt by 2050 can backfire in the long run. Forests take up CO<sub>2</sub> when growing and they store carbon. Compared to fossil carbon deposits this storage is temporary and can easily be threatened by forest fires, pests, storms and other natural disturbances, when most or all of the carbon is released. Old forest and “natural forests” have very limited net CO<sub>2</sub> up-take, whereas young forests have high growth rates and high up-take of CO<sub>2</sub>. As a result, managed forests composed of stands of all age-classes have the highest total sequestration of carbon. With a high harvesting rate, the substitution of fossil materials and fossil energy can be maximized.

The development over time in member states with highly developed managed forestry proves that this strategy is best for the climate. High growth rate and high harvesting rate has also led to constant growth of the standing stock in the forests.

To focus on carbon storage only can break this win-win-strategy and lead to negative climate effects. Lower harvesting rate will lead to aging forests with gradually lower net CO<sub>2</sub> up-take, and eventually to saturation and no net up-take. Meanwhile, substitution will decrease and more fossil energy and materials will be used. A short-term increase in sinks noted in LULUCF will lead to lower sink in the future, and higher emissions in other sectors of the economy.

Production of renewable materials and renewable fuels should be the primary activity for agriculture and forestry. These products are renewable, based on solar energy, and they can to a large degree substitute fossil materials and energy, not least by using all wastes and residues in an optimal way. Farmers and forester want to produce, and this also generates income in rural communities and regions in industries and transports. The main activity for farmers and foresters cannot be to store carbon to compensate for emissions from fossil fuels in other sectors. It is, however, in the landowners own interest to safeguard the soil quality, including carbon, and farm methods can be developed to increase carbon content. Finally, a comment to the statement that LULUCF numbers have declined after 2008, and is expected to decline further in coming years. Projections of LULUCF numbers have always been difficult to make. LULUCF in EU27 has varied annually between 251 and 335 Mt CO<sub>2</sub> since 2000. The slight decrease during the very last years, mainly after 2016, reflects natural disturbances like forest fires in southern Europe and bark beetle infestations in central and northern Europe. In some countries, aging forest stands can also be an explanation. These changes illustrate how difficult it is to formulate targets for the LULUCF sector.

It is important to realize that LULUCF reporting does not include all positive carbon effects of forestry. Carbon storage in wood products is calculated, but not the substitution effects, both for wood products, paper products and biofuels. These effects appear in other sectors of society. The result of the substitution is that fossil carbon remains in geologic long-term storage for millions of years to come.