The Royal Swedish Academy of Agriculture and Forestry (KSLA) (https://www.ksla.se/en/) welcomes "green investments" within EU, however we have observed that the proposed Taxonomy document has several shortcomings which all could be contra productive if implemented.

KSLA consider that is of outmost importance that a steering document should be based on science. This is not the case regarding sustainability of the Nordic forest management systems, the uptake of CO<sub>2</sub> in managed forests, or bioenergy systems. A Taxonomy must also be in line with existing EU legislation, as the recently decided RED II, as well as national, environmental legislation. Moreover, the use of national statistics about CO<sub>2</sub> balances in land use is the best way to judge the forest and agriculture sectors climate impact.

The Taxonomy aims at the financial market, but the negative consequences for the SMEs farm and forest owners could be significant. The proposal, as we understand it, means that investments in agriculture and forestry would be considered non-sustainable. This is incorrect and would significantly restrict financing and increase investment costs in these sectors and the expansion of a long-term sustainable Bioeconomy.

Proposed criteria for forest management include approval and checks by authorities. Carbon (C) balance measurement before forest action will have a significant negative impact on property rights and local owner's engagement. It will be a very costly C inventory on millions of sites compared with the RED II more statistically accurate CO<sub>2</sub> data obtained nationally. Likewise, the proposed criteria for agriculture management will give similar problems which goes in the opposite direction of the Commissions work within the Fit for Future Platform and the new CAP.

The description that bioenergy is a *transitional activity* is not grounded in scientific knowledge. There exist a significant amount of scientific research confirming the long-term sustainability, including biodiversity and C efficiency, of bioenergy systems (see Appendix). The utilisation of forest residues and by-products replacing fossil fuels has led to a more than 50% reduction of the Swedish CO<sub>2</sub> emissions since 1970, not harming other sustainability criteria. Residues and by-products from the forest and agriculture sector are utilised with increasingly resource efficiency co-producing heat, power, biofuels and bio-products by advanced technologies, which is a prerequisite to reach fossil-free energy systems.

The Nordic forestry based production systems provides major positive environmental effects and should be open for green investments in its present form (see Appendix). The substitution of fossil based products by Swedish forest based, and their cascading use, is estimated to an annual  $CO_2$  reduction of some 42 Mton today. In addition, the annual net increase in national carbon stocks corresponds to some 40 Mton  $CO_2$  (eq. to 70% of Sweden's total emissions), due to well-developed forestry management schemes and high productivity. The potential of BioCCS further improves the systems' C mitigation.

There is an obvious risk that the complexity of the criteria regarding improved forest management and regeneration has adverse effect on C mitigation, and there is today no mutual conclusion among researchers concerning best mitigation measures (see Appendix). The detailed forest management plans might be contra productive due to (i) the planning

horizon (10-20 years) is too short for boreal forests where research suggest 100-200 years, (ii) increased bureaucracy reduces profitability for forests owners (330 000 private in Sweden) and their interest for silviculture, and (iii) measures increasing ecosystem C stock are not included e.g. (N)fertilization. Thus, it is unlikely that the regulation will lead to increased forest growth and mitigation. Finally, a clear and scientifically-based definition of "Close-to-nature forestry" is a prerequisite before including in the Taxonomy.



## THE ROYAL SWEDISH ACADEMY OF AGRICULTURE AND FORESTRY

## Appendix

This reference list includes scientific publications which exemplify the existing scientific knowledge which is not considered in the proposed Delegated Act on EU Sustainable Finance Taxonomy, regarding the opinions listed in the consultation reply by The Royal Swedish Academy of Agriculture and Forestry (KSLA). <u>https://www.ksla.se/en/</u>

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