

Open letter to:

EU Environment Council
Transport, Telecommunications and Energy Council
The Estonian Presidency of the Council

September 26, 2017

We, the undersigned Swedish NGOs, are writing to express our deepest concern regarding the proposed LULUCF regulation which risks having detrimental and long-term effects on both climate and biodiversity. The proposal by Estonian presidency, favors an active forestry and supports the EU forest sink to decrease with harmful impacts on the climate. The planetary boundaries for climate and biodiversity are already exceeded¹ and catastrophic consequences are ahead if stringent climate mitigation measures are not urgently taken.

Sweden promotes itself as a leader when it comes to sustainable forestry and bioeconomy. The Swedish and Finnish Forest Industries, among others, are strong lobbyists and use the climate as a pretext to increase their forest harvest, production and economic rates. By endorsing a so called bioeconomy, natural forests are systematically clear-cut and replaced by even-aged tree plantations, poor of species, to acquire alleged sustainable wood products and bioenergy. Over 90 % of all forests in Sweden have already been affected by forestry in some way² and few high conservation value forests remain. According to official reporting under the EU Habitats Directive, 14 of 15 forest biotopes in Sweden do not have a favorable conservation status.³ Mainly due to this habitat destruction, over 1,800 forest-living species are red-listed in Sweden.⁴

The intensive forestry, which is promoted, is not only destructive to biodiversity, but also to climate. When forests are clear-cut, large volumes of greenhouse gases are released from the soil, especially on peat land.^{5,6} In general, there is a pattern of decreasing carbon pools in tree plantations as compared to forests.⁷ In Sweden, over half of the productive forests are young, less than 60 years old.⁸ Old-growth forests aged up to 800-3000 years can still continue to function as carbon sinks and by protecting older forest ecosystems from land-use change, greenhouse gas emissions can be avoided.^{9,10,11}

Climate change implies increased stress and vulnerability for the forest species. Natural forests resist and recover better from fire, storm, insect outbreaks and other types of climate impacts, allowing species to migrate and adapt easier, compared to fragmented areas of tree plantations and managed forests with dense monocultures of pine and spruce, which are the dominant trees in the Swedish forest landscape. Mixed-deciduous forests have higher albedo (reflect more sunlight back to space, thus having a cooling effect), are more resilient to the negative impacts of climate change, and yield more ecosystem services in general.^{12,13,14,15}

Bioenergy is not carbon-neutral. The burning of bioenergy emits carbon dioxide immediately which contributes to the greenhouse effect just like fossil fuels. The atmosphere does not distinguish carbon from one source to another. It takes many years to compensate for these carbon emissions: in a 50-100 year perspective, energy from forest biomass can even have larger climate impact than fossil fuels.^{16,17,18} The use of both bioenergy and fossil fuels need to be reduced.

If wood is used as building material instead of concrete there is a potential for limited climate mitigation under certain conditions.¹⁹ Other forest products have negligible impact as carbon stocks, considering that most of the products, such as paper, are short-lived. In Sweden, only a

small fraction (20 %) ends up in long-lived products such as timber. In addition, the pulp and paper industry is a very large consumer of energy.²⁰ Curbing this industry would reduce overall energy usage and increase storage of carbon in forests.

The total energy and resource use often increases as a result of increased efficiency, since the energy and materials which are freed are used for other purposes. Similarly, an increased supply of biofuels does not automatically offset usage of fossil fuels since an increase in supply has historically led to increased usage.

Sweden has signed the UN Convention on Biological Diversity (CBD), committing to significantly halt the current loss of forest biodiversity by 2020.²¹ Today only 5 % of the productive forest (less than 3 % below the montane region) is formally protected, mainly as nature reserves and national parks²² despite the fact that at least 17 per cent of terrestrial areas should be conserved through ecologically representative and well connected protected areas by 2020 (Aichi-Target 11).²³

Sweden holds a considerable proportion of the remaining old-growth forests of Europe. According to leading scientists and the Swedish government, 20 % of the productive forest land needs to be protected in order to safeguard the biodiversity in the long run.^{24,25}

In the national strategy for the formal protection of forests, a large portion of the calculation (more than 50%) is based on voluntarily allocated forests by the forest companies and other forest owners.²⁶ This form of protection is not long-term nor guaranteed, and if current levels of forest harvest are maintained or increase, the voluntarily allocated forests are more likely to decrease or be reallocated in the future, releasing more greenhouse gases than are accounted for in the calculations based on current levels of harvest.

Considering that biodiversity targets will not be achieved by 2020 and old-growth and other high conservation value forests still are being clear-cut at a higher rate than such forests are being protected, the current harvest rate cannot be considered as sustainable. We cannot afford to lose any of these high conservation value forests in Europe.

What is needed?

In order to mitigate climate change, everything possible should be done to prevent carbon dioxide entering the atmosphere. The LULUCF regulation needs to have evidence-based climate mitigation strategies which include the full climate impact of forestry and bioenergy.

Simultaneously, stringent consideration to biodiversity and ecosystem services needs to be incorporated in those strategies. The overall target must be socio-ecological economics and policies that operate within the planetary boundaries.

We need urgent measures to reduce greenhouse gas emissions and safeguard biodiversity.

The LULUCF Regulation must:

- ✓ Discourage increased harvesting which reduces the forest carbon sink. If countries get debits, they should not be discounted, but an economic effect needs to follow to give incentives to climate friendly forest use and standing forests.
- ✓ Base forest reference levels on historic intensity in forestry and not on the basis of future harvesting levels, in order to accurately account for emissions from increased harvests.
- ✓ Introduce clear incentives to stop deforestation; debits from deforestation should not be discounted.
- ✓ Ensure policy coherence in relation to the Habitat and Bird Directive, especially when it comes to afforestation, reforestation and restoration of degraded forest lands. EU needs more resilient and biodiverse forests, not plantations or monocultures.

- ✓ Include managed wetlands in the accounting as mandatory. The restoration of wetlands on drained peat-lands should be promoted, since forest on these lands emits a lot of greenhouse gases.
- ✓ Ensure there is no double counting of credits or offsetting of fossil fuel emissions. A flexibility between LULUCF and the Effort Sharing Decision (ESR) is not justifiable as emission sources are very different and the level of uncertainty in quantifying climate impacts of the LULUCF sector is far greater than in quantifying emissions under the ESR. The current proposal includes a danger of double counting when compensation is used at the same time as flexibility to ESR.
- ✓ Give the Commission a mandate to make a proposal on how the ambition level of the LULUCF sector can be increased. The Commission needs to assess what the role of land and forests is in the EU's fair share of the target to limit global warming to 1,5 degrees.

EU and it's Member States must:

- ✓ Stop the global destruction and felling of primary and natural forests. Protect the remaining peatland forests, old-growth forests and other high conservation value forests. Ensure compliance with the EU Birds and Habitats Directives including the EU Water Framework Directive.
- ✓ Stimulate forest harvesting methods which minimize the release of greenhouse gases from soil. Support the use of nature-oriented and continuous cover forestry.
- ✓ Promote natural regeneration and favor mixed forests with a greater proportion of deciduous trees.
- ✓ Prioritize long-lived wood products. Short-lived forest products require a lot of energy to produce and release carbon to the atmosphere rapidly.
- ✓ Introduce incentives to reduce the energy consumption and use, as well as reducing the consumption of paper, forest products and other natural resources. Promote energy efficiency and recycling.

We urge you not to overlook the rising scientific community stressing the importance of safeguarding biodiversity and soil carbon stocks for mitigating climate change.

In March 2017, 68 researchers from Finland warned that Finland's forest utilisation plans would accelerate climate change and reduce diversity of nature:

<http://www.bios.fi/publicstatement/>

On the 25th of September, 2017, over 190 scientists from Europe, North America and Australia stressed that there is a need for a scientific basis of EU climate policy on forests:

<http://www.euractiv.com/section/energy/opinion/need-for-a-scientific-basis-of-eu-climate-policy-on-forests/>

We also gravely urge you not to be misled by production-orientated claims of the Forest Industries. Climate change and biodiversity loss are existent global environmental problems and it is important that you do NOT legitimize a more intensive forestry – we need functional ecosystems to mitigate climate change.

Yours sincerely,

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Imanol Rubio Bertilsson, Chairperson, Friends of the Earth Sweden
Lo Jarl, CEO, Ecologist, Naturarvet
Jonas Bane, Spokesperson, Climate Action Sweden
Ahmed Al-Qassam, President, PUSH Sweden

- ¹ Rockström, J. et al. (2009). *Planetary boundaries: exploring the safe operating space for humanity*. Nature 461, 472-475; <http://www.nature.com/nature/journal/v461/n7263/full/461472a.html?foxtrotcallback=true>
- ² Larsson, A. (2011). *Tillståndet i skogen – rödlistade arter i ett nordiskt perspektiv* (only in Swedish). Report 9. Swedish Species Information Center SLU, Uppsala: <http://www.artdatabanken.se/media/2258/tillstaandet-i-skogen.pdf>
- ³ Swedish Species Information Center (2013). *Arter & naturtyper i habitatdirektivet – bevarandestatus i Sverige 2013*. SLU; https://www.artdatabanken.se/globalassets/ew/subw/artd/2.-var-verksamhet/publikationer/15.-arter-och-naturtyper-i-habitatdirektivet/arter_naturtyper_2013.pdf
- ⁴ Swedish Species Information Center (2015). *Red-listed species in Sweden* (summary in English). Swedish Species Information Center SLU, Uppsala; http://www.artdatabanken.se/globalassets/artdatabanken/2-vad-vi-gor-var-verksamhet/publikationer/22.-rodlistan-2015/rodlistan_2015.pdf
- ⁵ Amiro et al. (2010). *Ecosystem carbon dioxide fluxes after disturbance in forests of North America*. Journal of Geophysical Research 115. doi:10.1029/2010JG001390; <http://onlinelibrary.wiley.com/doi/10.1029/2010JG001390/abstract>
- ⁶ He, H., Jansson, P.-E., Svensson, M., Björklund, J., Tarvainen, L., Klemedtsson, L., & Kasimir, Å. (2016). Forests on drained agricultural peatland are potentially large sources of greenhouse gases – insights from a full rotation period simulation. *Biogeosciences* 13, 2305-2318; <http://www.biogeosciences.net/13/2305/2016/>
- ⁷ Liao C, Luo Y, Fang C, Li B (2010). *Ecosystem Carbon Stock Influenced by Plantation Practice: Implications for Planting Forests as a Measure of Climate Change Mitigation*. PLoS ONE 5(5): e10867; www.plosone.org/article/info:doi/10.1371/journal.pone.0010867
- ⁸ The Swedish National Forest Inventory (2016). *Table 3.2 - Produktiv skogsmarksareal efter År, Län, Tabellinnehåll och Åldersklass*. SLU: http://skogsstatistik.slu.se/pxweb/sv/OffStat/OffStat_ProduktivSkogsmark_Areal/Tabell32.px/table/tableViewLayout2/?rid=221f3f1d-67b5-479e-afed-a531e50ec9d0
- ⁹ Luysaert, S., Detlef Schulze, E., Börner, A., Knohl, A., Hessenmöller, D., Law, B. E., Ciais, P. & Grace, J. (2008). *Old-growth forests as global carbon sinks*. Nature 455: 213-215, <http://www.nature.com/nature/journal/v455/n7210/abs/nature07276.html>
- ¹⁰ Mackey, B., Prentice, I. C., Steffen, W., House, J. I., Lindenmayer, D., Keith, H. and Berry, S. (2013). *Untangling the confusion around land carbon science and climate change mitigation policy*. *Nature Climate Change*, 3, 552–557; <http://www.fern.org/sites/fern.org/files/fern-comment/Untanglingper%20theper%20confusionper%20aroundper%20landper%20carbonper%20scienceper%20andper%20climateper%20changeper%20mitigationper%20policy.pdf>
- ¹¹ Berg, B., Gundersen, P., Meentemeyer, V., *Kolfastläggning uppskalad till svensk skogsmark – en sänka för koldioxid* (only in Swedish). SLU Fakta Skog Nr 6, 2005; <http://www.slu.se/globalassets/ew/ew-centrala/forskn/popvet-dok/faktaskog/faktaskog05/fs05-06.pdf>
- ¹² Holm, S. O. (2015). *A Management Strategy for Multiple Ecosystem Services in Boreal Forests*. *J. Sustain. Forestry* 34, 358-379.
- ¹³ Gamfeldt, L. et al. (2013). *Higher levels of multiple ecosystem services are found in forests with more tree species*. *Nat. Commun.* 4:1340 doi: 10.1038/ncomms2328.
- ¹⁴ Noss, R. F. (2001). *Beyond Kyoto: Forest management in a time of rapid climate change*. *Conservation Biology*, Volume 15, Issue 3, 578-590; <http://www3.interscience.wiley.com/journal/118983796/abstract> (Abstract)
- ¹⁵ Nelson, E. A., Sherman, G. G., Malcolm, J. R. & Thomas, S. C. (2007). *Combating Climate Change Through Boreal Forest Conservation: Resistance, Adaptation, and Mitigation*. University of Toronto/Greenpeace Canada; <http://www.greenpeace.org/canada/Global/canada/report/2008/4/combating-cc-boreal-forest-preservation.pdf>
- ¹⁶ Johnston, C. M. T. & van Kooten, G. C. (2015). *Back to the past: Burning wood to save the globe*. *Ecological Economics* 120, 185-193.
- ¹⁷ Ter-Mikaelian, M. T., Colombo, S. J. & Chen, J. (2015). *The Burning Question: Does Forest Bioenergy Reduce Carbon Emissions? A Review of Common Misconceptions about Forest Carbon Accounting*. *Journal of Forestry* 113 (1), 57-68.
- ¹⁸ Holtsmark, B. (2015). *Quantifying the global warming potential of CO2 emissions from wood fuels*. *GCB Bioenergy* 7 (2), 195–206.
- ¹⁹ Nassen, J., Hedenus, F., Karlsson, S. & Holmberg, J. (2012). Concrete vs. wood in buildings - An energy system approach. *Building and Environment* 51, 361-369.
- ²⁰ Swedish Energy Agency & Statistics Sweden (2015). *Final energy use in the industrial sector, by industry, from 1990, TWh*; http://www.energimyndigheten.se/globalassets/nyheter/2015/energy-in-sweden-2015_150826.xlsx
- ²¹ Swedish Environmental Protection Agency (2015). *Fifth National Report to the Convention on Biological Diversity - Sweden*; <https://www.cbd.int/doc/world/se/se-nr-05-en.pdf>
- ²² Swedish Environmental Protection Agency & Swedish Forest Agency (2017). *Värdefulla skogar - Redovisning av regeringsuppdrag* (only in Swedish); <https://naturvardsverket.se/upload/miljoarbete-i-samhallet/miljoarbete-i-sverige/regeringsuppdrag/2017/vardefulla-skogar-redovisning-av-regeringsuppdrag-2-170130.pdf>
- ²³ Convention on Biological Diversity (visited 2017). *Aichi Biodiversity Targets*; <https://www.cbd.int/sp/targets/#GoalC>
- ²⁴ Protect the Forest (2010). *Scientists call for action: Protect Sweden's Old-Growth Forests*; <http://www.skyddaskogen.se/en/211-english-category/actual/2684-scientists-call-for-action-protect-swedens-old-growth-forests>
- ²⁵ Hanski, I. (2011). *Habitat Loss, the Dynamics of Biodiversity and a Perspective on Conservation* *Ambio*. 2011 May; 40(3): 248–255.
- ²⁶ Swedish Forest Protection Agency & Swedish Forest Agency (2017). *Nationell strategi för formellt skydd av skog - Reviderad version 2017* (only in Swedish); <https://www.naturvardsverket.se/upload/miljoarbete-i-samhallet/miljoarbete-i-sverige/regeringsuppdrag/2017/nationell-strategi-for-formellt-skydd-av-skog-reviderad-2-2017.docx.pdf>

