Written Submission from Professor Pete Smith

Comments on policies, proposals and milestones in the land use sector

Page 124: Policy outcome 1 - to enhance the contribution that trees make to reducing emissions through sequestering carbon, we will introduce a stepped increase in the annual woodland creation rates from 2020/21 - combine ambitions for woodland expansion in the LULUCF sector with ambitions for encouraging trees in agricultural landscapes (described in chapter 14).

Page 124: The six policies are positive and will help to meet the woodland expansion targets. To underpin these policies, more research is needed on land suitability for new woodland, and which species / mixes to plant to co-deliver carbon sequestration and enhancement of other ecosystem services. This needs to be spatially disaggregated to support WEAG and to target suitable areas for future woodland expansion.

Page 125: Policy outcome 2 – substitution of construction materials with wood. Make sure full life cycle assessment (LCA) of the wood and traditional products (concrete, steel) is conducted to monitor the greenhouse gas benefits of this substitution.

Page 125: Waste wood. Waste wood that cannot be economically recycled could be used for fossil fuel substitution in energy generation, i.e. biomass energy. This could be added as the residual end use for waste wood, to contribute to greenhouse gas reduction targets.

Page 131: Factual error: It is stated that “Well maintained peatlands are an important source of carbon storage, or sink”. While well maintained peatlands can be both a significant stock of carbon, and can also be a sink – these are not interchangeable terms. A carbon stock is the total storage of carbon in the system, and a carbon sink is the net annual removal of carbon dioxide from the atmosphere. One can have systems with very high carbon storage / stocks but without providing a sink. Well maintained peatlands often represent a small sink for carbon (best estimates are removals of 0.3 tonnes of carbon per hectare per year) – but contain vast stocks of carbon (storing much more carbon below ground than forests do above ground).

Page 131: Policy outcome 1. Ambitious peatland restoration targets. Important to make sure that the restored peatlands are monitored to gather data on climate mitigation benefits, and improvement of other ecosystem services.

What is missing 1: Over 1 million hectares of peatland is not degraded. Policies must be put in place to protect this well-maintained peatland – in addition to restoring the degraded peatland as proposed.

What is missing 2: Peatland extraction for fuel and horticultural use still occurs in Scotland. While this may be acceptable on very small scales (e.g. peat burning in remote communities), commercial exploitation of peat is incompatible with peatland
protection and with climate ambition and should be terminated. Banning the extraction of peat for horticultural use in Scotland, and banning sale of horticultural peat, would help to reduce national and global emissions from peatland destruction, and will also help to educate the public about the adverse impacts of horticultural peat extraction. A timetable for the rapid phasing out of commercial peat extraction should be proposed (as has been proposed for coal in the wider UK).

**General comment 1:** It is not specified how each of the policies and proposals contributes (in MtCO$_2$e) to the projected LULUCF carbon envelopes (Figure 22 on page 122). This makes the projections opaque. A projection of the assumed mitigation in Mt / kt CO$_2$e for each policy / proposal should be provided for transparency and to allow the assumptions to be assessed / tested.

**General comment 2:** The IPCC in its 2006 revised guidelines for greenhouse gas inventories suggested that accounting of “agriculture” and “land use, land-use change and forestry (LULUCF)” be accounted for together under “agriculture, forestry and other land use (AFOLU).” This whole land-base accounting helps to consider the land as a whole – and to integrate land management plans for greenhouse gas mitigation / carbon sinks. This would help with, for example, policies and proposals to increase carbon stocks and protect large and vulnerable carbon stocks in soils and vegetation across agriculture, forestry and peatlands.

**Prof. Pete Smith, FRSB, FRSE**

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