

# Forest to Bog Restoration: Meeting the Costs



Image Credit: Norrie Russell

# Afforested peatlands in UK

The most recent estimate places approximately 18% (439,410ha) of the UK's peatlands under forestry

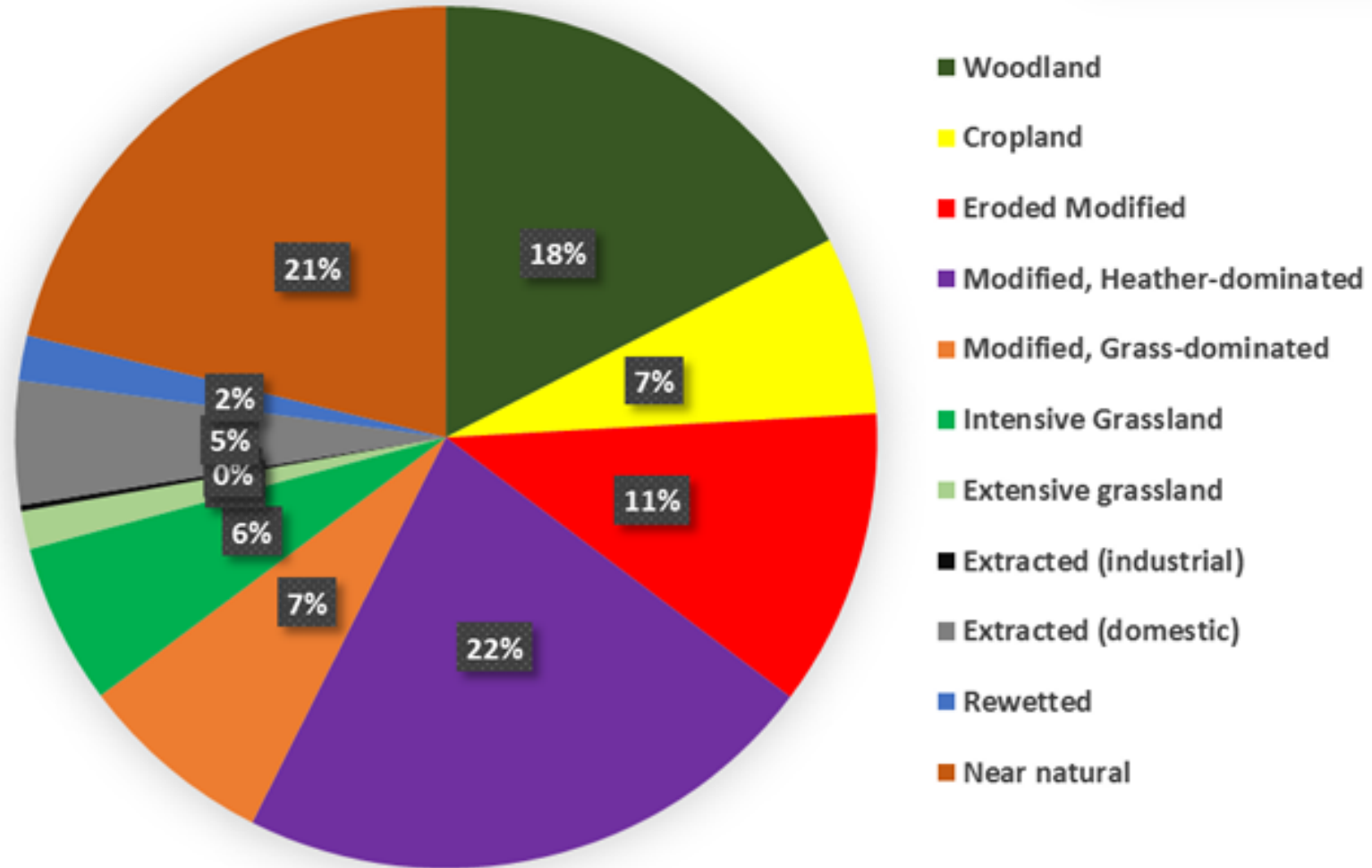


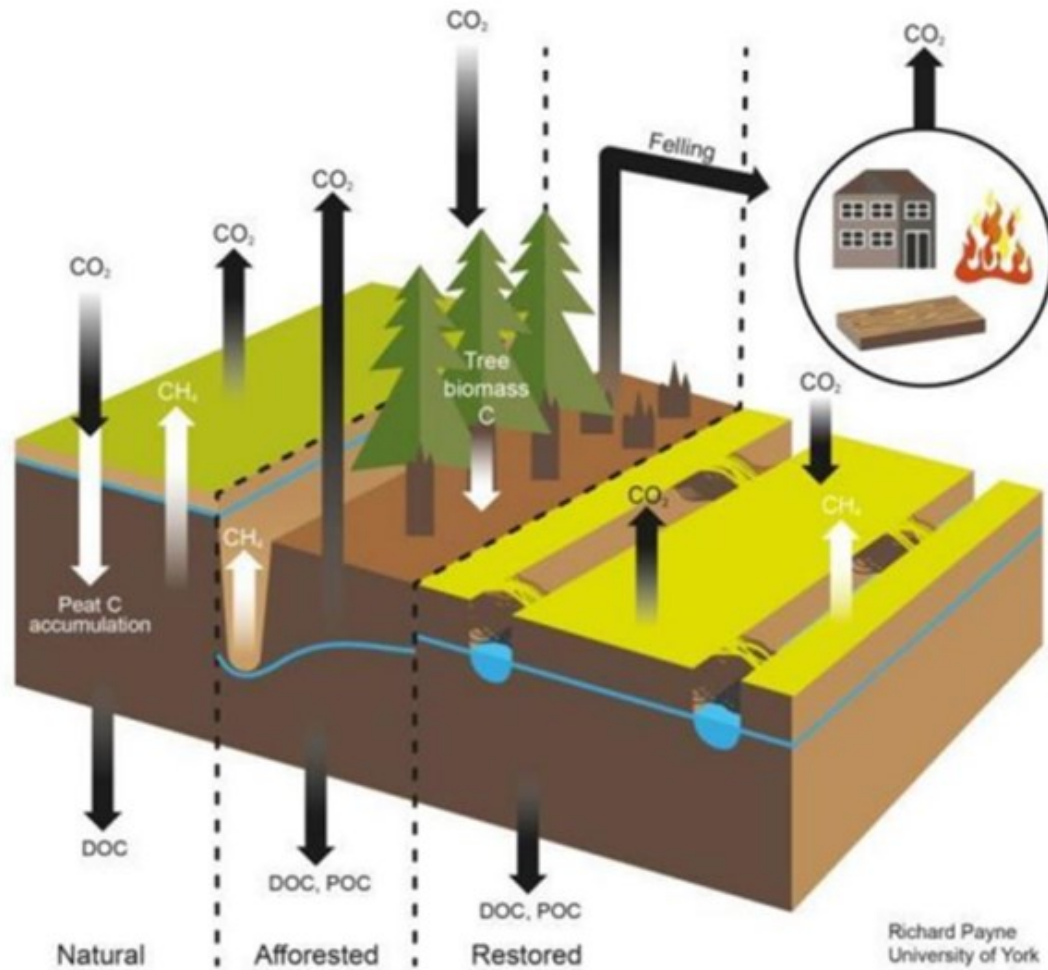
Figure from Artz *et al.* (2018) using Data from Evans *et al.* (2017)

# The Impacts of Afforestation



Image Credit: Nick Littlewood

# The Impacts of Afforestation



- Current evidence indicates that following afforestation there is a loss of carbon from the peatland carbon stock and a gain in tree carbon sequestered from the atmosphere. Whether tree uptake is sufficient to outweigh the losses from the peat carbon stock is still unclear.
  - Shallow peat: can lead to a net benefit
  - Deep peat: more ambiguous due to a lack of empirical evidence
- There is consensus that even with our current knowledge limitations, the known carbon sequestration potential of an intact bog and longevity of that carbon store indicate that the best climate benefit would be gained by having healthy functional bogs with forestry located on mineral soils.

# Forest to bog restoration

- Restoration steps: felling, brash removal, surface reprofiling and rewetting
- Possible to rehabilitate these damaged areas of peatland and return lost climate and biodiversity functions within a 10 – 20 year timescale



# The Cost of F2B



- Forest to bog restoration can be considerably more costly than other forms of peatland restoration
- Private finance can help with these costs and provide continued income for land owners

# Peatland Code Barriers

- Agreement of baseline
  - Once trees are felled?
- Emission factors
  - Robustness of the code underpinned by breadth of source data
  - The most researched locations are in the Flow Country, but not that much in the rest of the UK (I believe)



Image Credit: Renée Kerkvliet-Hermans

# Recommendations

- Government commissioned review of the current science to allow and early set of metrics and emission factors to be created for forest to bog restoration for the peatland code.
- Agreement between all nations on how forest to bog restoration emissions get accounted and where the base line for the peatland code starts (before or after felling).
- Coordinated monitoring research to further build data sets on forest to bog restoration under different management prescriptions across the UK.



# Thank you for listening

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