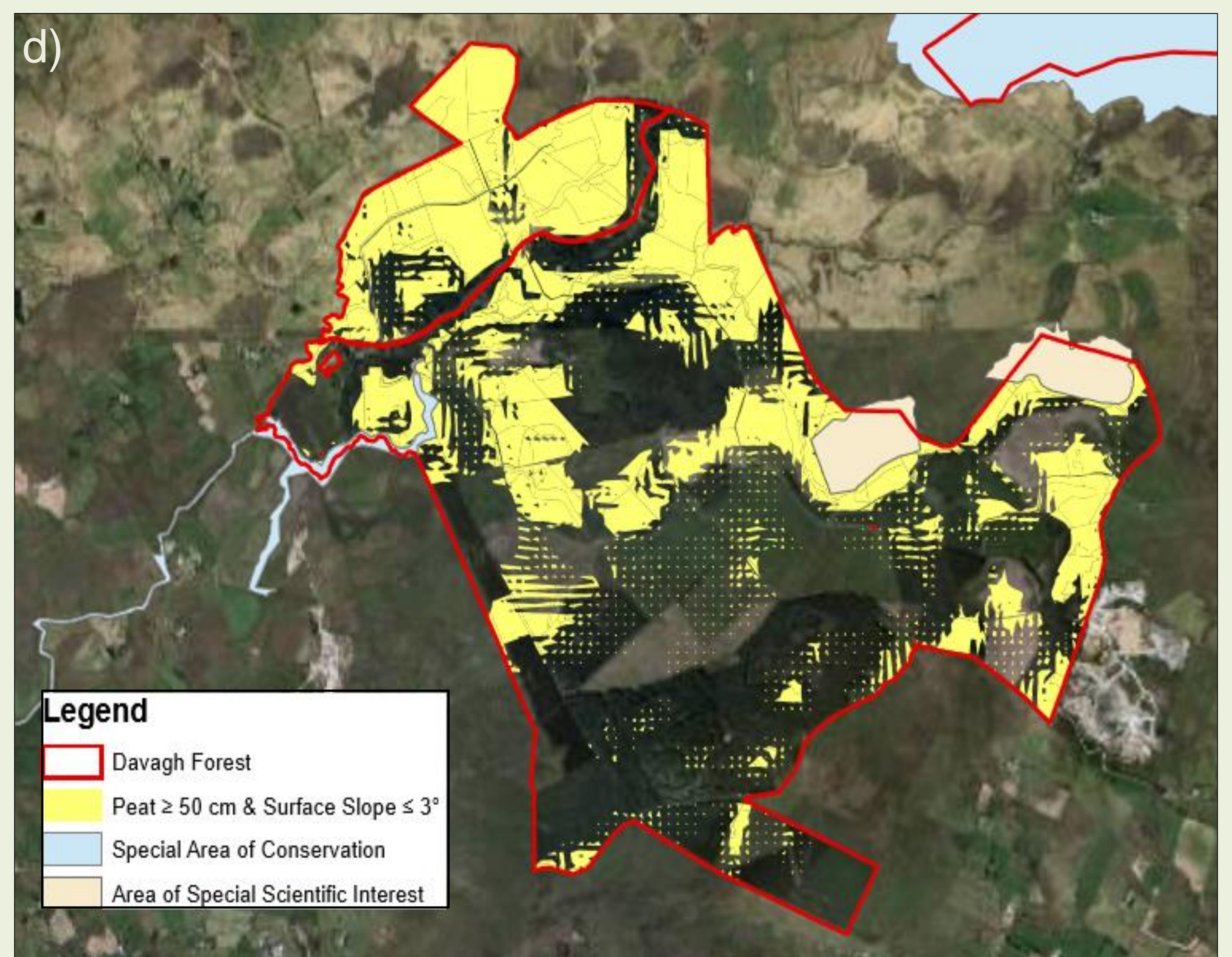
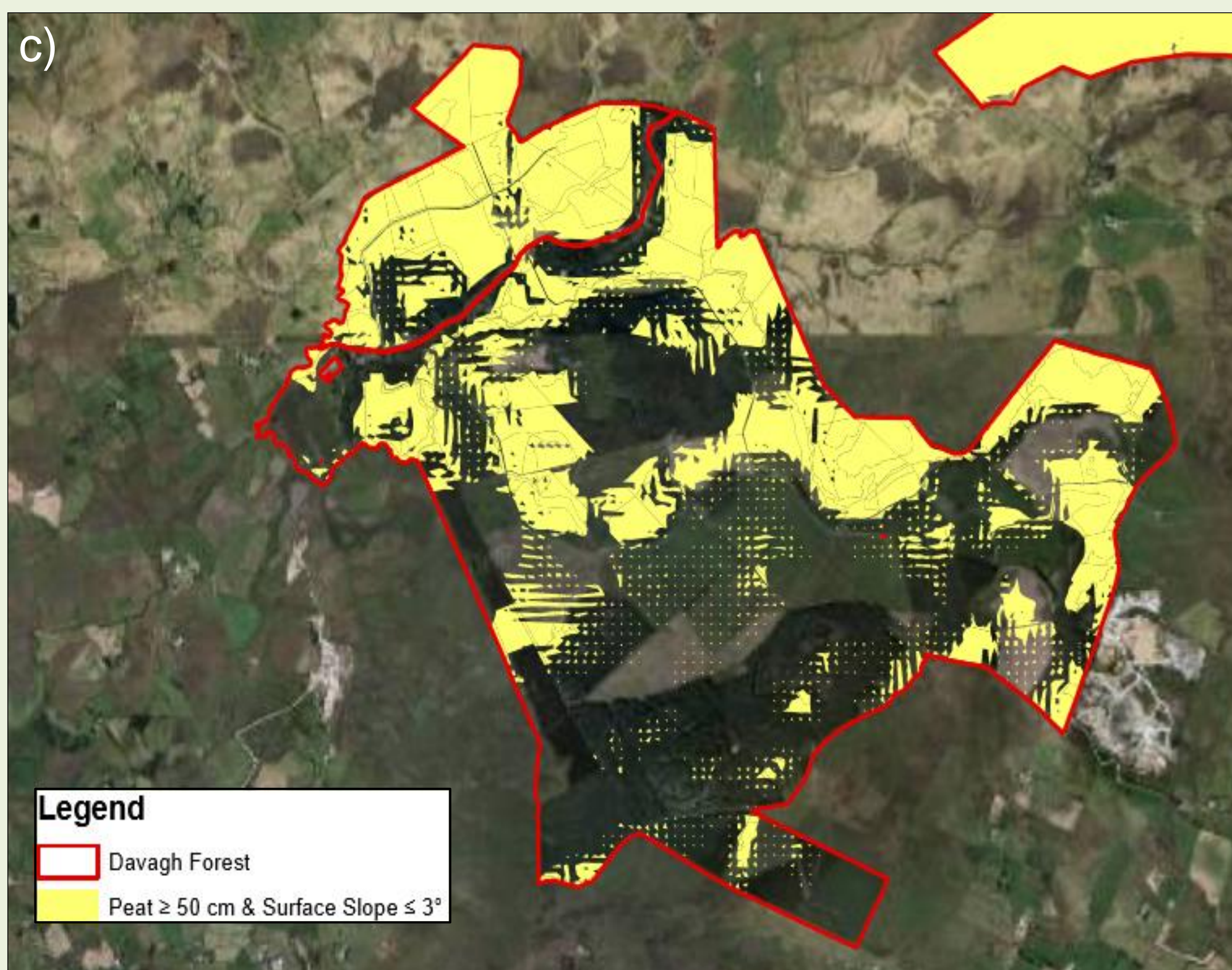
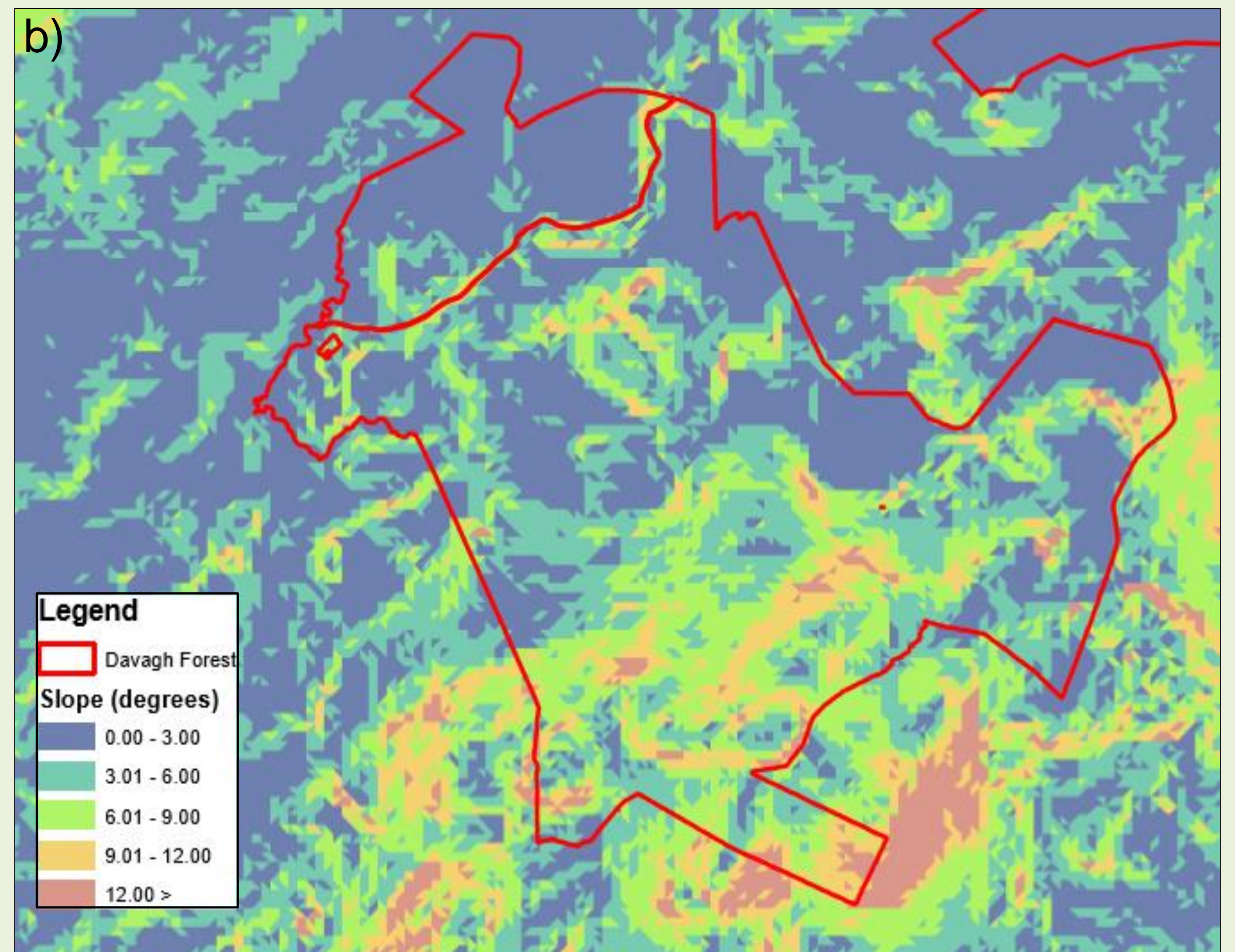
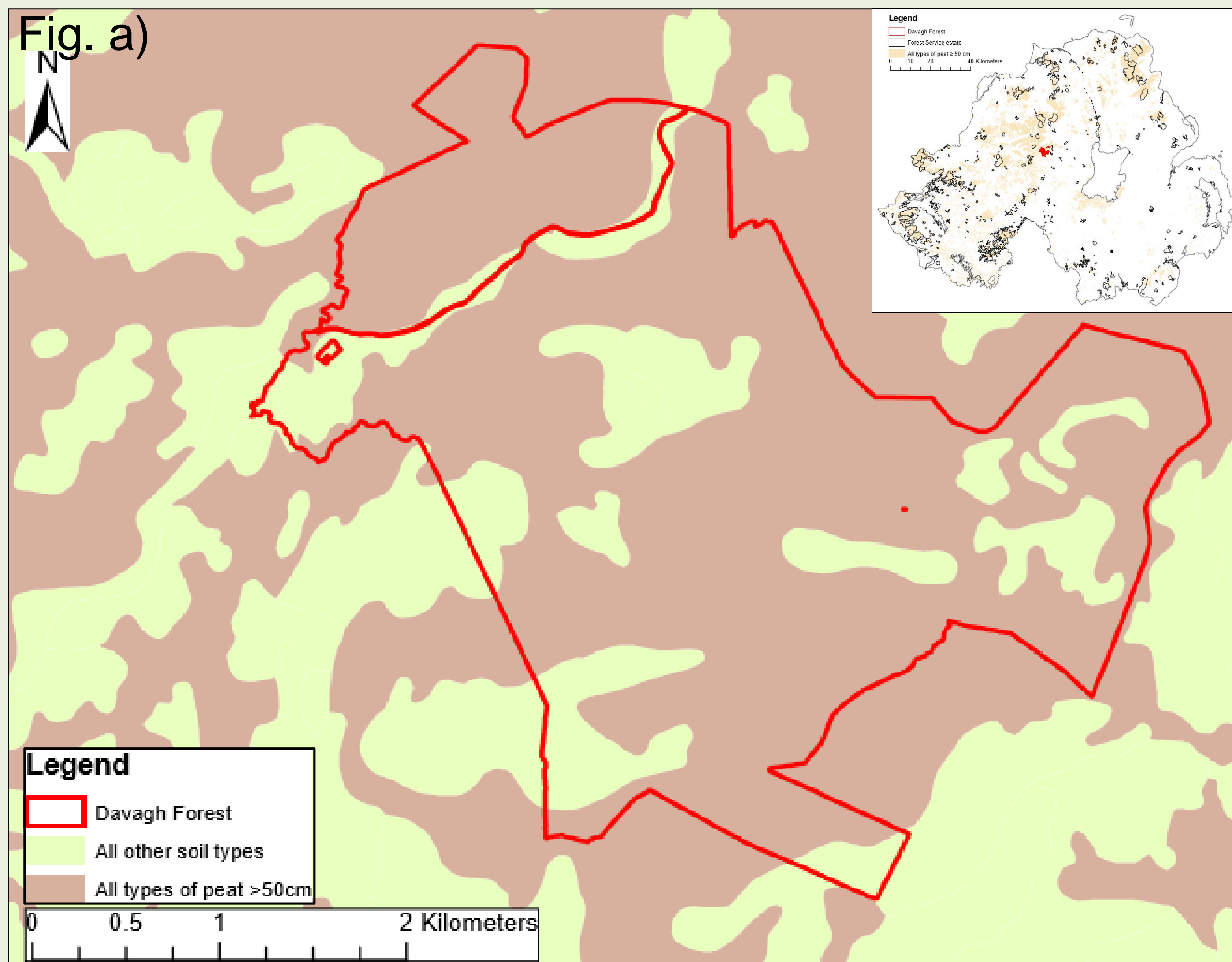


## 1. Introduction

The Forest Service has recently produced a revised strategy for restoring peatland habitats to reflect Northern Ireland's forestry and biodiversity strategies. Previously, Forest Service initiated plans to restore areas of afforested peatlands in Creggan Forest, Killeter Forest, Mullaghfad Forest and Glenshane Forest, with varying degrees of success due to site factors. The revised strategy will be implemented in conjunction with a GIS-based planning tool, which identifies areas that meet soil type and slope criteria, and allows these areas to be prioritised based on forest stand conditions and their proximity to priority habitats.

## 2. Forest Service GIS model for identifying restorable peatland areas

The planning tool uses the deep peat classification from the AFBI Northern Ireland soil map (Fig. a, below) combined with a digital terrain model (b) to produce a flat deep peat model (c) which is overlaid on the Forest Service estate map to identify potential restoration areas and enables information on forests such as tree growth and age, and the proportion of open ground to be included. Once areas are spatially displayed they can be prioritised for restoration and additional criteria (d), e.g. proximity to designated areas, can be added to determine where restoration efforts should be focused to maximise benefits. The example below shows the extent of areas meeting the soil and slope criteria in Davagh Forest. The presence of designated areas in close proximity to these identified areas further increases the benefits of restoration. The main method used to restore afforested peatland will be tree removal and drain blocking. This will allow the water table to rise and create suitable hydrological conditions which will facilitate recolonisation by *Sphagnum* spp. and other species typical of active peat. Focusing on areas with topographically suitable conditions could potentially increase restoration success and reduce restoration cost. To gauge the success of this approach long-term monitoring of restoration projects is included.



### 3. Criteria for determining suitability of candidate sites for restoration

The following additional criteria may be used to identify the most suitable sites for restoration:

- (1) Specified as future open ground in Forest Design Plans
- (2) Adjacent and integral to designated areas, or non-designated priority habitat
- (3) Peat depth  $\geq 0.5$  m and slope  $\leq 3^\circ$  over most of the area
- (4) Previously open ground that has become colonised with  $> 400$  conifer seedlings/ha, or, uneconomic plantation (e.g. high rate of mortality, or poor growth due to wetness, nutrient deficient, or disease)

Sites meeting some or all of these criteria will then be prioritised into different categories.

#### 4. Prioritising restoration

The ability of a site to meet the above criteria will result in it being classed as either:

Priority 1: Meeting all criteria – uneconomic stands or colonised areas shown as open ground priority habitat, adjacent and integral to designated or non-designated priority habitat, and where peat depth  $\geq 0.5\text{m}$  and slope  $\leq 3^\circ$  over most of the site.

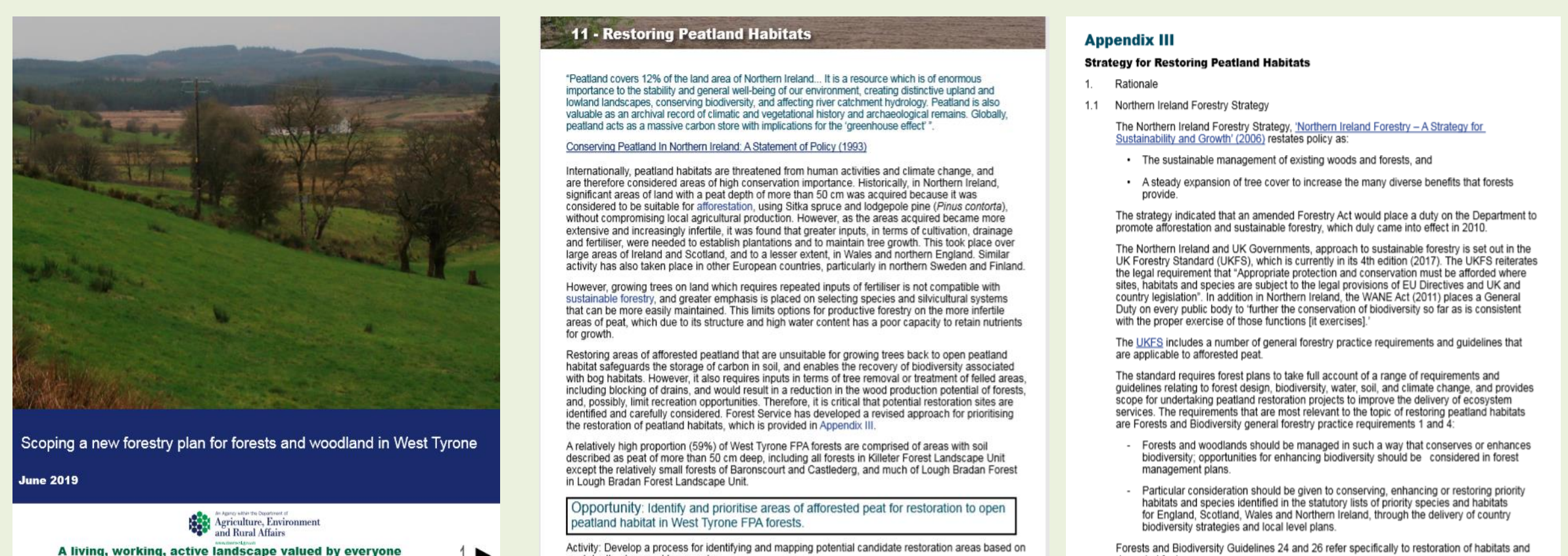
Priority 2: Planned open ground, predominantly meeting remaining criteria; may include up to 30% productive stands (Sitka spruce ( $\geq$  General Yield Class 8) or Lodgepole pine (General Yield Class 6)).

Priority 3: As for Priority 2, but does not fully meet peat depth and slope criteria.

## 5. Peatland restoration and stakeholder consultation

Peatland restoration is an important topic in our stakeholder engagement process and Forest Service Northern Ireland is producing scoping documents for each of Northern Ireland's Forestry Planning Areas.

This process provides an opportunity for stakeholders to become involved in developing plans for the promotion of afforestation and sustainable forestry throughout Northern Ireland. Further information can be obtained by scanning the QR code below or at <https://www.daera-ni.gov.uk/consultations/scoping-new-forestry-plan-forests-and-woodland-west-tyrone>



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