

Scotland considers Lidar for forest and peatland monitoring



An annual airborne laser scan of the diverse landscapes in Scotland is being considered to monitor the health of the nation's forests, peatlands and natural ecosystems, according to a report by UK newspaper 'The Guardian'. The Scottish government is currently assessing the benefits of conducting regular 3D imaging flights. This initiative aims to provide crucial data on nature restoration efforts,

spanning from the temperate rainforests of the west coast to the peaks of the Cairngorms, resembling an annual CT scan for biodiversity.

The proposed laser scans would generate a comprehensive 3D map of Scotland each year. This valuable data could be used to evaluate progress on climate and biodiversity targets, improve information for Scotland's carbon market by monitoring changes in forests and peatlands, and study the effects of ecosystem transformations caused by global warming.

Unveiling ecosystems from above

A spokesperson for the Scottish government stated that they are exploring the potential for a national natural asset scan through repeated collection and delivery of high-resolution Lidar and photo imaging of Scotland's land surface, [The Guardian](#) reports. They also mentioned considering a pilot study in a specific region to assess the effectiveness and interest in utilizing Lidar-imagery data across various government sectors.

While billions of pounds are dedicated to global nature restoration, monitoring often relies on outdated measurement techniques. Lidar technology has proven to provide accurate assessments on a landscape scale. Experts have welcomed the proposal, emphasizing the significance of large-scale habitat monitoring for promoting positive environmental change. The Lidar scans, conducted by planes equipped with scanning equipment flying across the country, would contribute to a more precise understanding of Scotland's ecosystems.

If the Scottish government proceeds with regular Lidar surveys, it would position itself as an international leader in standardized and routine quantification of vegetation biomass and the overall health of the nation's peatlands. This ambitious undertaking would facilitate scientific research and support the country's nature recovery and carbon sequestration goals. Lidar technology has already been successfully implemented on a large scale in countries such as Norway, Sweden and the USA.



Flanders Moss is an internationally significant ecosystem undergoing active restoration. This area provides a diverse and valuable peatland habitat. (Image courtesy: NatureScot)