

January 2025









What does the Centre for Landscape Regeneration do?

Focusing on UK landscapes, including the Cairngorms, the Centre for Landscape Regeneration (CLR) is dedicated to cutting-edge research that develops practical, nature-based solutions to promote sustainable land management and ecosystem regeneration. It addresses environmental challenges by strengthening economic resilience, supporting local communities, and helping landscapes adapt to societal pressures and a changing climate. The CLR is a collaborative initiative led by the University of Cambridge, in partnership with the Centre for Ecology & Hydrology, NIAB, and the RSPB.

Why was this report written?

In 2024, the CLR conducted a survey of landholdings within the Cairngorms National Park to gather detailed data on land management practices, associated costs, revenues, and employment within key enterprise sectors. This report summarises the findings.

What comes next?

The survey results will inform research across the CLR, providing insights into land management in the region, including current and future land use and landuse scenario modelling. This analysis will assess the potential impacts of different landscape futures on biodiversity, greenhouse gas emissions, and economic factors.



To examine current land management practices—along with associated costs, revenue, and employment across major enterprise sectors in the Cairngorms National Park—the Centre for Landscape Regeneration conducted interviews with 18 landholdings during the summer of 2024.

What is this report?

This report illustrates a summary of the responses to the survey from the 18 landholdings. All references to landholdings throughout the report are referring to the 18 landholdings surveyed only. Firstly, an overview of the survey coverage is presented, followed by a summary of each major enterprise type: Livestock, Forestry, Tourism and Recreation, Sporting, Other Economic Activities, and Additional Income. Any information based on a reduced sample size has been illustrated in the text.

Who is this report for?

This report is primarily prepared for the 18 landholdings that participated in the Centre for Landscape Regeneration survey. It aims to provide valuable insights for individuals working and living on these landholdings.



The 18 landholdings illustrate the diverse mix of enterprises within the Cairngorms National Park, as well as represent the highly variable size of landholdings in the region, whether in terms of area, number of residents or employees. This reflects the variation in land use and ownership, as well as the role of these landholdings as both workplaces and communities, contributing significantly to the local economy and population within the National Park.



18 landholdings



1 - 10 enterprises each *median 8*



185,347 ha surveyed *890 – 49,000 ha*



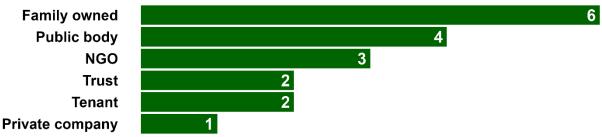
~40% land coverage Cairngorms National Park



0 – 200 residents *median 12*



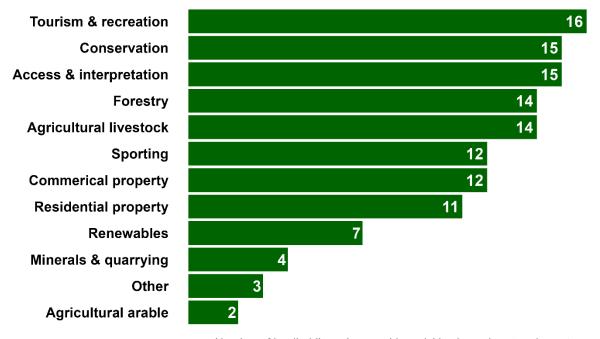
0.6 – 85 FTE employees *median 11*



Number of landholdings under different management categories



The landholdings surveyed varied greatly in size: the smallest being 890 ha, and the largest 49,000 ha (median 6,916 ha). The diverse mix of enterprises supported by these landholdings include, but are not limited to: tourism and recreation, conservation, sporting, and forestry. The minimum number of enterprises on any single landholding was 1, the median 8, and the maximum number was 10. The income generated by the different enterprises varied significantly between the landholdings, though tourism and recreation was consistently a significant contributor.



Number of landholdings that provide activities in each enterprise category



The survey reports on roughly 14,000 ha of land managed in-house for livestock and 16,500 ha of tenanted livestock farming across 14 landholdings. Across the surveyed landholdings, livestock management varied in scale and type, including cattle, sheep, ponies, deer, and chickens. Those with cattle ranged from 5 to 130 animals, those with sheep had 300 to 1200 animals. Ponies, deer and chickens were managed on 1 estate each. Grazing occurred across a range of land cover types, including in-bye, improved and unimproved grassland, and open hill/heather moorland. Most landholdings used a mixed grazing system between hill and grassland. In addition to the traditional grazing opportunities, the survey recorded one instance of grazing in wetlands by ponies and in woodland by cattle. There were also two instances of sheep grazing within woodlands as part of a mixed-grazing regime. Of those landholdings which graze livestock on grass, 76% did not apply fertiliser.

Tenanted 29%

In house & tenanted 29%

In house only 43%

Percentage of landholdings per type of management for livestock



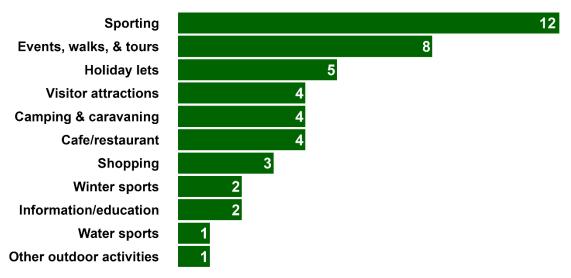
Forestry activities were carried out on 14 of the landholdings, covering 25,700 ha. Roughly 86% (22,000 ha) of this was managed in-house (71% of landholdings) and 14% (3,700 ha) was let-managed (29% of landholdings). All in-house forestry in the survey was managed with deer stalking, and all but three forestry sites were fenced. Tree spacing within blocks varied between 1.5 to 2 m, equating to an average of \sim 2,500 trees per ha. Rotation varied between landholdings and tree species: 45-80 year cycles for non-native commercial conifers and 70-100 year cycles for native Scots pine. Three landholdings clear-felled (including both native and non-native conifers), 5 landholdings both cleared and thinned, 1 landholding thinned only, and 1 landholding collected only windblown trees. Three landholdings have stopped the harvesting of timber altogether. The annual timber yield varied between 13 and 19,650 tonnes. There was a range of timber end products produced including sawn logs, wood chip for biomass, fencing, construction and pallet wood and carbon credit certification.

Tenanted 29%

In house only **71%**



Tourism and recreation activities were recorded on 16 landholdings. These landholdings with tourism and recreation enterprises onsite had between 1-22 types of tourism-related activities. The activities included: sports, outdoor pursuits, holiday accommodation, café and restaurants, car parks, and events. These activities were mostly managed in-house, though there were some instances of external parties renting space for activities. The type of recreation enterprise and activities varied between the landholdings: for example, 1 landholding did water sports, 2 did winter sports, and 8 did guided walks and tours. Only 1 landholding stated that they carried out other outdoor activities e.g. climbing, mountain biking, bird watching and trail running.





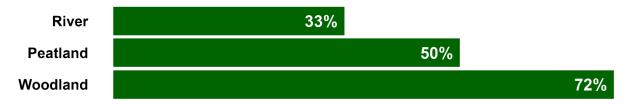
Twelve landholdings carried out recreational sporting activities. Of these, 9 held red grouse shoots, with 33% of these carrying out walked-up shoots only, and 66% performing a combination of walked-up and driven. Three landholdings held shoots for pheasant, one for partridge and one carried out wildfowl shoots. Fishing activities were performed on two landholdings and deer stalking for red and/or roe deer was carried out on ten landholdings. Of the 12 landholdings which carried out sporting activities, one held only personal shoots, while shoots on the remaining 11 landholdings were commercial. Land management for sporting activities varied: 8 landholdings controlled predators, 8 carried out muirburn, 5 cut heather, 4 provided medicated grit, 4 performed habitat restoration, and 2 controlled the spread of bracken. Management and sporting rights were largely split between in-house and let for all fishing, shooting, and stalking activities.



Percentage of landholdings under each type of management per sporting activity

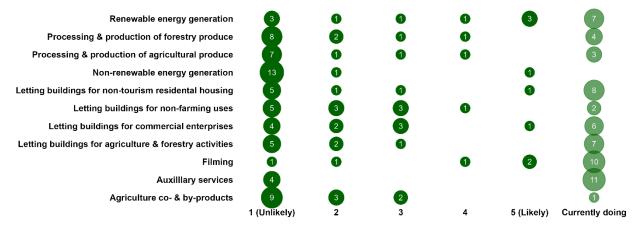


Habitat restoration activities were carried out on 14 landholdings. Woodland restoration (restoring existing and creating new woodland) was the most prominent activity, performed at 13 landholdings, and covering over 19,500 ha. Four of the landholdings conducted woodland restoration activities without actively planting trees and four sites utilised grazing as a management method. 79% of landholdings who carried out restoration activities used fencing and 92% undertook deer management. Other woodland restoration activities included deadwood management, Aspen regeneration, and planting in the riparian zone. Peatland restoration occurred on nine landholdings covering over 4,800 ha. This consisted of ditch blocking, reprofiling, and re-vegetation. Land managers emphasised the importance of ongoing livestock management to ensure favourable conditions are maintained. Finally, river restoration activities were performed on 6 landholdings. This predominantly comprised of re-meandering the watercourse and flood-plain reconnection, but also included wider activities such as riparian woodland creation, addition of woody debris, bank reenforcement, and tree removal.





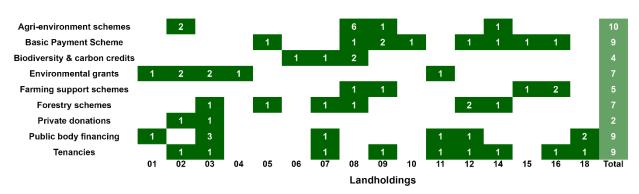
The landholdings also generated income from a range of other activities. Seven landholdings received income from renewable energy generation. This was predominantly from small-scale hydropower schemes which generated an income of £100,000 – £120,000 per annum. No landholdings participated in non-renewable energy generation and there is very little interest in adopting this in the future. 11 landholdings permitted filming, which generated an annual income between £5,000 – £350,000. Other landholdings saw filming related activities as ad-hoc revenue, receiving a negligible financial return for the activity. 70% of landholdings received between £1,000 – £20,000 annually from auxiliary services, such as payments for powerlines or phone/radio masts on the landholdings.



Number of landholdings currently carrying out additional income generating activities & the likelihood of uptake of these in the future, if not currently doing, on a scale of 1 (likely) to 5 (unlikely)



Nine landholdings received basic payment from the Scottish Government, with an annual value ranging from £32,000 – £200,000. Four landholdings were in receipt of other farming support payments: Less Favoured Area Support Scheme, Scottish Upland Sheep Support Scheme, and Scottish Suckler Beef Support Scheme. Four landholdings received agri-environmental and climate scheme payments through wetland grazing moorland management, organic conversion, muirburn and heather cutting, and summer hill grazing. Eight landholdings received payments for conservation activities through other environmental grants such as the EU LIFE project, Endangered Landscapes and Seascapes Programme, Peatland Action Fund, and Nature Restoration Fund. Three landholdings had begun developing carbon and/or Biodiversity Net Gain credits for peatland and woodland restoration activities.



Number of income support sources used by each landholding



The results of this survey highlight the rich diversity of enterprises across the Cairngorms National Park, showcasing both long-standing, traditional land uses and innovative new income streams. Key land management activities such as grazing, forestry, and recreational sporting remain a strong foundation of the economic and cultural identity of the landscape. However, with shifts in both public and private funding mechanisms, alongside these practices, an increasing number of landholdings are exploring new income streams to diversify revenue. This adaptability to new opportunities reflects the wider changes and growing pressures across the land management sector, but with notable variation in the enterprise and funding structures across the landholdings. Broadly, the larger landholdings had more enterprises, and more diverse income support sources.

Significant investment of resources is being directed towards peatland, woodland, and river restoration projects on numerous landholdings. These initiatives, are reshaping degraded landscapes, supporting biodiversity, and enhancing the natural resilience of ecosystems alongside the sustainable approaches to land management within the livestock and forestry sectors themselves. Many of these restoration activities are complemented by active land management practices, in particular deer management, fencing, and adaptive grazing practices to safeguard these recovering areas.

This report captures a snapshot of land management practices across the Cairngorms, balancing sustainable management and restoration of ecosystems, while simultaneously adapting to an evolving economic and social landscape.



This project is part of the Centre for Landscape Regeneration; a partnership between University of Cambridge, the UK Centre for Ecology and Hydrology, NIAB and the RSPB.

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www.changingtheenvironment.org

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