



Economics of Driven grouse shooting

Overview

The report reviews the evidence on the size and financial performance of the grouse shooting sector and assesses the economic, social and environmental impacts of grouse moor management as currently practiced. An initial assessment of the available evidence was discussed with relevant stakeholders (shooting interests, grouse moor managers, environmental groups, government bodies and academics) to gather any further evidence of grouse moors and their impacts and to explore implications of different policy options. In all 15 interviews were conducted involving 24 participants¹. Acknowledging the limitations of the available evidence, the report then assesses the likely impact of three policy options – business as usual (no change) (**BAU**), the introduction of a system of licensing (**Licensing**), driven grouse shooting banned (**Ban**). The report concludes that the imposition of a **ban on driven shooting** would result in an immediate and locally significant negative impact on the rural economy (e.g. loss of income from shooting; loss of jobs (direct employment and jobs in supply chain) and the cessation of associated management activities.

The report contains seven case studies.

Grouse moors

Grouse shooting is practiced in two forms, driven and walked-up with the former the most common. Driven grouse shooting tends to take place where densities of grouse are high. Producing the high densities of grouse required for driven shooting requires intensive management of grouse habitat (grouse moor), grouse predators and an increase in infrastructure. Grouse production is underpinned by legal (e.g. control of foxes and crows) and sometimes illegal management practices (e.g. killing of protected wildlife). The increasing intensity of grouse moor management in recent years appears to reflect increased expectations for larger grouse bags and driven shooting.



Red Grouse shoot
An estimated 700,000 red grouse are shot in the UK each year.

Grouse moors typically form part of large estates with a range of farming, forestry (particularly in Scotland) and sporting land uses and enterprises.

Declining grouse numbers and poor economic returns led to a reduction in grouse moors over the last century. In more recent times there has been an increase in grouse numbers with larger bags attributed to more intensive management.

Size of grouse moor sector

The number and area of grouse moors is not precisely known. The latest estimates suggest there are around 310 grouse shooting estates in Great Britain (190 in England², 120 in Scotland³), managing between 0.8 and 1.8 million hectares of land (0.2-0.4 million hectares in England, and 0.5-1.5 million hectares in Scotland).

The average size of grouse moor enterprises per estate is much larger in Scotland than England (4,500 – 12,500 hectares in Scotland; 1,130 – 1,810 hectares in England). Grouse moors cover an estimated 43-65% of the UK's upland moorland area and 7-19% of Scotland's overall land area.

Financial performance

Managing a grouse moor is costly and most are loss-making in purely financial terms. Driven grouse shooting generates higher revenues than walked-up shooting (fees per brace for driven grouse shooting are almost twice as high as those for walked-up grouse), but also incurs higher costs (driven shooting - £38/ha; walked-up - £13/ha⁴). Both are often loss-making. Loss-making grouse moors are subsidised by their owners, rather than receiving direct public subsidies, though most benefit from agricultural support payments.

Despite losses, owners continue to invest in managing moorland intensively for grouse. This can be explained by non-financial motivations such as personal enjoyment and prestige. Most grouse moors provide shooting for estate owners, family and friends as well as shooting clients, with clients paying substantial fees for driven shooting. With a brace of grouse valued from £3,750 to £5,500, higher grouse bags raise the capital value of estates, and intensification of management can therefore be reimbursed through increased land values⁵.

Economic impacts

Grouse shooting enterprises spend money in rural areas and provide a range of full time and seasonal employment. The size of these impacts is debated. The figures (most of which are generated by the

sector) suggest that grouse shooting may support up to 4,000 FTE jobs in Great Britain (1,800 direct jobs and 2,200 in supply chain) of which 2,500 FTE are in Scotland and 1,500 FTE in England, equating to about 0.09% of rural employment in England and Scotland. Additional spend by shooting clients supports jobs and revenue in the hospitality sector.

Comparing the economic impact of grouse moors with alternative land uses (all of which are subject to regulatory and physical constraints) is not straightforward, but some studies show that alternative moorland land uses can generate comparable spending and a more consistent revenue return (over years) to driven grouse shooting on a per hectare basis⁶. In part, this is because grouse shooting may not be possible every year, despite investment in management. Today, in response to poor and uncertain economic returns from traditional land uses, an increasing number of investors are seeing value in investments in land management in pursuit of natural capital and carbon objectives.

In addition to positive effects, grouse moors may also impact negatively on local economies, by discouraging tourism and related economic diversification, and impacting on key ecosystem services.



Hen Harrier
Steve Knell (rspb-images.com)

Social impacts

In core grouse shooting areas, shooting may contribute to cultural heritage and community identity. Social benefits vary and are likely to be concentrated, particularly in areas with high levels of driven grouse shooting close to rural communities and during the shooting season (on shoot days). In contrast, the intensification of grouse moor management can also have negative impacts, displacing other forms of employment and impacting negatively on animal welfare.

Environmental impacts

See briefing on environmental impacts.

Biodiversity – whilst grouse moor management (particularly predator control) can positively benefit species other than grouse (e.g. curlew), it also has a range of negative impacts on biodiversity (e.g. birds of prey).



Curlew
Andrew Parkinson (rspb-images.com)

The legal control of foxes and crows benefits some species of conservation concern.

There is strong evidence that illegal persecution is a major factor in the disappearance of hen harriers and golden eagles from UK grouse moors, limiting their ranges and populations. Thus, a reduction or cessation of grouse moor management would have negative impacts on some species and positive impacts on others.

Climate - grouse moor management involves widespread burning of peatland vegetation, including blanket bog and wet heath inside protected sites.

In recent years, burning has increased as grouse moors have been managed more intensively.



An illegal trap

Despite the law, some birds of prey are still shot, poisoned and trapped on grouse moors.

Ecosystem services - There is growing evidence that burning reduces the delivery of a range of ecosystem services – carbon is lost from peat (to the atmosphere and in water), with the loss of peatland vegetation associated with reduced water flow attenuation.

Peatland restoration, including cessation of burning and rewetting of blanket bog, is widely recognised as having a major role to play in addressing the current climate crisis. Changes in land use and/or a reduction in management intensity on grouse moors on peatlands could enhance the provision of ecosystem services.



Controlled burning
Laurie Campbell (rspb-images.com)

Peatland vegetation is routinely burnt on some grouse moors.

Policy options

The report considers three plausible future policy options for grouse moor management

- Business as usual (no change)
- Grouse shooting licensed
- Grouse shooting banned

The high-level impacts of these policy options are summarised opposite.

Summary of expected impacts of policy options

	Business as usual (BAU)	Grouse moor licensing	Ban on driven grouse shooting
Direct implications and costs	No change.	Little change in practice required for legally compliant moors, but should help to reduce illegal activity. Admin costs could amount to £150k annually for grouse moors and £500k annually for public sector in Britain; cost recovery could impose licence costs averaging £1,600 per grouse moor.	Immediate ban on driven grouse shooting, leading to closure of grouse shooting enterprises.
Effects on land use and management	Likely small decline in grouse moor area, in response to wider opportunities for carbon and natural capital investment.	Extra costs and regulatory scrutiny can likely be absorbed by grouse moors but may cause more to change land use/ land management to carbon/ forestry/ natural capital restoration than under BAU. Most grouse moors continue to be managed as at present, but legal compliance increases. Greater focus on how to manage conflicts with raptors.	Cessation of heather management, predator control, medication of red grouse over ca. 1 million hectares of Britain. Some conservation management (e.g. vegetation cutting and predator control) might continue, as well as small scale heather management for walked up shooting. Some grouse moors would be sold, others would change management under existing ownership. Widespread change in land use and land management – peatland restoration, afforestation, rewilding, changes in grazing.
Economic impacts	Small decline in grouse moor employment and income, offset by increases in other activity.	Moderate decline in grouse moor employment and income, offset by increases in other activity.	Up to 4,000 jobs in grouse moors and supply chains lost; at least partially offset by increases in other management activities, tourism and recreation. Overall small effect on rural economies but could be locally significant. Less orderly transition than under other options. Local economy effects could be dwarfed by benefits of enhanced ecosystem services.
Social impacts	Limited effect on rural communities, cultural heritage or animal welfare.	Small overall effect on rural communities, cultural heritage, animal welfare. Grouse shooting sector could be seen as more sustainable, enhancing public image and reducing divisions of opinion.	Possible effect on some local communities and services in areas dependent on grouse shooting, but generally small impact on rural life. Some impact on cultural heritage and identity on some areas with history and tradition of grouse shooting. Some would see benefit in ending of an activity seen to highlight social inequalities and differences in social attitudes, as well as benefits for animal welfare from large decline in predator control.
Biodiversity impacts	Small declines in heather moorland, red grouse, breeding waders, with small increase in vegetation and species diversity. Continuing illegal persecution of raptors.	Similar but slightly magnified trends to BAU. Illegal persecution of raptors reduced, helping species populations to recover. Improved regulation of heather burning could reduce negative impacts.	Likely decline in area of heather moorland, and populations of species such as red grouse and breeding waders. Enhanced vegetation and species diversity, at least in short term; long term effects would depend on grazing and cutting regimes. Illegal raptor persecution on grouse moors would cease; effects on raptor populations would depend also on habitat change.
Impacts on climate and ecosystem services	Small gains in carbon and ecosystem services, but less than other two options; continuing adverse impacts where moors are intensively managed.	Carbon and ecosystem service benefits greater than under BAU, but some moors continue to be managed intensively with adverse impacts.	Likely benefits for climate, water and flood management. Possible increases in wild fire risk. Changes in landscape could be seen as positive by some and negative by others. Value of ecosystem service changes expected to outweigh local economy impacts.

What needs to happen next

The RSPB believes that the best way to reduce the damaging impacts of grouse moor management is to reduce the intensity of land and species management associated with the production of grouse. To secure this change, we are calling for the introduction of a robust system of licensing. Under a licensing system, some driven shooting could continue, more sustainable shoots would become the standard, and the environmental outcomes would improve.

We call on the UK Government to follow the direction taken by the Scottish Government and to work with interested parties to develop and introduce a regulatory system (licensing) to ensure that grouse moors are managed in a way that benefits nature and key ecosystem services, such as carbon storage, water provision and flood attenuation. Grouse moor management can play a key role in maintaining and enhancing open habitats for nature and climate, but only if current sometimes illegal and environmentally unsustainable management practices are eradicated.

¹Note that the Moorland Association and GWCT either declined to take part in the work or did not respond. ²Denny et al. 2021. Sustainable Driven Grouse Shooting? A summary of the evidence. University of Northampton. ³Grouse Moor Management Review Group. 2019. Report to the Scottish Government. ⁴McMorran et al. 2020. Socio-economic impacts of moorland activities in Scotland. Part 1. ⁵Knight Frank. 2014. The Rural Report – Rural Research ⁶McMorran et al. 2020. As above.



Pools in blanket bog, RSPB Forsinard Nature Reserve
Mike Read (rspb-images.com)

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