

# The effects associated with concentrated and large-scale land ownership in Scotland: a research review

*Report prepared for Scottish Land Commission*

*March 2019*

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# 1 Background and Scope

This research review accompanies the 'Investigation into the Issues Associated with Large-Scale and Concentrated Landownership in Scotland', published by the Scottish Land Commission in 2019<sup>1</sup>. The review provides an additional evidence base for the Scottish Land Commission to assist the formulation of recommendations relating to concentrated and large-scale land ownership in Scotland.

## 1.1 Definitions

The Scottish Land Commission's report is based on the results of a call for evidence published on their website in May 2018<sup>2</sup>. The purpose of the call for evidence was to help the Scottish Land Commission better understand the issues that people associate with concentrated land ownership from the perspective of those directly involved or affected.

The call requested responses from people with evidence and experience relating to areas of the country where there is concentrated land ownership, whereby:

- the majority of land is owned by either a single individual or organisation or a very small number of individuals or organisations; and
- the individuals and organisations have the power to make decisions about how this land is used that effect the whole community.

In the 'Land Lines' paper published by the Scottish Land Commission, Peacock (2018) notes that there are different dimensions related to large-scale and concentrated land ownership. First, the pattern of 'ownerships of scale' (large landholdings) concentrates the ownership of the country in few hands. Second, regardless of the scale of ownership, power over decision-making is concentrated within the boundary of that ownership and sits with a single person or small groups of individuals.

Both dimensions are considered in the Scottish Land Commission report and in the research review that follows.

## 1.2 Policy context

Land use in rural Scotland falls within several overlapping policy spheres (e.g. agriculture, forestry, energy) and is subject to a range of policy instruments (e.g. subsidies, taxes, regulation), some of which are determined at European level, some at UK level and some within Scotland (Thomson et al., 2016).

Scottish policy toward land is increasingly rooted in concerns about fairness, equality and the fulfilment of human rights (Peacock, 2018). The Land Use Strategy (2016-2021)<sup>3</sup>

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<sup>1</sup> [www.landcommission.gov.scot/publications-consultations-research](http://www.landcommission.gov.scot/publications-consultations-research)

<sup>2</sup> The call for evidence introduction can be seen here (the call is now closed): <https://landcommission.gov.scot/call-for-evidence/>

recognises that ownership is an important influence on land use and on the ways that people think about land, although it does not elaborate on how this relationship operates, nor on why it is important (Land Reform Review Group, 2014, p.158). The Land Use Strategy is mainly restricted to ensuring that people have the information to enjoy land responsibly and to participate in decisions when that is thought to be important (*ibid.*).

There are relatively few measures in place in Scotland concerned particularly with the type of landowner or the scale of land ownership, which contrasts with some other countries, where there are specific policy targets and/or land market interventions that relate to who can own land and/or how much land can be owned by one individual<sup>4</sup>. Policy generally influences ownership only indirectly via how land may be used and the rewards accruing to it<sup>5</sup>. Despite the lack of policy targets or controls in relation to who can own land in Scotland (and how much they can own), Peacock (2018) explains that there seems little doubt that Scottish Ministers seek more diverse types of owners, ownership and tenures across Scotland.

For example, in the run-up to the Land Reform (Scotland) Act 2016, the land reform debate included reference to diversity of land ownership in policy rhetoric. Thomson et al. (2016) summarised key references (see Table 1). Principle 2 of the Land Rights and Responsibilities Statement<sup>6</sup> (LRRS) also states that 'there should be a more diverse pattern of land ownership and tenure, with more opportunities for citizens to own, lease and have access to land'. This is mirrored in one of the three strategic objectives of the work of the Scottish Land Commission: to encourage a more diverse pattern of land ownership with the benefits of land spread more inclusively. This objective is accompanied by the Scottish Land Commission's 'long-term outcome' of a fall in concentration of land ownership<sup>7</sup>.

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<sup>4</sup> Glass et al. (2018) considered a range of restrictions in other countries to inform the work of the Scottish Land Commission.

<sup>5</sup> For a detailed overview of policy factors (1900-1980) and a policy timeline (1900-2014) affecting Scottish land ownership, see Appendix 1 of Thomson et al. (2016).

<sup>6</sup> Scottish Government (2017a) <https://beta.gov.scot/publications/scottish-land-rights-responsibilities-statement/>

<sup>7</sup> [Scottish Land Commission Strategic Plan](#) (2018-2021)

**Table 1: References to diversity of land ownership in land reform documentation prior to the Land Reform (Scotland) Act 2016**

Source	Reference to scale and/or diversity of land ownership
Land Reform Review Group – in the group’s remit (set by Scottish Government) <sup>8</sup>	Identify how land reform could “enable more people in rural and urban Scotland to have a stake in the ownership, governance, management and use of land, which will lead to a <b>greater diversity of land ownership, and ownership types, in Scotland</b> ”
Final report of the Land Reform Review Group (2014)	“The concentrated ownership of private land in rural communities places considerable power in the hands of relatively few individuals, which can in turn have a huge impact on the lives of local people and jars with the idea of Scotland being a modern democracy. The Group considers that a <b>less concentrated pattern of land ownership would open-up increased economic and social opportunities</b> in many parts of rural Scotland, helping create stronger and more resilient rural communities”.
Scottish Government Ministerial statements (2014)	Aim for “a fairer, or wider and more equitable, distribution of land in Scotland where communities and individuals have access to land” <sup>9</sup> . Aim to “ <b>build a society with greater diversity of land ownership</b> ” <sup>10</sup> .
Scottish Government consultation paper: The Future of Land Reform in Scotland <sup>11</sup>	Consulted on: “addressing barriers to sustainable development and beginning to diversify patterns of land ownership”. The rationale provided for this to be included in the Land Reform Bill was that: “ <b>in some instances the scale or pattern of land ownership, and the decisions of landowners, can be a barrier to sustainable development in an area.</b> Providing mechanisms to address such situations could allow for potential barriers to sustainable local economic and social development to be overcome”.
The Land Reform (Scotland) Bill (2015) <sup>12</sup>	Part 5 of the Bill aims to introduce a community right to buy land to further sustainable development provided certain conditions are met. The associated Policy Memorandum <sup>13</sup> states that land reform: “has the potential to empower greater numbers of people and, over time, to <b>change patterns of ownership in Scotland to ensure a greater diversity of ownership, greater diversity of investment and greater sustainable development</b> ”.

Source: Thomson et al. (2016)

<sup>8</sup><https://www.gov.scot/publications/land-reform-review-group-final-report-land-scotland-common-good/>

<sup>9</sup> Wheelhouse, P. (2014). Parliamentary answer to Question S4W-19122

<sup>10</sup> Wheelhouse, P. (2014). Address to fourth Community Land Scotland conference, June 2014.

<sup>11</sup>[https://consult.gov.scot/land-reform-and-tenancy-unit/land-reform-scotland/supporting\\_documents/00464887.pdf](https://consult.gov.scot/land-reform-and-tenancy-unit/land-reform-scotland/supporting_documents/00464887.pdf)

<sup>12</sup>[http://www.parliament.scot/S4\\_Bills/Land%20Reform%20\(Scotland\)%20Bill/b76s4-introd.pdf](http://www.parliament.scot/S4_Bills/Land%20Reform%20(Scotland)%20Bill/b76s4-introd.pdf)

<sup>13</sup>[http://www.parliament.scot/S4\\_Bills/Land%20Reform%20\(Scotland\)%20Bill/b76s4-introd-pm.pdf](http://www.parliament.scot/S4_Bills/Land%20Reform%20(Scotland)%20Bill/b76s4-introd-pm.pdf)

### **1.3 Scope of the review**

This review describes and interprets recent and historical academic and other research related to concentrated and large-scale land ownership in Scotland and other countries.

First, the current pattern of land ownership is described and explained, using historical data to chart the key events, trends and policy changes that have led to the present context. The pattern is then characterised further, via a review of data about current ownerships of scale and how they are owned.

Second, research relating to the associated effects of concentrated and large-scale land ownership is reviewed. Three key themes are considered in detail: socio-economic development; governance and control; and disentangling scale from other factors.

Third, the review draws insights from research in other countries. The pattern of land ownership in rural Scotland is regularly described as unique in Europe, although several European countries are currently experiencing challenges related to concentration of agricultural landholdings. Further afield, unequal distributions of ownership persist in many parts of the world leading to impacts on economic development, food security, education and housing provision.

The review concludes by proposing an analytical framework that synthesises the key findings of the review to provide a 'frame' for the Scottish Land Commission when analysing the responses submitted to their call for evidence.

## 2 Scotland's Concentrated Pattern of Rural Land Ownership

This section describes historical changes in land ownership patterns in Scotland, with a specific focus on the concentration of land ownership (as per the definition of concentrated land ownership provided in Section 1.1). It is widely accepted that Scotland has the most concentrated pattern of private land ownership in Europe (e.g. Lorimer, 2000; Cahill, 2001; Wightman, 2001) because of several historic factors, such as feudalism, succession laws, fiscal policies and agricultural support (Thomson et al., 2016).

Whilst history has arguably not been the sole driver for contemporary Scottish land reform (i.e. there has been no overt attempt to right a historical wrong against an identifiable community) (Combe, 2018), the pattern of land ownership in Scotland that has perpetuated over several centuries is a central focus of contemporary debate.

### 2.1 Pre-20<sup>th</sup> century

From the 17<sup>th</sup> century into the second half of the 19<sup>th</sup> century, there was an increasing concentration of land ownership into fewer and fewer private estates (Callander, 1987). Following the Jacobite uprising of 1745-6 and its aftermath, individual property rights were established over former clan territory (Callander, 1987; Devine, 1995; McKee et al., 2013). The control of a new class of landed gentry in the 18<sup>th</sup> and 19<sup>th</sup> centuries resulted in many landlords clearing people from the land, often to capitalise on the more profitable nature of sheep and cattle farming, which emerged because of agricultural improvements (Mackenzie, 1998; McKee et al., 2013). The Highland Clearances, which involved the displacement and eviction of a large proportion of the Highlands and Islands (particularly in the century from 1760), continue to generate debate among historians. However, there is no doubt that this period of history remains present in community awareness in many Highland areas (MacDonald, 1998), retaining powerful historical symbolism today and contributing to negative sentiments about private land ownership (McKee et al., 2013).

In the mid-19<sup>th</sup> century, large tracts of land were bought up by 'wealthy industrial magnates' and sheep farms were converted to sporting estates managed for the shooting of deer and grouse as the primary land use (MacMillan et al., 2010; Mustin et al., 2017). The collapse of sheep prices in the 1870s made land available at relatively low values for sporting use, which subsequently led to some 60 per cent of Scotland becoming sporting estates (Orr, 1982). A government survey in 1872 found that 90% of Scotland's land area of 7.9 million hectares was owned by 1,380 private land owners (Callander, 1987). By 1873, half of Scotland's land was owned by 118 people, and 50 per cent of the Highlands and was in the hands of 15 landowners – this peak of concentrated land ownership continued for several decades (Armstrong and Mather, 1983).

At the end of the 19<sup>th</sup> century, land settlement – the breaking up of large farms or estates into small holdings – began to take place in Scotland in response to rural overcrowding, landlessness and deprivation that had developed in many parts of the Highlands and



Islands during the 19<sup>th</sup> century (Mather, 1985). Following the Napier Commission Inquiry (1884) and the Crofters Holdings (Scotland) Act (1886), the Highlands and Islands Royal Commission recommended in 1892 that land used as deer forest or large sheep farms was suitable for subdivision into holdings for crofters and other small tenants, and for creating moderate-sized farms.

Between 1897 and 1912, the Congested Districts Board (CDB) acquired land (by agreement) for settlement and to help create new holdings for crofters on private estate land – what became the Scottish Government crofting estates (Thomson et al., 2016). Despite the small scale of early land settlement, there was some evidence of intensification of land use. For example, on the property of Syre in Sutherland (acquired in 1900 by the CDB), where the 5,000ha sheep farm was subdivided into 21 holdings, the resident population increased from 10 to 21, the cultivated area increased from two to 94ha, and livestock numbers increased almost forty-fold (Mather, 1985). Mather (writing in 1985) concluded that these actions paved the way for state intervention. However, the land settlement process at this time had inadequate funding and the powers of the CDB were very limited (Mather, 1985; Leneman, 1989).

## **2.2 20<sup>th</sup> century to the present day**

Land ownership in Scotland continues to be dominated by just over 400 private owners (0.008% of the population) who have been estimated to own 50% of privately-owned land (Hunter et al., 2014). Nonetheless, important changes in the pattern of land ownership occurred in the 20<sup>th</sup> century. These included: a reduction in the area held by larger estates; an increase in the number of small owners; and a major expansion in the extent of land owned by state and public agencies (Callander, 1987). These are summarised in Table 2.

**Table 2: Land ownership trends during the 20th century**

Period	Land ownership trend
Early 20 <sup>th</sup> century	Deteriorating economic conditions led to <b>increased number of land sales</b> and fragmentation of many large estates (Callander, 1987).
Inter-war	Continued fragmentation of large estates, particularly during the depression of the 1920s. Emergence of the trend for holdings to be sold to estate tenants leading to the <b>rise of the owner-occupier farm</b> . Owner-occupied farmland increased from 11% in 1914 to 29% in 1929 (Callander, 1987). Government purchase of private land for crofting and smallholder resettlement and for public forestry.
1950s to 1970s	High public support (grants and subsidies) for agriculture and forestry coupled with a reduction in the overall tax burden faced by landowners improved the financial position of many farms and estates. <b>Less pressure to sell off land</b> and limited the growth in owner-occupier farmland (51% in 1960 and 57% in 1970). Continued purchase of private land for forestry by the state (Callander, 1987).
1980 to 2000	Private purchase of significant areas of land for forestry until tax relief ended in the late 1980s. Growth in foreign investment in Scottish estates but also domestic period of purchase in the 1980s as a result of the stock market boom. Very large insurance claims (Piper Alpha, Exxon Valdez, San Francisco earthquake, asbestos and pollution cases) in the late 1980s and early 1990s led to many Lloyd's 'names' having to realise assets, causing <b>greater churn within the estate market</b> . Rise in area of land owned by environmental organisations. Area of farmland under owner-occupation continued to rise from 59% in 1982 to 68% in 2000 (Scottish Government, 2015).
2000 onwards	<b>Growth in community ownership</b> of land, some major purchases (often in conjunction with environmental organisations) of private estates, often where there have been issues between the local communities and landowners. Continued growth in area owned by environmental organisations, with some rationalisation of the area owned by the state. Area of farmland under owner-occupation continued to rise, to 77% of total agricultural area in 2014 (Scottish Government, 2015).

Source: Thomson et al. (2016)

Whilst the traditional estate structure survived with a fair degree of consistency between the 1870s and 1970s, fragmentation of larger estates was evident throughout the 20<sup>th</sup> century. Callander's (1987) research revealed that, between the 1870s and 1970s, the number of estates:

- over 20,000 acres (8,000ha) fell from 171 to 121 (29% decline);
- over 5,000 acres (2,000ha) fell from 576 to 546 (5% decline); and
- over 1,000 acres (4,000ha) fell from 1,758 to 1,723 (2% decline).

In the 1970s, one hundred years on from the government survey carried out in 1872, fewer than 1,500 large-scale private land owners still owned 60% of Scotland's land area (Callander, 1987). Table 3 shows the trends in the ownership of different proportions of private rural land between 1970 and 2012. It is worth noting that the Land Reform Review Group suggested that the 're-concentration' in the last 40-50 years can be partly

explained in terms of the ownership of 'good' farmland: about 75% of farms sold in 2013 were bought by other farmers. The Review Group also referred to the Danish billionaire, Anders Polvsen, who has purchased six large estates in recent years (holding around 65,000ha at the time of the Review Group's final report).

**Table 3: Private land ownership in rural Scotland 1970-2012**

Percentage of Private Rural Land	Number of Land owners		
	1970	1995	2012
10%	18	17	16
20%	51	53	49
30%	110	116	110
40%	207	220	221
50%	370	412	432
60%	1180	854	963

Source: Land Reform Review Group (2014); Wightman (2013).

Research by Hindle et al. (2014) continued to explore the pattern of land ownership, with their findings resonating closely with the estimation made by Wightman (2013) that 1,252 owners hold 67% of privately-owned rural land. Hindle et al. estimated the size and characteristics of the 'estate' sector, using available databases and other information<sup>14</sup>, reaching the conclusion that 1,125 owners hold 4.1 million hectares (70% of Scotland's rural land<sup>15</sup>). In this study, 'estates' were defined as landholdings with a range of interests that may include in-hand farming, let farms, sporting interests, forestry, residential property, workspaces, tourism and community facilities.

Table 4 shows the relative size of total landholdings under the four main types of tenure, illustrating the continued dominance of private land ownership. The growth of public land ownership during the first half of the 20<sup>th</sup> century occurred in parallel with a growth in the number of owner-occupied farms in some lowland areas, particularly during the 1920s and 1930s (Land Reform Review Group, 2014). The Scottish Government land settlement programmes continued until the 1950s, although the number of state smallholdings began to decline in the 1950s, particularly because of structural improvement policies that led to the amalgamation of smaller holdings into more viable units (Thomson et al., 2016). Mather (1985) also highlighted anecdotal evidence of the resale of holdings by purchasing tenants to neighbouring farmers. Nevertheless, land settlement in this period of history was described as a 'major episode of land reform' by the Land Reform Review Group (2014).

From 1919 until the 1970s, there was a significant increase in the amount of land managed by the Forestry Commission that now makes up Scotland's National Forest Estate (Land Reform Review Group, 2014). In the 1980s and early 1990s, the total area of land owned by charitable environmental organisations (e.g. RSPB, National Trust for Scotland) also rose by 146 per cent to reach 133,500ha (Mc Morran and Glass, 2013).

<sup>14</sup> They noted the difficulties inherent in conducting this exercise as the datasets they used are not comprehensive in geographic coverage, may have inaccuracies, and do not fully differentiate 'estates' (defined as landholdings with a range of interests) from other types of landholding.

<sup>15</sup> The total area of Scotland is 7.71 million ha, with rural land covering 94% of the total (7.247 million ha).

This was predominantly because of increasing societal environmental awareness and a growing willingness to pay for memberships of environmental organisations (Croft, 2004). Latest estimates suggest that community ownership has increased to cover 3.1% of rural land (Scottish Government, 2017b). Community-owned assets range in size from large estates to smaller assets, such as shops, industrial units and lighthouses (Mc Morran et al., 2018).

During the last 40 years, the overall proportion of public land ownership<sup>16</sup> as compared to private land ownership appears to have remained broadly similar (Wightman, 2013), which represents a comparatively small proportion of Scotland when compared to many other countries (Scottish Government, 2008). While these 'alternative' types of land ownership have made limited overall impact on the pattern of private land ownership, it is expected that they will continue to expand over time (Munton, 2009; Mc Morran, 2016).

**Table 4: Extent of rural landholdings under different types of tenure**

Type of owner	Extent of landholdings (ha)	Percentage of all rural land (7,247,400ha)
Private 'estates'	4,140,460 <sup>1</sup>	57.1%
Public bodies (including the National Forest Estate, MOD land)	914,000 <sup>2</sup>	12.6%
Community	227,526 <sup>3</sup>	3.1%
Environmental organisations (e.g. National Trust for Scotland)	182,438 <sup>4</sup>	2.5%
<b>Total</b>	<b>5,464,424</b>	<b>75.4%</b>

Sources: <sup>1</sup> Hindle et al. (2014); <sup>2</sup> LRRG (2014); <sup>3</sup> Scottish Government (2017b); <sup>4</sup> Mc Morran et al. (2013). The rural land not accounted for in the table includes farms and smaller estates that do not match the multifunctional 'estates' description by Hindle et al. (2014).

The amount of agricultural land managed by tenants declined throughout the 20<sup>th</sup> century. In 1912, over 90% of agricultural holdings and agricultural land area were tenanted. Today, over 70% of holdings and over 75% of agricultural land are managed under ownership rather than tenancies (Land Reform Review Group, 2014). In 2012, 1.65 million ha (24% of Scotland's 5.67 million ha) of agricultural land was still tenanted and there were around 16,500 tenanted holdings (Scottish Government Agricultural Statistics, 2013). The majority of these tenanted holdings were rented crofts, with about 100 small landholdings and around 6,700 agricultural tenancies accounting for the balance (Land Reform Review Group, 2014). The main reason for these changing

<sup>16</sup> Includes land owned by the Scottish Government (National Forest Estate, Crofting estates, Scottish Natural Heritage, Highlands and Islands Enterprise, Crown Estate Scotland, etc.), Local Government and the UK Government (Ministry of Defence).

statistics has been the amalgamation of farms, because of post-war public agricultural policy focusing on increased output and larger, more mechanised farms.

### 2.3 Ownerships of scale

Of the 1,125 owners that Hindle et al. (2014) estimated to own 70% of Scotland's rural land, 87 landholdings are estimated to be larger than 10,000ha (67 of these are in the Highlands), 667 are 1,000-10,000ha, and 371 are smaller than 1,000ha. Table 5 shows the *estimated* number and cumulative area of privately-owned 'estates' in rural Scotland. This table collates data collected by Hindle et al. (2014) from a range of sources, including: the Scottish Land and Estates membership database; a CKD Galbraith database of landholdings; SNH Deer Management Units; and the Who Owns Scotland<sup>17</sup> database.

**Table 5: Estimated number and area of privately-owned 'estates' in rural Scotland**

Region <sup>1</sup>		Small	Medium	Large	Total
<i>Central</i>	No. of estates <sup>2</sup>	70	140	5	215
	Size (ha)	42,344	447,299	128,266	617,910
<i>Highland</i>	No. of estates	122	366	64	552
	Size (ha)	88,211	1,356,411	1,129,938	2,574,561
<i>North East</i>	No. of estates	21	34	7	62
	Size (ha)	11,796	105,673	146,224	263,693
<i>South East</i>	No. of estates	81	64	5	150
	Size (ha)	45,443	159,256	174,793	379,492
<i>South West</i>	No. of estates	77	63	6	146
	Size (ha)	44,792	167,436	92,576	304,804
<b>Scotland</b>	<b>No. of estates</b>	<b>371</b>	<b>667</b>	<b>87</b>	<b>1,125</b>
	<b>Size (ha)</b>	<b>232,587</b>	<b>2,236,075</b>	<b>1,671,798</b>	<b>4,140,460</b>

Source: Hindle et al. (2014)

<sup>1</sup> Scottish Land and Estates regions; <sup>2</sup> Some smaller estates are excluded, and some non-estate land has been included.

There are a range of factors that influence the scale of any individual landholding, including: tax requirements; interest rates; agricultural support, etc. (for a full list, see [Annex 1](#)). In 2013, around 75% of the sales of 'good' farmland in Scotland were to other farmers (Land Reform Review Group, 2014). This increasing concentration continues Scotland's history of farm amalgamations, aimed at achieving economies of scale and improved viability. This is a trend that was also found by Thomson et al. (2016) in six

<sup>17</sup> <http://www.whoownsscotland.org.uk>

case studies where there had been considerable (re)amalgamation of farm units in the last 50 years.

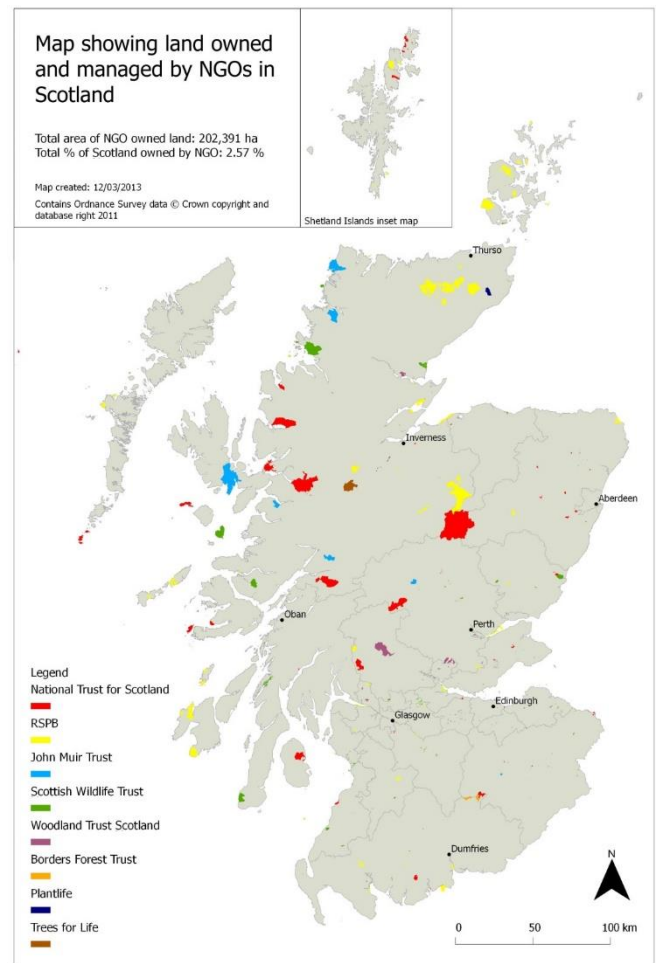
It is not only private individuals or entities that own large-scale landholdings. Peacock (2018) suggests that the ownership and management of the National Forest Estate has considerable positive support from stakeholders, and charitable environmental organisations have acquired large landholdings for conservation and recreation purposes. For example, the John Muir Trust has acquired eight properties since 1983 and the National Trust for Scotland purchased the 29,380ha Mar Lodge Estate in 1995. The Scottish Wildlife Trust, Woodland Trust and the RSPB have also expanded their landholdings considerably since the 1980s (Warren, 2009; Mc Morran et al., 2013). Research by Mc Morran et al. (2013) calculated the total area of land under this type of ownership (or managed under an agreement<sup>18</sup>) at 207,865ha across 396 sites. These sites include 31.5% of all land in Scotland designated as National Nature Reserve (NNR) (*ibid.*).

While charitable environmental organisations continue to acquire and manage land in Scotland through direct purchase, gifts, legacies and other means, there has been a general decline in the number of acquisitions in recent years (Mc Morran, 2016).

## 2.4 Continuity of ownership and private owners' motivations

### 2.4.1 Continuity of ownership

The ownership and structure of Scotland's private rural estates shows a degree of continuity across the centuries. It is widely documented that there is a long-term pattern of low turnover in the estate land market, which is 'unlikely to change in the near future' (e.g. Thomson et al., 2016, p.19). In 2012, only 23 estates were sold in Scotland, double the number that were sold in 2009 (Bell Ingram, 2013). Of the 222 private estates which took part in the Hindle et al. (2014) survey, 50% had been in ownership for up to 50



**Figure 1: Map of land owned and managed by charitable environmental organisations in Scotland**

Source: Mc Morran et al. (2013)

<sup>18</sup> This includes land leased to the organisation and/or land managed by agreement.

years, 17% between 50 and 100 years, 27% between 100 and 500 years and 5% for more than 500 years. Another survey of 84 private estates conducted by McKee et al. (2013) found that 91% of the respondents, regardless of whether they had inherited or purchased their estates, wished to pass their estate to an heir. In the research conducted by Callander (1987), a quarter of the large estates in Aberdeenshire had been in the same ownership for over 400 years, and over a third of the largest 50 had been owned for over 200 years. For most owners, ensuring that family members inherit a financially sustainable estate is a core motivation for retaining land (Hindle et al., 2014).

#### 2.4.2 Characterising private estates

Motivations for owning land vary across different types of owners and different types of holdings, making it difficult to generalise about land ownership ‘types’ (Thomson et al., 2016; Mc Morran, 2016). Estate management activities tend to be dictated by a combination of the estate’s natural resource base, the professional and personal motivations of the individual, group or organisation that owns and manages the estate, and the financial resources available.

Private landowners have been found to share a set of core values, typically corresponding to traditional management aims and objectives (especially regarding sport) (Higgins et al., 2002; MacMillan et al., 2010). Among private landowners, the persistence of the high priority assigned to sporting land uses since Victorian times explains how 43% of all privately-owned rural land in Scotland is held in sporting estates, with concentrations in the east Highlands and in Wester Ross and Sutherland (Wightman, 1996; MacMillan et al., 2010, cited in Mustin et al., 2017). Non-economic motivations can outweigh economic reasons for purchase, particularly for recreation (Petrzelka et al., 2013): when buying an estate, wealthy individuals are willing to pay large sums to gain access to the non-monetary benefits of land ownership (such as leisure or as a ‘hideaway’) (Wagstaff, 2013).

The results of the survey conducted by Higgins et al. (2002) characterised a ‘typical Highland sporting estate’ as:

“15-20,000 acres with a hunting lodge; 8.5 full-time employees; owned by a man of significant but not immense wealth who lives elsewhere and owns land elsewhere; managed as a place to enjoy hunting and family holidays, [and] costing a five-figure sum annually to balance the books” (p.5).

In a sample of estates studied by Wagstaff (2013), revenue-focussed estates often have a resident landowner and a mixture of land uses, with field sports remaining a common motivation for many new and existing owners. A typology of shooting providers developed by Mustin et al. (2017) revealed the different emphases placed on the generation of financial income from shooting activities, with those in a sample of 28 estates in the Highlands and Islands classified as ‘non-commercial shooting estates’, ‘commercial shooting estates’, and ‘diversified estates’. All types of shooting providers were found to operate on landholdings typically larger than 4,000ha, with those offering

'commercial shooting' increasing up to 20,000ha in size. The 'diversified estates', which includes non-private owners, tend to be larger than 10,000ha.

The recent national survey<sup>19</sup> carried out by Hindle et al. (2014) enabled private estates to be characterised according to a number of factors (summarised in Mc Morran, 2016):

- Estate ownership exhibits a high degree of continuity; on average estates have been in the same ownership for 122 years, 35% for over 100 years and 5% for over 500 years;
- The majority (143 respondents) self-categorised themselves as 'traditional mixed estates', with 40 self-categorising as 'agricultural estates' and 26 as 'sporting estates';
- Many mixed estates also placed considerable emphasis on sporting activities, set within a wider land use mix, including forestry, agriculture, housing provision and tourism;
- In terms of size, medium-sized estates dominated, with estate sizes remaining relative stable over the last 10 years. The 16 largest estates accounted for 42% of the total represented land area, with larger estates managing less land in-hand than smaller estates;
- A total of 26% of all land covered by the sample estates was under tenanted farms, with most estates generally dominated by low productivity or unproductive land.

#### 2.4.3 Absentee and foreign ownership

Concurrent with the growth in the number of sporting estates since the mid-19<sup>th</sup> century owned by the upper classes, often from the south of England, or 'new money' industrialists, there was a rise in the number of 'absentee' landowners (owners who are not resident on the estate), particularly in upland regions (Warren, 2009; McKee et al., 2013). Absentee land ownership is typically for recreational and/or investment purposes (Higgins et al., 2002; MacMillan et al., 2010) and most absentee landowners have not been resident landowners previously (Armstrong and Mather, 1983). Wagstaff (2013) found that social motivations (i.e. decisions that impact positively on community development) were more apparent among owners with a long-term family link and a history of the estate playing a role in determining the social outcomes in a community.

Debates about the benefits and impacts of absentee land ownership are often closely linked with discourse surrounding foreign ownership of estates in Scotland (McKee et al., 2013). Wightman (1996) found that foreign ownership quadrupled between 1970 and 1996, to around six per cent of private ownership. In 2004, 81 per cent of buyers were from the UK, 12% from mainland Europe and the remaining seven per cent from elsewhere (Strutt and Parker, 2005).

Despite recent economic downturns, uncertainty about Brexit and changes to agricultural support, demand for farmland and sporting estates in Scotland remains high, with values at record levels (Thomson et al., 2016). This reflects both an eagerness

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<sup>19</sup> 263 estates responded to this survey.



amongst existing farmers to expand when neighbouring land becomes available, and external interest seeking tax-efficient and/or lifestyle investments. In recent years, the profile of rural landowners has shifted, with family farmers and life-style buyers joined by a range of institutional investors. The relative level of engagement of these investment owners with the land varies from being direct and active to being indirect, passive and concerned solely with the extraction of financial income (Gallent et al., 2018). The promotion of renewable energy has introduced an additional dimension to ownership of rural land in Scotland, with onshore windfarms and hydroelectric schemes presenting economic opportunities for some landowners (Mc Morran, 2016).

### 3 Effects on Local Outcomes: Key Research Themes

This section reviews recent research on the effects on local community outcomes associated with large-scale and concentrated land ownership in Scotland. The narrative describes and critiques that research and is organised according to key themes that have emerged. The key themes are: socio-economic development; governance and control; and disentangling scale from other factors.

#### 3.1 Socio-economic development

##### *Economic impacts of estates*

Several studies have profiled private land ownership in 21<sup>st</sup> century Scotland: Higgins et al. (2002) conducted a questionnaire survey of 172 sporting estates in the Highlands and Islands; Kerr (2004) considered the economic activities of ten private estates of different sizes; McKee et al. (2013) surveyed 84 members of the Scottish Rural Property and Business Association (now Scottish Land and Estates, SLE) in 2008; and Hindle et al. (2014) assessed the economic contribution of private estates, based on a survey of SLE members.

The study by Kerr (2004) concluded that ‘small’ and ‘medium-sized’ estates demonstrated shared objectives of improving economic and aesthetic estate value through diversified land-based businesses, while ‘large’ estates employed a much greater number of people and had a larger commercial focus (although it should be noted that this study was criticised at the time for its small sample of ten estates). Some long-term family owners and new investment owners (particularly those with environmental motivations) have also been found to make positive contributions to habitat conservation, community resilience and economic development (Woolvin, 2013).

The national survey conducted by Hindle et al. (2014) found that private estates have a number of economic impacts, including job creation, direct spend in the local economy and indirect economic impacts. Estates generate direct income from a range of sources (see Table 6 for a summary of the income generated on the 263 estates that responded to the survey). Agricultural income accounts for the highest proportion of direct income to the estate (34.9%), followed by residential accommodation (12.6%), agricultural tenancies (9.3%), forestry (7.9%), sporting land uses (7.7%), heritage (5.2%) and tourism accommodation (4.3%).

Income from public support payments and grants was found to be an important component for some sectors, accounting for 28% of agricultural income and 80% of conservation income. Total direct income across the sample responding to the Hindle et al. (2014) survey amounted to nearly £162 million, or an average per hectare income of £129. The smaller estates generated a larger per hectare income on average.

**Table 6: Direct income generated by activities on private estates responding to survey by Hindle et al. (2014) – 263 respondents**

Sector	Very small*	Small	Medium	Large	Very large	Total	Sectoral importance
	£						
Agriculture	636,201	15,677,545	18,137,009	13,185,323	8,864,906	<b>56,500,985</b>	34.9%
Residential accommodation	195,160	2,737,114	7,774,572	5,203,996	4,474,412	<b>20,385,254</b>	12.6%
Agricultural tenancy	51,355	845,795	5,079,590	4,987,454	4,409,397	<b>15,010,572</b>	9.3%
Forestry	76,000	1,060,323	4,987,454	2,709,178	3,989,841	<b>12,822,795</b>	7.9%
Sporting	4,275	899,172	4,843,719	1,813,465	4,859,985	<b>8,353,588</b>	7.7%
Heritage		3,237,300	1,354,868	980,500	2,780,920	<b>8,353,588</b>	5.2%
Tourism accommodation	64,488	731,120	2,163,255	921,500	3,115,291	<b>6,995,654</b>	4.3%
Renewables	84,500	649,550	2,381,972	1,373,477	857,000	<b>5,346,499</b>	3.3%
Business	75,900	964,810	2,431,618	1,038,574	669,520	<b>5,180,422</b>	3.2%
Retail		92,000	1,311,410	827,000	2,551,000	<b>4,781,410</b>	3.0%
Minerals and Quarrying		653,000	678,686	1,269,269	718,500	<b>3,319,505</b>	2.0%
Conservation		471,468	833,895	524,199	994,900	<b>2,824,462</b>	1.7%
Food and beverage		746,000	611,000	340,500	352,000	<b>2,049,500</b>	1.3%
Sports and recreation		155,180	705,815	162,384	693,950	<b>1,717,329</b>	1.1%
Other activities <sup>†</sup>		656,590	1,940,336	585,000	871,391	<b>4,268,827</b>	2.7%
<b>Total (£)</b>	<b>1,282,879</b>	<b>29,487,967</b>	<b>55,538,199</b>	<b>35,331,300</b>	<b>40,337,073</b>	<b>161,977,418</b>	
<b>Total per hectare (£)</b>	<b>1,036</b>	<b>827</b>	<b>133</b>	<b>133</b>	<b>76</b>	<b>129</b>	

Source: Hindle et al. (2014)

\*Estates were grouped according to size: very small (<100ha); small (100-1,000ha); medium (1,000-10,000ha); large (10,000-20,000ha); very large (20,000ha+).

<sup>†</sup>Income sources in the 'other' category include fish farms, professional services, manufacturing, added value and horticulture.

The amount of direct expenditure on estates in the national survey conducted by Hindle et al. (2014) was recorded by sector and separated into four broad categories: inputs, investment, marketing and staff costs (see Table 7). Agriculture represented the most substantial area of spend, followed by accommodation and sporting land uses. Traditional land uses required the highest spending on inputs, with accommodation requiring the greatest investment and the highest staffing costs occurring in agriculture, heritage and sporting. Employment on the estates included in the national survey accounted for 1,965 FTE jobs, with the largest number employed in tourism (522 FTEs), administration (394 FTEs) and sporting land uses (366 FTEs).

Most of the direct expenditure across all sectors (and include staffing costs) was spent in the local area. In the responses to the survey, landowners were generally found to be

confident that income and spend would be maintained, with the majority indicating that investment levels would remain similar or increase in the future.

**Table 7: Direct expenditure by sector and spending categories on private estates responding to survey by Hindle et al. (2014) – 263 respondents**

Business sector	Inputs	Investment and repairs	Sales and marketing	Staff costs	Total expenditure
	£				
Agriculture	22,231,328	6,642,259	1,120,076	12,547,346	42,541,009
Residential accommodation	994,270	11,700,232	218,561	4,053,379	16,966,442
Sporting	6,201,822	2,954,003	298,153	7,429,426	16,883,404
Heritage		3,083,211	694,779	9,872,469	13,650,459
Forestry	4,995,358	2,159,649	177,064	3,547,956	10,880,027
Agricultural tenancies		6,675,619		3,552,440	10,228,059
Other activities	3,388,589	4,474,472		170,921	8,033,982
Renewables		4,976,636		2,637,196	7,613,832
Tourism accommodation		1,916,933	421,055	3,697,522	6,035,510
Sports and recreation		903,375	714,660	3,966,381	5,584,416
Conservation	2,068,951	504,500		1,635,473	4,208,924
Business		814,123	802,224	1,645,440	3,261,787
<b>Totals (£)</b>	<b>39,880,318</b>	<b>46,805,012</b>	<b>4,446,572</b>	<b>54,755,949</b>	<b>145,887,851</b>

Source: Hindle et al. (2014)

Hindle et al. (2014) also calculated the indirect economic impacts of the direct expenditure of the private estates that were included in the survey sample. Like the income generated by estates, per hectare expenditure impacts were found to be higher on smaller landholdings, with very large estates (20,000ha+) generating an impact of £37 per hectare, relative to £806 for very small landholdings (<100ha) and £369 per hectare on small landholdings (100-1,000ha).

By scaling the results of the survey sample to the entire membership of Scottish Land and Estates (SLE)<sup>20</sup>, Hindle et al. (2014) estimated that the combined direct and indirect

<sup>20</sup> SLE members include a large proportion of the total population of estates in Scotland.

(non-staff) expenditure of private estates contributes £290 million per annum to the Scottish economy (£127 per hectare). They also estimated that SLE members spend an additional £99.7 million directly on staff, which was estimated as a contribution of £248 million (£109 per hectare) to the Scottish economy. Aggregating the employment figures to the whole membership of SLE produced an estimate of 5,232 FTE jobs directly reliant on the landowning membership, with 8,114 FTE jobs reliant on the land area owned by SLE members.

Research has also considered the economic impact of other types of land ownership. For example, Mc Morran et al. (2013) calculated that Scotland's landowning charitable environmental organisations spent an average of £181 per hectare in 2012<sup>21</sup>. Collectively, these organisations employed 1,355 FTEs in 2012, of which 742 (55%) are employed in posts relating to site management. Not all these organisations have on-site staff and the numbers employed in site management varies considerably. This has been the reason for some criticisms of this type of landowner when communities do not feel they can engage effectively with the organisation and influence their land use decisions (e.g. Mitchell, 1999; Holdgate, 2003).

### 3.1.1 Social impacts

The land use decisions made by landowners can have positive and negative impacts on communities, particularly through the provision of housing, public access and interpretation, and community facilities. A survey of landowners in the Cairngorms National Park revealed that estates provide 15% of the total housing stock in the park and facilitate new housing via plot sales (Mc Morran et al., 2014). Estates have also delivered public access initiatives (e.g. path development and restoration), provided land for community events, managed community facilities, and engaged with local communities on land use decisions.

A dozen estates in the Hindle et al. (2014) national survey had supported community energy projects, and 39 have provided community benefits via energy installations on their land. In both surveys, community development was not generally listed as an explicit objective, although landowners recognised their role in maintaining tourism and land-based employment. Formal community engagement tended to occur more on larger estates.

Research carried out on a small number of private estates suggested that there is a wide variability in the extent to which private estates become involved in community development (Woolvin, 2013). This and other research (e.g. Glass et al., 2013; McKee, 2013; McKee, 2015) has recognised that proactive, resident landowners can contribute effectively to the vibrancy of rural communities on or near the estate, particularly through employment, service provision and the development of shared plans. Work by Gallent

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<sup>21</sup> This figure can be revised to £83 per hectare if the National Trust for Scotland sites are removed from the calculation – several NTS site jobs relate to historical site management rather than land management.

(2018) also revealed that, where investors take a direct interest in an activity or area, there is greater likelihood that their values will shape local outcomes.

### 3.2 Governance and control

Scotland's private estates have been described as representing local power bases, which historically have had considerable influence on rural communities and economies (McKee et al., 2013; Mc Morran, 2016). Described as 'de facto rural planners' (MacGregor, 1988), they have a central role in land use decisions and many owners of substantial land holdings take their responsibilities to the wider society and the local community seriously and manage their land well (Land Reform Review Group, 2014). However, landowners have been criticised in some places for restricting rural development and excluding communities from decision-making processes (Wightman, 2013).

Examples of constructive relationships between landowners and communities have been found to be built on trust and the delivery of positive benefits for rural places (Gallent, 2018). However, relationships can also be characterised by distrust and suspicion, particularly in places where investment activities are 'imposed' on communities, or there is a lack of investment in rural places. For example, negative sentiments were expressed by research participants in a study by Fischer and McKee (2017). In their research in a village in an upland area in rural Scotland, they heard perspectives that described how community capacity was depleted via the gradual diminishing of community and other resources by the landowner. An illustrative example was when a tenant had moved out of a property and the house was not let out again (unless to gamekeepers or other employees of the estate), with some properties being demolished. This, combined with the leasing of farmland to non-resident graziers, was interpreted by community members as a 'systematic attempt' to depopulate the village over time.

Access to land has also been identified as a critical barrier for new entrants to agriculture in Scotland, where there has been a rapid decline in the tenanted land sector<sup>22</sup> (McKee et al., 2018). Reluctance to sell land is characteristic of both large-scale farmers and other landowners, whose land represents a significant capital asset in terms of land value and access to subsidy payments, and small-scale farms, where the rewards of selling are limited in comparison to the loss of a valued family resource that may be retained for recreational use (*ibid*).

In a study of barriers to community-based activities, Roberts and McKee (2015) found that scale of land ownership was identified by some interviewees as a factor which influences the likelihood of landowners agreeing to sell or lease land to community groups, however the pattern was unclear, and no overall trend was identified. For example, some argued that individual private owners of small landholdings are more

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<sup>22</sup> The Scottish Land Commission has noted this and it seeks to "increase access to land for those who want to farm, improve the relationships between landowners and tenant farmers, and stimulate the tenant farming sector" ([Strategic Plan](#), 2018-2021).

cautious in engaging with community land-based activities. A key issue is that whilst in many cases there may be a possibility of finding alternative land for the community activity, a lack of engagement by a single large-scale landowner in a locality can lead to disproportionate impacts.

### **3.3 Disentangling scale from other factors**

Whilst several studies have examined the characteristics of the private estate sector, the motivations of owners and the social, economic and environmental impacts of estates, these studies did not examine the cumulative impacts of different forms and scales of land ownership in detail. This makes it challenging to draw conclusions about the extent to which the size of a landholding has positive or negative impacts on local communities. The owner of a small landholding may have more people living on or near the land than the owner of a large estate, yet that owner of the smaller property has significant input into the land use decisions that affect more people.

The Land Reform Review Group (2014) noted that, in some instances, the scale or pattern of land ownership, and the decisions of landowners, can inhibit community land-based activities. There are many different types of community activities that require rights to land: housing development, community gardens, renewable energy installations, local paths. While anecdotal evidence exists about situations where communities have failed to secure property rights from existing landowners, the nature and extent of the problem remains unclear and difficult to measure. On the one hand, the evidence that is available may be biased towards negative cases (where there has been a problem) with positive cases (where community activities have gone ahead) under-reported. On the other, the presumption of landowner barriers may mean that communities do not propose (or even consider) certain land-based activities suggesting observable evidence may underestimate the scale of the issue.

The results of the national landowner survey carried out by Hindle et al. (2014) suggested that a higher proportion of estates in the large and very large size categories reported that they expect to maintain or increase their capital investment in the next few years (as compared with estates in the smaller size categories). The respondents with estates in the larger categories tended to use a lower proportion of their houses for family and staff use, were more likely to be involved in conservation management, and reported participation in a wider range of activities and business sectors than estates in the other size bands.

An in-depth study of the local impacts of differing scales of rural land ownership was conducted by Thomson et al (2016) and commissioned by Scottish Government. The researchers found that land ownership scale is one of many factors that influence the economic, social and environmental development of rural communities. Three case study pairs of parishes were studied: each pair included one parish dominated by one or more large landowners and a nearby comparator parish that had historically been dominated in a similar manner but is no longer due to the break-up (fragmentation) of ownership in that parish.

Thomson et al (2016) were unable to conclude that scale of land ownership is a significant factor in the sustainable development of communities, although research participants noted that the estate(s) in the case study parishes still had an important influence over the area(s), particularly in relation to housing development and second/holiday homes. The mix of land ownership motivations, combined with policy, economic and social factors that drive change make it complex to disentangle the effects on land ownership scale on local outcomes. However, in some case studies land ownership scale was seen as enabling owners an element of control over some outcomes (environment, land use, housing, etc.), and that ownership change and fragmentation offered opportunities to a number of existing farm tenants to develop their business further.

The parishes with fragmented ownership exhibited higher agricultural output per hectare<sup>23</sup> and higher population growth but this was not necessarily attributable to the scale of landholdings and some caution is required when interpreting the agricultural intensity findings. Other historical and current socio-economic factors played an important role in the case studies, including: regional economic growth, mechanisation, a reduction in the land-based workforce, mobility of people, housing development, tourism growth, infrastructure, communications, commuters, second homes, ageing populations, improved standards of living, and so on. In the context of housing, while choices made by land owners were found to influence the availability of land for housing development, local and national policies (e.g. right-to-buy policy for local authority housing, planning permission) also played important roles. In all case studies, the sale of former estate housing and sale of buildings for conversion to housing or industrial development was seen as an important driver of change. It is important to note that crofting and community ownership were not within the remit of this study, which excluded most areas in the Highlands and Islands where negative impacts related to scale and concentration of land ownership have been widely reported.

Thomson et al (2016) found that the accessibility of urban areas played an important role in the types of change faced by communities. For example, proximity to urban areas had generally positive influences on employment opportunities, demography and housing development, although urban-based economic development and centralisation of public services had also led to a general lack of industry and small businesses within those case studies, as well as the decline in local shops, trades and service provision over time, due to improved population mobility and internet shopping. The more remote case studies had experienced less population growth, higher proportions of employment in land-based industries, a growing reliance on tourism and higher proportions of second and holiday homes, which undermines the ability of rural workers to reside locally.

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<sup>23</sup> Using 'Standard Output' as a measure: the estimated farm-gate worth of crops and animals without taking any account of the costs incurred in production.



## 4 Insights from Other Countries

This section briefly reviews research and policy discourse in relation to the effects of land concentration in other countries. A key concern in Europe is the concentration of farmland, which has implications for access to farmland for small-scale and younger farmers. Further afield, concerns regarding the negative impacts of land concentration on economic development, food security, education and housing provision have received academic scrutiny.

### 4.1 Land concentration in Europe

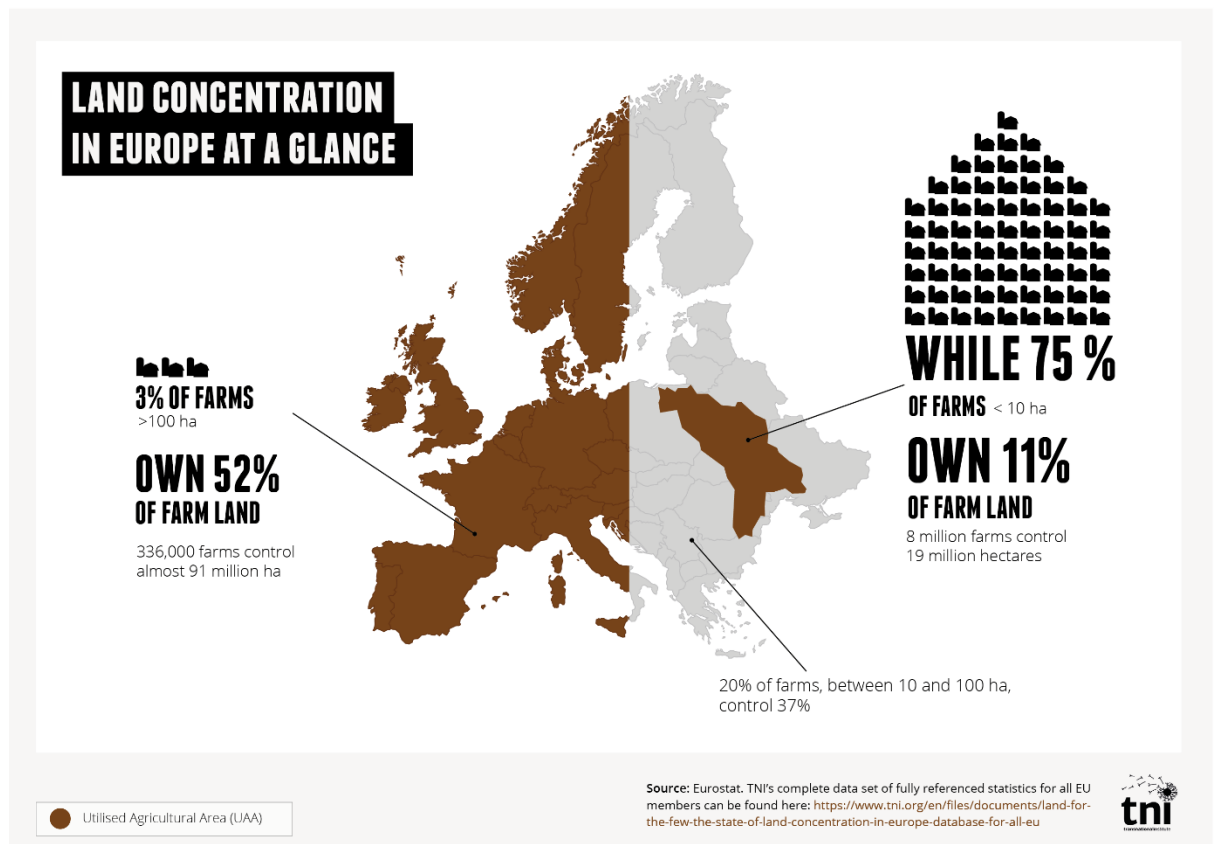
The concentrated pattern of land ownership in rural Scotland is regularly described as unique in Europe (e.g. McKee et al., 2013). Constitutional, legal, political and social reforms have led to changes in patterns of land ownership in Europe. Despite an overall trend towards smaller landholdings in some countries (Pollock, 2015), concerns in EU Member States about concentration and speculation (purchasing real estate with the hope that the price will increase) of farmland have recently gained a higher profile on the political agenda.

Ownership of agricultural land is becoming increasingly concentrated in Europe, with one per cent of agricultural businesses controlling 20% of agricultural land in the EU and three per cent controlling 52% (see Figure 2). Conversely, 80% of agricultural businesses control only 14.5% of agricultural land (European Economic and Social Committee, 2015; Kay et al., 2015). This creates significant barriers to access to land which have been found to prevent young and small-scale farmers from accessing land, or retaining access to their land (Sandwell, 2016).

van Vliet et al (2015) have observed that enjoyment of a rural lifestyle is a factor in investment decisions across Europe. 'Lifestyle farmers' seem to be part of a broader rural investment group (which also includes those buying residential property) but which, given the interplay between structural and personal motives, can be difficult to identify. Lifestyle can be claimed as a key investment factor when capital return and revenue (and tax efficiency) remain principal drivers.

Land concentration in Europe is driven by various factors. First, although concerns around foreign investments in agricultural land are not new, a recent rise in foreign investment in farmland has been noted in some Member States. Relatively low land prices in Eastern European countries as compared to Western European Member States have been a major incentive for investors to acquire farmland in these countries (Kay, 2016b). This raises concerns in countries with a long history of small-scale farming and the associated culture. For example, concentration and amalgamation of agricultural land into larger farms in south-eastern Romania has led to several negative impacts in relation to: loss of local control of land and buildings; intensified agriculture with greater use of fertilisers and pesticides; weaker agricultural labour rights; and reduced economic vitality (where smaller scale family farms have provided this 'vitality' in the past) (Popovici et al, 2018).

Figure 2: Land concentration in Europe infographic



Source: Kay (2016a)

Second, smaller holdings are increasingly unable to compete with large farms, partly because of the changing nature of the Common Agricultural Policy (CAP), which still privileges 'elite' large holdings (van der Ploeg et al., 2015). As a result, small farms become weaker and elite large farms become stronger and more able to compete in markets, because they are more efficient in capturing subsidies. For example, in Germany, the land area covered by farms of 50 hectares or more grew from 9.2 million hectares in 1990 to 12.6 million hectares in 2007 (*ibid.*).

Political debate about foreign investment in European farmland relates mainly to the potential limits on access to land for local farmers, as well as the notion that that cultivable land has become vulnerable to speculators or unscrupulous investors (European Commission, 2017). Other concerns about land concentration, speculation and large-scale land deals tend to relate to the negative impacts on food security, employment, the environment, soil quality and rural development (Franco and Borrás Jr., 2013; Loughrey et al., 2016; Heubuch, 2016). There is also a lack of transparency around land deals in several EU countries, with discrepancies between official records and local realities suggesting that control over land does not occur through routine functioning of land markets (Kay, 2016b).

With this knowledge - and recognising that access to land is consistently found to be the largest barrier to new entrants farming across Europe (Sutherland et al., 2017; Zagata

et al., 2017) - the European Parliament adopted a resolution on the state of play of farmland concentration in the EU in April 2017<sup>24</sup>.

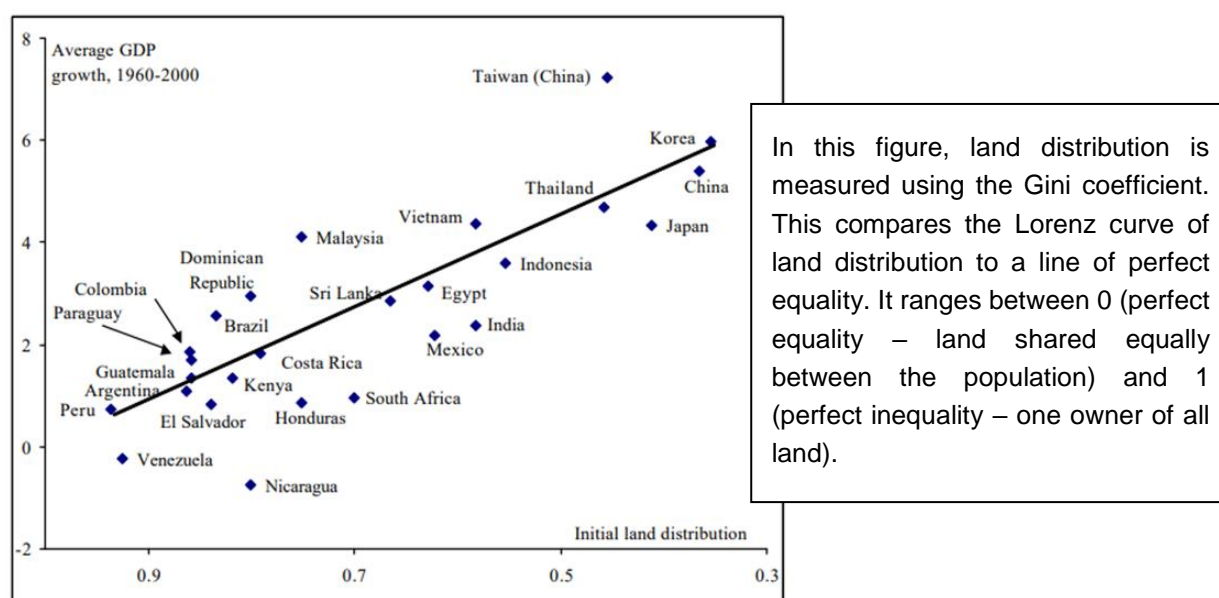
## 4.2 Land concentration beyond Europe

Beyond Europe, several studies have documented the negative impacts of concentrated private land ownership and large-scale private land acquisitions on economic development, food security, education and housing provision (e.g. Falkinger and Grossman, 2013; Davis et al., 2014; Faguet et al., 2016). Large-scale acquisitions are often described as 'land grabs' in developing countries where land is bought for investment purposes by corporations (Land Reform Review Group, 2014).

Work carried out by the Global Network for the Right to Food and Nutrition (GNRFN, 2016) defines land concentration as the 'structural repartition of agricultural holdings within a given territory, reflecting the extent of farmland controlled by small or large agricultural holdings'. The unequal distribution of land has been used by the GNRFN as an indicator to assess the extent of access to natural resources by the population. They argue that high levels of land concentration are associated with increased social inequalities, rural poverty and exodus, and skewed development policies towards a large-scale export model. Conversely, they argue that a decrease in land concentration usually indicates improvements in the overall socio-economic conditions of a country.

Deininger (2000), in work carried out for the World Bank analysed the impact of unequal land ownership distribution in the 1960s on economic growth during the subsequent four decades in several developing countries. Figure 3 shows a lower average GDP growth in countries with unequal land distribution.

**Figure 3: Land distribution and economic growth in selected developing countries**



Source: Deininger (2004)<sup>25</sup>

<sup>24</sup> [European Parliament Committee on Agriculture and Rural Development](#), 30 March 2017.

<sup>25</sup> Calculations based on World Bank data and Deininger and Squire (1998).

A longitudinal analysis of human development in countries that are similar in some respects but different in terms of land concentration has revealed the social and economic costs of 'inappropriate land institutions'. Work carried out for the World Bank by Deininger (2004) compared Colombia and Costa Rica on the one hand, with El Salvador and Guatemala on the other. Even though these four countries share a common colonial history, language, religion, climate, topography, etc., they reacted in very different ways to the coffee 'boom' of the 19<sup>th</sup> century (see Box 1).

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**Box 1: Analysis of development in Colombia and Costa Rica, as compared to El Salvador and Guatemala**

In El Salvador and Guatemala, large landowners depended on a repressive labour regime to remain economically viable, and the boom led to land expropriation and the significant concentration of land in the possession of a few, to the detriment especially of indigenous communities. Landlords held a monopsony on power in the labour market, which allowed them to pay their workers the bare subsistence minimum, thereby eliminating any incentives for human capital accumulation.

By contrast, in Colombia and Costa Rica, which are characterised by small-scale landholdings, elites depended on trade rather than on large-scale agriculture, and the coffee boom led to the emergence of a smallholder coffee economy.

Because of these distinct reactions to the boom, literacy rates, as well as other indicators of socio-economic development, have differed sharply between the two sets of countries since the late 19<sup>th</sup> century. Perhaps most revealing, the establishment of democracy occurred about 40 years later in the two countries where large landlords exercised such dominance.

*Source: Deininger (2004)*

## 5 Power and Participation: An Analytical Framework

The Scottish Land Commission's call for evidence asked respondents to contribute examples and experience of positive and negative issues related to concentrated land ownership. In the research reviewed above, from both Scottish and international perspectives, two important themes emerged: *power* and *participation* in relation to land ownership and land use decision-making. These themes provide a 'frame' for analysing the responses submitted to the call for evidence and emphasise the gap in our understanding of the contemporary 'lived experiences' of concentration land ownership.

### 5.1 Power

Internationally, rights over land and the concentration of ownership observed historically across the world can be conceptualised at outgrowths of power relationships. The oft-voiced concerns regarding Scotland's rural land ownership pattern centre on the high level of power that landowners hold when making decisions about how rural assets used and how these decisions affect communities. As MacGregor and Stockdale (1994) explained, private landowners in Scotland play a central role in rural planning, even if this role is an informal one. It is for this reason that the accountability of private landowners in Scotland has been found to be a critical factor in overcoming barriers to community land-based activities (e.g. McKee and Roberts, 2016).

Garrod et al. (2006) suggested that changes to countryside 'capital' (or individual assets therein) will impact positively or negatively on local economic welfare. This stresses the link between control of rural assets and the welfare of people and communities, suggesting that clear actions can be taken to preserve or enhance the value of rural assets by those who either control or influence over them (Gallent et al., 2018). The thinking here is that owners of rural land assets should unlock the 'added value' of local qualities and distinctiveness, above and beyond simply engaging local labour in productive activity, to create win-wins for both investors and communities. This approach was also taken by Glass et al. (2013) who recognised the potential for landowners to deliver positive local outcomes as a result of the control they have over management decisions, and Adams (2013) who pointed out the need to promote a 'discourse of property responsibility' in urban areas.

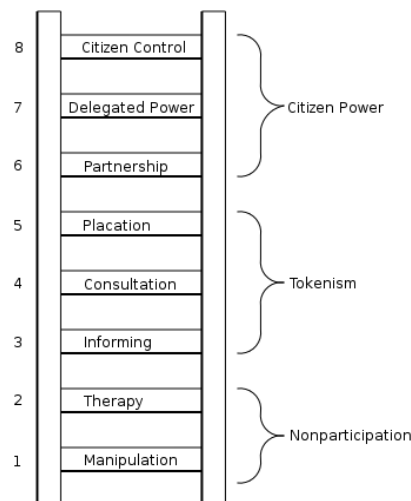
Linked with the general concept of the power that landowners hold is the more specific concern related to the negative consequences of 'monopoly power' (e.g. Peacock, 2018). While the concept of monopoly is usually associated with markets for consumer goods and services, it can, in principle, equally apply to land, particularly in a scenario where the landowner controls access to an area's resources/assets.

## 5.2 Participation

Where land is owned by either a single individual or organisation, or a very small number of individuals or organisations (regardless of the scale of the holding), the ability for communities to participate in decisions regarding how the aforementioned power is exerted is also a concern highlighted in the numerous studies reviewed above.

It is difficult to separate a discussion about participation from that of power as the two are closely linked, although there has been a marked shift in thinking in recent research and policy towards the advocacy and support of engagement and partnership-working between landowners and communities to resolve power-related barriers to the delivery of local sustainable development outcomes and empower communities (e.g. Glass et al., 2012; Roberts and McKee, 2015; McKee and Roberts, 2016). Underlying a lot of this work is the 'ladder of participation' shown in Figure 2.1, which sets out the different levels at which participation and engagement can take place.

**Figure 4: Arnstein's Ladder of Participation**



*Source: Arnstein (1969)*

The inherent aspiration is that participation should take place in a manner that would sit at levels six to eight of the ladder, demonstrating two-way communication and an amount of power and control resting with the affected community. The ladder is also useful for exposing and challenging existing power relations (an approach advocated by Allmendinger, 2009). Power imbalances have been found to affect both landowners and communities during engagement processes – disempowerment on the part of either party can inhibit dialogue when working towards enabling community land-based activities (Glass et al., 2012; McKee & Roberts, 2016).

The growing emphasis in the land reform legislation on community engagement and empowerment in decision-making related to land, as well as in the Community Empowerment (Scotland) Act 2015 and Scotland's revised Land Use Strategy, places increasing pressure on landowners of all types to deliver a wide range of public benefits (Mc Morran, 2016). Most recently, the Scottish Government Guidance on Engaging

Communities in Decisions Relating to Land<sup>26</sup>, emphasise the importance of two-way communication, through the greater collaboration and engagement that Scottish Ministers *expect* between those who make decisions about land and the local communities that are affected by those decisions.

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<sup>26</sup> <https://beta.gov.scot/publications/guidance-engaging-communities-decisions-relating-land/>

## 6 Summary

This review has examined research related to land ownership concentration in Scotland and in other countries. It has highlighted a number of key themes that have attracted the attention of academics and other commentators, both recently and in previous decades. The benefits and impacts of land ownership concentration on socio-economic development, local governance, and control of resources/assets have been considered in some depth. Central to the examination of each of these themes is the power that a landowner holds over local land use decisions and the extent to which local communities and other stakeholders can influence/inform those decisions. While the research reviewed in this report considers empirical evidence from number of regional and local case studies, there remains potential to explore the links between land ownership concentration (and scale of landholdings) in more depth, across the whole of Scotland. It is this gap in the research that the Scottish Land Commission call for evidence seeks to address.



## References

- Adams, D. 1994. *Urban planning and the development process*. Routledge.
- Adams, D. 2013. [The potential for urban land reform in Scotland](#). In: AESOP-ACSP Joint Congress, 15-19 July 2013, Dublin, Ireland.
- Allmendinger, P. 2009. *Planning Theory*. Second Edition, Palgrave MacMillan, China.
- Armstrong, A.S. and Mather, A.S. 1983. *Land Ownership and Land Use in the Scottish Highlands*. Department of Geography, University of Aberdeen.
- Bell Ingram 2013. Annual Review.
- Cahill, K. 2001. *Who Owns Britain: the hidden facts behind landownership in the UK and Ireland*. Canongate, Edinburgh.
- Callander, R.F. 1987. *A Pattern of Landownership in Scotland*. Haughend, 155pp.
- Combe, M. 2018. Community Rights in Scots Property Law. In: Xu, T. & Clarke, A. (eds.) [Legal Strategies for the Development and Protection of Communal Property](#). Proceedings of the British Academy, 216, pp. 79-101.
- Croft, T.A. 2004. [Conservation charity land ownership in Scotland](#). *Scottish Geographical Journal*, 117, 139-156.
- Davis, K., D'Odorico, P. and Rulli, M. 2014. [Land grabbing: a preliminary quantification of economic impacts on rural livelihoods](#). *Population Environment*, 36, 180-192.
- Deininger, K. and L. Squire. 1998. [New Ways of Looking at Old Issues: Inequality and Growth](#). *Journal of Development Economics*, 57, 2, 259–87.
- Deininger, K. 2004. [Land policies and land reform](#). World Bank, Washington.
- Devine, T. 1995. *Exploring the Scottish Past: Themes in the History of Scottish Society*. Tuckwell Press, East Linton. 271pp.
- European Commission 2017. [Commission Interpretative Communication on the Acquisition of Farmland and European Union Law \(2017/C 350/05\)](#). Official Journal of the European Union, C350/5.
- European Economic and Social Committee 2015. [Land grabbing – a warning for Europe and a threat to family farming](#). Opinion of the European Economic and Social Committee. Brussels, 21 January 2015.
- Faguet, J.P., Sanchez, F. and Villaveces, M.J. 2016. [The paradox of land reform, inequality and local development in Colombia](#). The London School of Economics and Political Science, London, UK. (Unpublished).
- Falkinger, J. and Grossman, V. 2013. [Oligarchic land ownership, entrepreneurship, and economic development](#). *Journal of Development Economics*, 101, 206-215.
- Fischer, A. and McKee, A. 2017. [A question of capacities? Community resilience and empowerment between assets, abilities and relationships](#). *Journal of Rural Studies*, 54, 187-197.

- Franco, J. and Borrás Jr. (eds.) 2013. [Land concentration, land grabbing and people's struggles in Europe](#). Transnational Institute, Netherlands.
- Gallent, N., Hamiduddin, I., Juntti, M., Livingstone, N. and Stirling, P. 2018. [New money in rural areas. Assessing the impacts of investment in rural land assets](#). Report to the Royal Institution of Chartered Surveyors.
- Garrod, B., Wornell, R. and Youell, R. (2006) Re-conceptualising rural resources as countryside capita: The case of rural tourism. *Journal of Rural Studies*, 22, 117-128.
- Glass, J.H., McKee, A. and Mc Morran, R. 2012. [Working Together for Sustainable Estate Communities: exploring the potential of collaborative initiatives between privately-owned estates, communities and other partners](#). Centre for Mountain Studies, Perth College, University of the Highlands and Islands.
- Glass, J.H., Scott, A. and Price, M.F. 2013. [The power of the process: Co-producing a sustainability assessment toolkit for upland estate management in Scotland](#). *Land Use Policy*, 30(1), 254-265.
- Glass, J., Bryce, R., Combe, M., Hutchison, N.E., Price, M.F., Schulz, L. and Valero, D. 2018. [Research on interventions to manage land markets and limit the concentration of land ownership elsewhere in the world](#). Scottish Land Commission, Commissioned Report No 001.
- Global Network for the Right to Food and Nutrition 2016. [Degree of land concentration](#). Accessed 02.10.18.
- Heubuch, M. 2016. [Land Rush: The Sellout of Europe's Farmland](#). The Greens/European Free Alliance.
- Higgins, P., Wightman, A. and MacMillan, D. 2002. [Sporting estates and recreational land use in the Highlands and Islands of Scotland](#). Report for Economic and Social Research Council.
- Hindle, R., Thomson, S., Skerratt, S., McMorran, R. and Onea, P. 2014. [Economic Contribution of Estates in Scotland: An Economic Assessment for Scottish Land & Estates](#). Final report.
- Holdgate, M. 2003. The human stake in nature. *ECOS*, 24(1), 57-62.
- Hunter, J., Peacock, P., Wightman, A. and Foxley, M. 2014. [432:50 – Towards a comprehensive land reform agenda for Scotland](#). A Briefing Paper for the House of Commons Scottish Affairs Committee.
- Kay, S. 2016a. [Land concentration in Europe](#). Conference presentation: Access to Land for Farmers in the EU. Transnational Institute. Brussels, 7 December 2016.
- Kay, S. 2016b. [Land grabbing and land concentration in Europe](#). A Research Brief. Transnational Institute for Hands on the Land.
- Kay, S., Peuch, J. and Franco, J. 2015. [Extent of Farmland Grabbing in the EU](#). Study for Directorate-General for Internal Policies, Agriculture and Rural Development.

- Kerr, G. 2004. The contribution and socio-economic role of Scottish estates: summary report. Scottish Agricultural College, Penicuik.
- Land Reform Review Group. 2014. [The Land of Scotland and the Common Good](#). Final report.
- Leneman, L. 1989. [Land Settlement in Scotland after World War I. The Agricultural History Review](#), 37(1), 52-64.
- Lorimer, H. 2000. Guns, Game and the Grandee: The Cultural Politics of Deerstalking in the Scottish Highlands. *Cultural Geographies*, 7 (4), 403-431.
- Loughrey, J., Donnellan, T. and Lennon, J. 2016. [The Inequality of Farmland Size in Western Europe](#). Contribution at the 90th Annual Conference of the Agricultural Economics Society, University of Warwick, 4-6 April 2016.
- MacDonald, F. 1998. [Viewing Highland Scotland: ideology, representation and the 'natural heritage'](#). *Area*, 30, 237-244.
- MacGregor, B.D. 1988. [Owner motivation and land use on landed estates in the North-west Highlands of Scotland](#). *Journal of Rural Studies*, 4(4), 389-404.
- MacGregor, B. & Stockdale, A. 1994. [Land Use Change on Scottish Highland Estates](#). *Journal of Rural Studies*, 3, 301-309.
- Mackenzie, A.F.D. 1998. [The Cheviot, The Stag...and the White, White Rock? Community, identity and environmental threat on the Isle of Harris](#). *Environment and Planning D: Society and Space*, 16, 509-532.
- MacMillan, D.C., Leitch, K., Wightman, A. and Higgins, P. 2010. [The Management and Role of Highland Sporting Estates in the Early Twenty-First Century: The Owner's View of a Unique but Contested Form of Land Use](#). *Scottish Geographical Journal*, 126, 1, 24-40.
- Mc Morran, R. and Glass, J. 2013. Buying Nature. In: Glass, J., Price, M.F., Warren, C. & Scott, A. (eds.). [Lairds, Land and Sustainability: Scottish Perspectives on Upland Management](#). Edinburgh University Press, Chapter 7.
- Mc Morran, R., Glass, J. and Frankland, D. 2013. [Evidence for Scotland's Land Reform Policy Review \(2012-2014\) - The socioeconomic benefits of the ownership and management of land by environmental non-governmental organisations \(NGOs\)](#). Commissioned report prepared by the Centre for Mountain Studies, Perth College UHI.
- Mc Morran, R., Thomson, S., Hindle, R. and Deary, H. 2014. [The economic, social and environmental contribution of landowners in the Cairngorms National Park](#). Cairngorms National Park Authority and Scottish Land and Estates.
- Mc Morran, R. 2016. [Socio-economic and environmental outcomes from different landownership models in rural Scotland](#). In: Skerratt, S. et al. (2016). Rural Scotland in Focus. Rural Policy Centre, SRUC.

- Mc Morran, R., Lawrence, A., Glass, J., Hollingdale, J., McKee, A., Campbell, D. and Combe, M. 2018. [Review of the effectiveness of current community ownership mechanisms and of options for supporting the expansion of community ownership in Scotland](#). Scottish Land Commission, Commissioned Report.
- McKee, A. 2013. The laird and the community. In: Glass, J., Price, M.F., Warren, C. and Scott, A. (eds.). [Lairds, Land and Sustainability: Scottish Perspectives on Upland Management](#). Edinburgh University Press, Chapter 5.
- McKee, A. 2015. [Legitimising the Laird? Communicative Action and the role of private landowner and community engagement in rural sustainability](#). *Journal of Rural Studies*, 41: 23-36.
- McKee, A. and Roberts, D. 2016. [Good practice in overcoming barriers to community land-based activities](#). Report for the Scottish Government.
- McKee, A., Sutherland, L., Hopkins, J., Flanigan, S. and Rickett, A. 2018. [Increasing the Availability of Farmland for New Entrants to Agriculture in Scotland](#). Final report to the Scottish Land Commission. James Hutton Institute and Fresh Start Land Enterprise Centre.
- McKee, A., Warren, C., Glass, J., and Wagstaff, P. 2013. The Scottish private estate. In: Glass, J., Price, M.F., Warren, C. and Scott, A. (eds.). [Lairds, Land and Sustainability: Scottish Perspectives on Upland Management](#). Edinburgh University Press, Chapter 3.
- Mather, A.S. (1985). [The rise and fall of government-assisted land settlement in Scotland](#). *Land Use Policy*, 2(3), 217-224.
- Mitchell, I. 1999. *Isles of the West: A Hebridean Voyage*. Birlinn, 255pp.
- Munton, R. 2009. [Rural land ownership in the United Kingdom: changing patterns and future possibilities for land use](#). *Land Use Policy*, 26, S1, S54-61.
- Mustin, K., Newey, S. and Slee, B. 2017. [Towards the Construction of a Typology of Management Models of Shooting Opportunities in Scotland](#). *Scottish Geographical Journal*, 133, 3-4, 214-232.
- Orr, W. 1982. *Deer Forest, Landlords and Crofters: the Western Highlands in Victorian and Edwardian times*. John Donald, Edinburgh. 226pp.
- Peacock, P. 2018. [Land: For the many, not the few? Limitations on the Scale of Land Ownership. A discussion paper](#). Scottish Land Commission Land Lines paper. March 2018.
- Petrzelka, P., Ma, Z. and Malin, S. 2013. [The elephant in the room: Absentee landowner issues in conservation and land management](#). *Land Use Policy*, 30, 157-166.
- Pollock, S. 2015. [International Perspectives on Land Reform](#). SPICe Briefing 15/38.
- Popovici, E.A., Mitrica, B. and Mocanu, I. 2018. [Land concentration and land grabbing: implications for the socio-economic development of rural communities in south-eastern Romania](#). *Outlook on Agriculture*, 47(3), 204-213.

- Roberts, D. and McKee, A. 2015. [Exploring barriers to community land-based activities](#). Report for the Scottish Government.
- Sandwell, K. 2016. [Access to Land for Farmers in the EU: Conference Report](#). Hands on the Land Campaign/Via Campesina.
- Scottish Government 2008. [Asset Management Review](#).
- Scottish Government 2015. Abstract of Scottish Agricultural Statistics 1982 to 2014.
- Scottish Government 2017a. [Land Rights and Responsibilities Statement](#).
- Scottish Government, 2017b. [Estimate of community owned land in Scotland 2017](#).
- Strutt and Parker 2005. Scottish Estates Review. Strutt and Parker, Edinburgh.
- Sutherland, L.A., Hopkins, J., Toma, L., Barnes, A. and Matthews, K. 2017. [Adaptation, Resilience and CAP Reform: A Comparison of Crofts and Livestock Farms in Scotland](#). *Scottish Geographical Journal*, 133 (3-4), 192-213.
- Thomson, S., Moxey, A., Wightman, A., McKee, A., Miller, D., Brodie, E., Glass, J., Hopkins, J., Mathews, K., Thomson, K., McMorrán, R. and Bryce, R. 2016. [The impact of diversity of ownership scale on social, economic and environmental outcomes: Exploration and case studies](#). Final report to Scottish Government (CR/2014/19).
- van der Ploeg, J., Franco, J. and Borras Jr., S. 2015. [Land concentration and land grabbing in Europe: a preliminary analysis](#). *Canadian Journal of Development Studies*, 36(2), 147-162.
- van Vliet, J., de Groot, H., Rietveld, P., Peter, H. and Verburga, P. 2015. [Manifestations and underlying drivers of agricultural land use change in Europe](#). *Landscape and Urban Planning*, 133, 24–36.
- Wagstaff, P. (2013). What motivates private landowners? In: Glass, J., Price, M.F., Warren, C. and Scott, A. (eds.). [Lairds, Land and Sustainability: Scottish Perspectives on Upland Management](#). Edinburgh University Press, Chapter 4.
- Warren, C. 2009. [Managing Scotland's Environment](#). Second edition. Edinburgh University Press, Edinburgh. 237pp.
- Wightman, A. 1996. Who Owns Scotland. Edinburgh, Canongate.
- Wightman, A. 2001. Land Reform Draft Bill Part II – Community Right to Buy. Caledonia Briefing No.3. Caledonia Centre for Social Development.
- Wightman, A. 2013. [The Poor had no Lawyers: Who owns Scotland and how they got it](#). Birlinn, Edinburgh. 448 pp.
- Woolvin, M. 2013. [Family estates and rural resilience](#). Rural Policy Centre Report.
- Zagata, L., Hrabák, J., Lošták, M., Bavorová, M., Rättinger, T., Sutherland, L.A. and McKee, A. 2017. [Research for AGRÍ Committee – Young Farmers – Policy implementation after the 2013 CAP reform](#). Directorate-General for Internal Policies.

## Annex 1: Factors influencing scale of land ownership

In the study of the impact of diversity of ownership scale on economic, social and environmental outcomes, commissioned by Scottish Government in 2016, Thomson et al. identified a range of factors that influence scale of land ownership in Scotland.

**Table 8: Factors influencing scale of land ownership**

Factor	Effect on ownership scale
Inheritance tax/Death duties	Death duties led to the sale of land holdings with many ending up fragmented in the first half of the 20th century. Some neighbouring landowners may have used the opportunity to expand their existing holding.
Inheritance Tax Agricultural/Forestry Relief	Inheritance tax relief can limit the need for some owners to sell land / buildings (fragmentation) to pay tax dues.
Capital Gains Tax	Capital gains tax can reduce the gain from development sales that may reduce capital from reinvestment into land and buildings. Capital gains tax can reduce land value inflation from roll over relief.
Capital Gains Tax Rollover Relief	This means more capital gain is available for reinvestment into agriculture / forestry that can increase scale of ownership and can lead to land value inflation.
Income tax relief including Sideways Tax Relief	The Income Tax treatment of forestry until 1988 allowed owners effectively to switch between two bases of taxation. 'Schedule B' was most advantageous when woodland was generating revenue from timber sales as it taxed woodland income on the basis of modest annual values, whereas 'Schedule D' was more advantageous during periods of expenditure because it allowed claims for loss relief on planting and other management expenditure. The resulting losses could be set off against any other income (loss relief). This led to significant investment into forestry land purchase and plantation during the 1980s. Sideways tax relief also provides opportunity to offset profits made elsewhere against losses in agriculture (or vice versa) providing farm made profit in last five years.
Interest rates/ Alternative Investment Yields	Mid 1980s saw very high interest rates. High interest rates can restrict those borrowing money to enter the land market - especially new entrants, tenants, etc. In recent years land and estates have been marketed to investors as being high yielding assets and investors' access to large amounts of capital may have reduced the fragmentation of land holdings through the investment in whole units.
Common Agricultural Policy support (PI)	CAP payments are capitalised into land values. This means land becomes expensive and acts as a barrier to entry for non-land holders. There is a limited pool of people able to benefit from the CAP meaning there is likely to be a more limited demand for larger land areas being sold. Years of CAP receipts allow existing CAP recipients to out-bid many non-CAP recipients in purchase of and particularly if they aim to expand in order to benefit from economies of scale / scope or to provide a start in farming for children.
Forestry	Forestry grants have been in existence for considerable time and some planting grants have been particularly attractive. Large scale plantings /

Factor	Effect on ownership scale
	re-plantings can be easier to co-ordinate, have lower per unit cost / and yield greater climate change benefits. Forestry Commission purchases of land led to some fragmentation of land holdings over time (mostly pre-1970s).
Succession	Scottish succession laws do not require land to be equally split between siblings as per the Napoleonic Code and heritable and moveable property are treated differently under law (this means that if land is left under bequeath to an individual others have no claim on that yet children and spouses have a legal right to the moveable assets. Until 1964 Succession Act the law of primogeniture held and entailment (abolished fully through the Abolition of Feudal Tenure (Scotland) Act 2000) made sure landed holdings were safeguarded from fragmentation in situations of bankruptcy, insanity, etc
Divorce	Improved divorce settlement has meant there is greater likelihood of sale of asset, and fragmentation, in cases of divorce.
Gift	Gifts to family members can lead to fragmentation as parcels of land holding are split off.
Debts	Landed holdings may be sold to pay financial debts. In order to pay Lloyds insurance losses in the 1980s and 1990s many 'Names' had to sell off landed holdings to cover their share of payments (e.g. Lord Kimball sold the 19,000 hectare Altnaharra estate). Thus external debts can lead to sales of land and fragmentation.
Lotting of land holdings	Land agents will often suggest the sale of land in 'lots' to maximise potential sale value to the owner (particularly accessible / better quality holdings). By doing so sellers can access a much wider range of purchasers who may be willing under the Scottish system to bid-up the value of the 'lot' depending on their interest in it. On more sporting type properties / poorer land capability the holding may be sold in its entirety as there is greater value as a whole (maintain scale). Some owners are insistent that their land be marketed as a whole unit due to sentiment. Existing owner motivations / sentiment play an important role during the sale of land.

Source: Thomson et al. (2016)