BiGGAR Economics

# NW2045: Opportunities and Potential Development Models

A report to NW2045
March 2025

BiGGAR Economics


# Contents

# Executive Summary

North west Sutherland is facing an existential crisis but the situation is not irreversible. The area has natural strengths and existing competitive advantages that could provide the basis for renewal. Doing this will require concerted national action.

North west Sutherland (the Local Area) is locked in a spiral of social and economic decline so serious and so far advanced that it is not an exaggeration to describe it as an existential crisis. Over the past two decades the number of children living in the Local Area has already fallen by half. If current trends continue then by 2045 older people will make up 60% of the population and children will have become vanishingly scarce. Unless something changes radically in the next few years, the long-term prospects for human communities in the area seem bleak.

## Grounds for Optimism

However, there are grounds for optimism. This report shows that the Local Area has competitive advantages that could be leveraged to tackle these strategic challenges.

The wellbeing of Highland residents is consistently and significantly higher than elsewhere in Scotland, suggesting the Local Area can provide a quality of life that could be attractive to those from more urban areas looking for a lifestyle change. For this to become a reality however, prospective new residents would need to be assured they would be able to sustain the standard of living they aspire to, which would require both the means to earn a decent living and somewhere to live.

None of the economic opportunities currently facing the region are likely to generate activity of a transformational scale. Therefore, a significant increase in remote and home-based working would almost certainly be required to bring about any major shift in the population trajectory. For this to happen, coordinated action would be needed to improve broadband connectivity across the region, and ensure remote working became a realistic option for all residents. Recent technological advances suggest the cost of doing this need not be prohibitive.

## Reimagining Traditional Models

Reimagining traditional models and existing economic strengths could help mitigate the challenges faced by the region.

Crofting, a traditional way of life that has supported population retention across the Highlands and Islands for generations, is a familiar part of the local economy that

could be part of the solution. Crofting provides for a pluralistic livelihood that is particularly well adapted to fragile rural economies. Reimagining this model could enable it to support population retention in the age of remote working.

Tourism, already a major component of the local economy also has the potential to deliver greater economic benefits if ways can be found to retain more tourism expenditure in the local area. This report has pointed to examples from elsewhere of that could provide inspiration for how to achieve this.

## Harnessing the Potential of Natural Capital

A distinctive feature of the Local Area is its abundant natural capital. Finding ways of harnessing this to deliver benefits for local communities is potentially a major opportunity.

The development of onshore wind presents one of the most promising opportunities in the region. Existing projects in the Local Area are already generating nearly £0.9 million/year in community benefit funding for local communities. Additionally, nearby projects currently in development could contribute a further £4.8 million. With effective stewardship, this funding could be used to leverage additional resources, potentially bringing the total community investment available to £6.2 million.

This funding could be used to deliver projects and initiatives that could mitigate some of the harmful effects associated with population decline and help address wider regional strategic challenges. There are various models from other parts of the Highlands that could potentially be replicated in the Local Area. Realising the potential of these opportunities would almost certainly require a professional and well-resourced community body with the capacity to engage with regional delivery partners on behalf of local communities. Experience from elsewhere suggests community benefit funds can be used to help to build this capacity.

Opportunities also exist to harness the Local Area's wider natural capital assets as a source of income. The NW2045 Regional Land Use Partnership may be a vehicle that could help achieve this. Achieving this is likely to require a pragmatic approach that balances the short-term need to secure financial returns with the longer-term aspiration to do this in a holistic and novel way.

## Need for National Action

This report points to several opportunities that could help address the socio-economic challenges facing the Local Area. However, the challenges are so severe and so advanced that even under optimistic assumptions local action alone is only likely to delay the inevitable. It could help but is unlikely to change the trajectory.

Despite the seriousness of the situation, it is not yet irreversible. The Local Area has attributes that could make it attractive for inward migrants and local people looking to return to the area and the technology exists for this to be a realistic proposition.

# 1. Introduction

BiGGAR Economics was commissioned in early 2025 to help identify opportunities to address key socio-economic challenges in the NW2045 Local Area.

## 1.1 Study Purpose and Objectives

BiGGAR Economics was commissioned[1] in 2025 by NW2045 to complete two studies. The purpose of the first study, "NW2045: Socio-Economic Profile", was to develop a socio-economic profile for the Local Area, identifying trends and key themes relating to population, communities, and the local economy, compared to those of Highland and Scotland as a whole.

The purpose of the second study, and the focus of this report, is to identify the scale of the opportunity and a range of potential activities and comparable models that could be used to address the issues identified in the first phase of work.

## 1.2 NW2045

NW2045 is a group of local organisations from across the north west Highlands that is working together to create the critical mass needed to improve socio-economic prospects for the region. The group has published a vision for the area that aims to

- make the north west highlands an attractive place to live and work;
- build toward a diverse and sustainable local economy; and
- empower communities to shape their own future.

To do this the group has agreed six shared goals to turn this vision into a reality:

- affordable housing for young people and families
- high speed broadband access for all
- rural hubs to support businesses, homeworking and delivery of services
- a healthy food scheme based on local produce
- a new Regional Land Use Partnership to support green economic recovery
- new forms of local democracy to give communities a greater role in decision-making.

It is intended that this work will help inform NW2045 decisions about how to progress these goals.

---

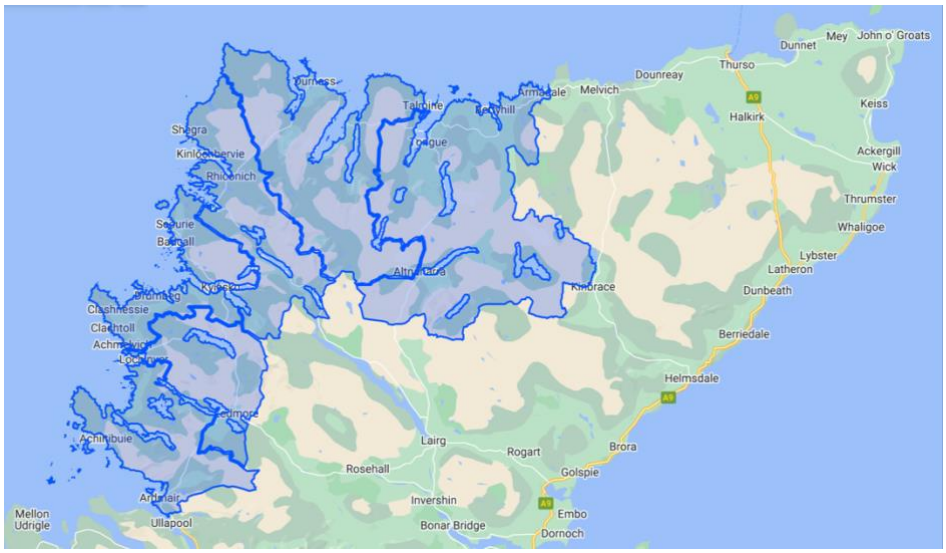
[1] These studies were funded using funding from the Scottish Government's Addressing Depopulation Fund.

### 1.2.1 Defining the Local Area

The Local Area is a rural and sparsely populated region in the North West mainland of Highland, covering almost 3,000km$^2$ with a population of around 3,200 people. The Local Area was defined as the following data zones:

- Ross and Cromarty North West – 04;
- Sutherland North and West – 02;
- Sutherland North and West – 03;
- Sutherland North and West – 04;
- Sutherland North and West – 05; and
- Sutherland North and West – 06.

**Figure 1-1 Location of NW2045 Study Area**




Source: Google Maps (2025), ONS (2023) Business Register and Employment Survey

## 1.3 Socio-Economic Profile of NW2045

The analysis undertaken for the first phase of work, found the most important challenge facing the Local Area is depopulation and an ageing population. It also found that the economy relies heavily on sectors like tourism and agriculture, which tend to be characterised by lower wages and lower productivity. This makes the region's economy fragile, more vulnerable to economic instability, and less resilient to economic shocks. These challenges are further reflected in higher levels of deprivation and fuel poverty.

Despite these challenges, wellbeing in the area is generally high[2], with a high standard of living and quality of life, which makes the Local Area potentially attractive to people from more urban areas looking for a change in lifestyle.

[2] See for example analysis of distribution of wellbeing across the UK for relative position of Highland in comparison to other UK local authorities. https://biggareconomics.co.uk/wellbeing-indicators-across-the-uk

Within this context, this report identifies the scale of both new and existing opportunities and a range of potential activities and comparable models that could be used to address the socio-economic challenges. In particular, this report explores the opportunities arising from the area's existing strengths, including crofting and tourism, as well as those associated with the shift towards remote working, an increase in onshore wind farms within the region, and the emergence of natural capital markets.

The remainder of this report is structured as follows:

- section 2 provides an overview of the key findings from phase one of this work and outlines what the economy could look like in 2045 if current trends continue;
- section 3 outlines opportunities to address socio-economic challenges within the Local Area by leveraging existing strengths, including crofting and tourism;
- section 4 describes how the shift to remote working creates an opportunity for the region to become an attractive location for highly mobile knowledge workers;
- section 5 describes opportunities associated with the roll out of onshore wind, including community benefit funding and local supply chain development;
- section 6 explores how communities elsewhere in Scotland have responded to similar socio-economic challenges; and
- section 7 outlines the opportunities associated with the emergence of natural capital markets as a potential source of income for both individuals and the wider community.

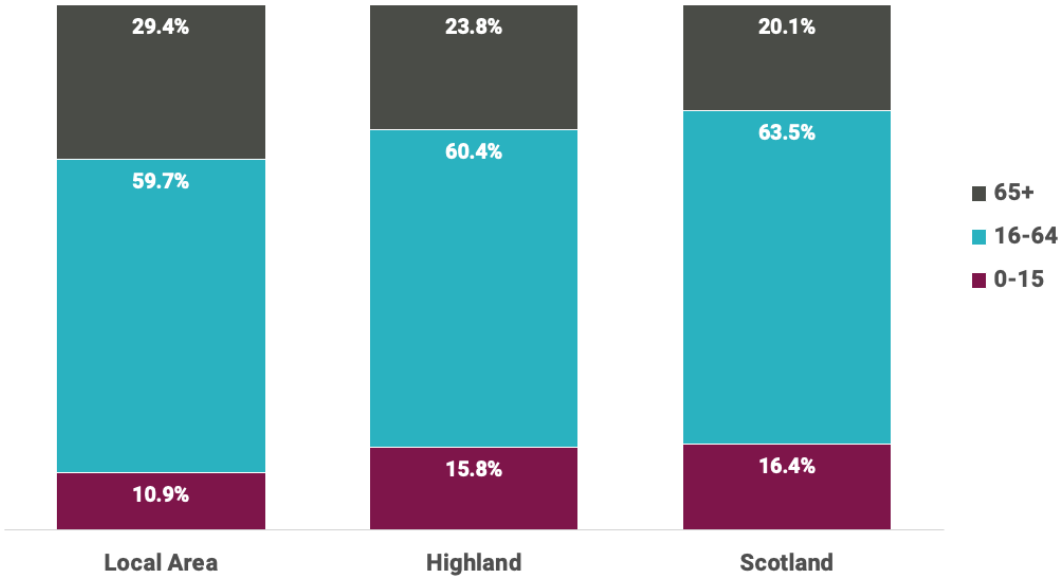
# 2. The Challenge

The Local Area is currently caught in a downward spiral, driven by a declining and ageing population. However, it possesses inherent strengths and untapped opportunities that could provide a pathway for reversing this trend and changing course.

## 2.1 Population: A Spiral of Decline

The Local Area, home to 3,200 residents in 2022 (1.4% of Highland's 235,700 population), faces distinct demographic challenges, characterised by a lower proportion of working-age residents and a higher proportion of residents aged 65 and over compared to both Highland and Scotland (Figure 2-1).

**Figure 2-1: Population Estimates (2022)**

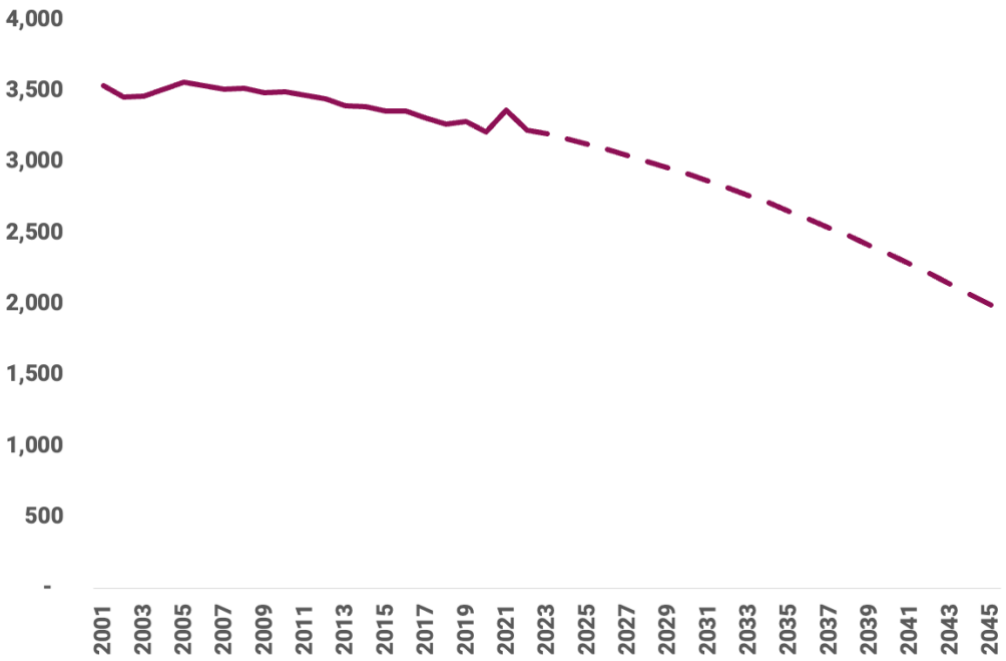



Source: NRS (2024). Small Area population Estimates at Mid -2022 by single year of age.

Over the past 20 years, the Local Area's population has declined from 3,500 to 3,200 but this decline has been accompanied by significant demographic shifts. The proportion of working-age residents fell from 63% to 60%, while the proportion of residents aged 65 and over rose from 19% to 29%. The number of children nearly halved, falling from 670 to 350.

The Local Area's current demographic trends are unsustainable. A preliminary population projection, based on simple trend extrapolation[3] (assuming past trends continue unchanged), suggests a potential decline to 2,000 residents by 2045 (see Figure 2-2). This represents a significant population loss of over one-third in just over two decades. This projection highlights the urgency of addressing these demographic challenges.

**Figure 2-2: Total Population (Local Area): Estimate and Projection**



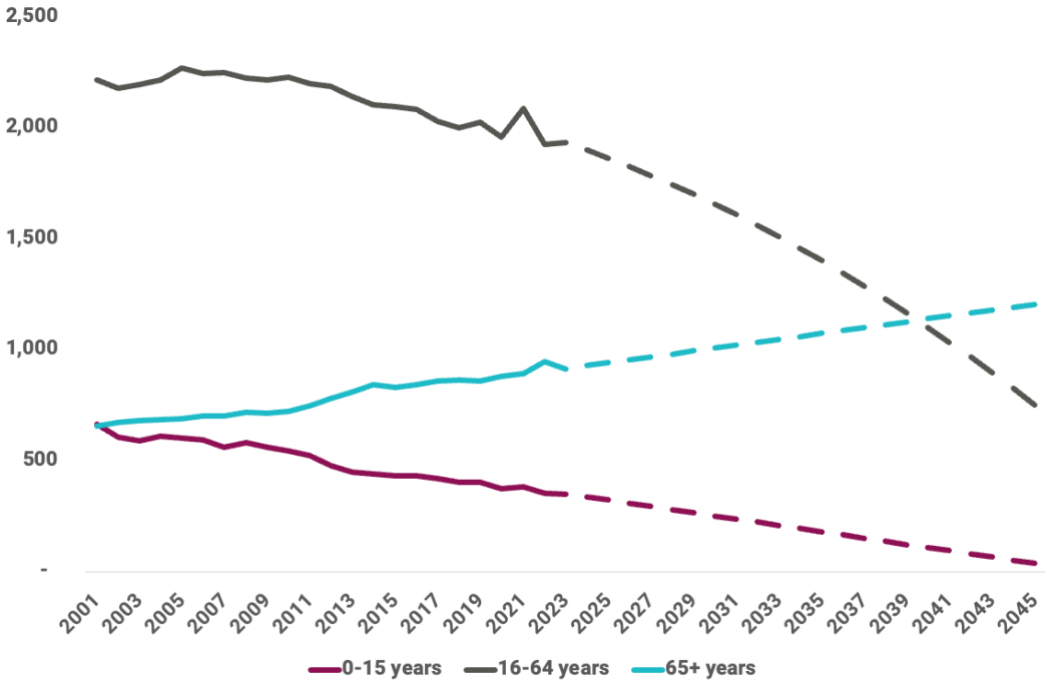

Source: NRS (2024). Small Area population Estimates (2011 Data Zone based) - Data for 2001-2022.

Figure 2-3 shows how the age structure of the Local Area could change, based on simple trend extrapolation. It shows that, if past trends continue unchanged, there will be an unsustainable shift in the Local Area's demographics by 2045 with the proportion of working-age residents falling to 38% and the proportion of residents aged 65 increasing to 60%. This indicates a significant demographic tipping point around 2040, when the number of residents aged 65 and over surpasses the number of working-age residents, significantly increasing the dependency ratio. The decline in the number of children under this scenario is also substantial, falling from 350 to just 40. This demographic shift has profound implications for the area's long-term economic and social sustainability.

It is crucial to note that the changes described above are based on simplified assumptions and do not account for potential changes in factors such as fertility rates or migration patterns that could significantly impact the current trajectory. Nonetheless, the data presented vividly illustrates the spiral of decline implied by current trends if no action is taken.

[3] It is important to acknowledge that this projection is based on simplified assumptions and does not account for potential future changes in factors influencing population growth.

**Figure 2-3: Population by Age Group (Local Area) Over Time**




Source: NRS (2024). Small Area population Estimates (2011 Data Zone based) - Data for 2001-2022.

The increasing dependency ratio resulting from these demographic shifts poses substantial challenges to the Local Area. A larger dependent population (those aged 65 and over, and children) relative to the working-age population puts strain on both economic resources and public services. The expected surge in the elderly population will create immense pressure on health and social care services. Demand for geriatric care, home care, and specialised medical facilities is likely to increase significantly, potentially exceeding the capacity of existing services. Recruiting and retaining qualified healthcare professionals in the area is also likely to become more difficult.

Conversely, the dramatic decline in the number of children has significant implications for education. School closures become a distinct possibility, potentially leading to longer commutes for students, reduced educational opportunities, and the loss of vital community hubs. It is reasonable to expect these closures to further exacerbate the decline in attractiveness of the area for young families, creating a negative feedback loop.

The combined effect of these pressures – increased demand for elder care and decreased demand for education – underscores the urgent need for proactive planning and policy interventions to address the Local Area's changing demographics.

## 2.2 Economy: Structure and Implications

The Local Area faces economic challenges characterised by a strong dependence on a limited number of sectors, creating vulnerabilities to external shocks and hindering diversification. This reliance is particularly significant given the demographic shifts described above, which will likely strain existing economic resources and public services.

The employment structure of the Local Area, detailed in Table 2-1, reveals a high concentration of employment in the accommodation and food services sector (24.3% of local jobs), indicating a substantial reliance on tourism-related industries. The agriculture, forestry, and fishing sector also plays a prominent role (22% of local employment), reflecting the area's traditional reliance on primary industries. Both sectors face inherent vulnerabilities to external factors and economic fluctuations.

**Table 2-1: Employment Structure, 2023**

| | Local Area | Highland | Scotland |
|---|---|---|---|
| Accommodation and food services | 24.3% | 12.5% | 8.6% |
| Agriculture, forestry and fishing | 22.0% | 10.9% | 3.4% |
| Construction | 12.1% | 6.2% | 5.1% |
| Education | 8.3% | 7.0% | 8.2% |
| Wholesale and retail trade | 7.3% | 13.3% | 13.2% |
| Human health and social work | 5.8% | 15.6% | 15.6% |
| Manufacturing | 3.8% | 4.7% | 6.7% |
| Real estate activities | 3.8% | 1.4% | 1.5% |
| Transportation and storage | 3.2% | 4.7% | 4.5% |
| Public administration and defence | 3.2% | 4.7% | 6.2% |
| Administrative and support activities | 2.6% | 4.7% | 6.8% |
| Arts, entertainment and recreation | 1.9% | 3.1% | 2.7% |
| Professional, scientific and technical activities | 1.0% | 4.7% | 7.2% |
| Information and communication | 0.3% | 1.8% | 3.1% |
| **Total** | **1,565** | **128,450** | **2,657,000** |

Source: ONS (2023), Business Register and Employment Survey, 2022.

This employment structure, combined with the projected demographic changes, presents challenges for the future of the Local Area's economy. The high concentration of employment in potentially volatile sectors like tourism and primary industries creates vulnerability to external shocks. While construction is a significant employer, its vulnerability to economic cycles and limited potential for long-term

growth pose challenges. The underrepresentation of human health and social work is notable given the Local Area's ageing population, and the low representation in professional and knowledge-based sectors indicates a potential lack of diversification and innovation.

Beyond these structural challenges, the projected decline in the working-age population has direct implications for the Local Area's future economic output. Assuming the employment rate remains constant, the workforce could decline to approximately 610 individuals by 2045, a substantial reduction from the 1,565 employed in 2023. This shrinking workforce may limit the Local Area's ability to maintain current levels of economic activity, support essential services, and attract new businesses and investment.

The combined effect of a shrinking workforce and sectoral vulnerabilities creates a complex economic outlook for the Local Area. Addressing these challenges will require proactive measures to support existing industries, attract new investment, and foster a skilled workforce. Strategies to encourage young people to remain in the area, attract skilled workers from elsewhere, and promote entrepreneurship and innovation will be crucial for mitigating the potential negative impacts of the projected demographic and economic changes.

## 2.3 A Region of Strengths and Opportunities

Despite the demographic and economic challenges outlined in the previous sections, the Local Area retains distinct advantages that could form the foundation for regeneration and sustainable growth. The region offers a unique combination of assets that are increasingly sought after in a changing world. These include a high quality of life, stunning natural surroundings, and the potential for a slower pace of life and better work life balance.

The following chapters will explore these opportunities in greater detail, examining how the Local Area could build on its strengths to create a more vibrant and sustainable future. This will include an examination of crofting as a way of life, exploring its potential to attract new residents and revitalise the region. Additionally, the analysis will delve into the opportunities presented by the changing economy, particularly the rise and potential opportunities of remote work. Finally, the potential of the Local Area's rich natural capital, including its stunning landscapes, biodiversity, and renewable energy resources, will be explored.

By harnessing its inherent strengths and capitalising on emerging opportunities, the Local Area can chart a different path towards a more prosperous and resilient future.

# 3. Building Existing Strengths

Analysis of the industrial structure of the Local Area illustrates that agriculture, fishing and tourism account for nearly half of all jobs. Crofting provides an important framework for building on these strengths and could provide an anchor to improve the population profile and resilience.

The spiral of decline described in the previous chapter is driven by long-term socio-economic trends. Populations are drawn to concentrations of economic activity around industries or in towns and cities. It is a huge challenge for public agencies and community organisations to build resilient, inclusive, and sustainable growth in remote rural areas, particularly in areas that already have declining populations.

The proportion of people employed in the agriculture, forestry and fishing sector is over six times larger than Scotland as a whole and twice that of Highland (as illustrated in Table 2-1). Employment associated with accommodation and food services is also nearly three times higher in the Local Area than Scotland's average and nearly twice that of Highland. Although these can be low income activities, it is also important to consider how these can be mobilised as strengths in relation to NW45's vision to develop as a place:

- that is attractive for young people and families to live and work;
- has a diverse and sustainable rural economy; and
- where communities can determine their own prospects.

One important resource that could enable these aspirations to be realised is crofting. BiGGAR Economics analysis[4] suggests there were 1,093 crofts in the Local Area in 2022/23 and at least 54% of the local population lived in crofting households. It also showed the crofting population has increased by around 3% since 2016. This is in stark contrast to the total population of the Local Area, which fell by 4% over the same period. This contrast provides a powerful illustration of the importance of crofting to retaining population in the area. This is because crofters have a duty to be ordinarily resident on their croft which helps embed working people in the area.

A survey from 2022[5] found that around two thirds of crofters were self-employed or had another job instead of or as well as crofting. It also showed that although food production remains the most common crofting activity, around 13% of crofters operate a B&B or holiday let, and 7% are engaged in another leisure-based activity.

[4] BiGGAR Economics, 2025. NW2045: Socio Economic Profile
[5] Scottish Government (2022), Economic Condition of Crofting Report 2019-2022

Living on and having access to a croft lends itself to plurality, enabling households to combine income from more than one source in a way that adds up to a decent standard of living. Supporting tourism-related activities on crofts is an important component of this, whilst many crofters provide food and drink or craft goods to businesses that cater for tourists. All of these activities provide opportunities for visitors to stop and spend money. Other crofters are involved, for example, in construction trades and do work that enables other businesses to grow.

Crofting therefore ensures that families remain in the area, helping to address depopulation challenges, and improve the overall resilience of the working population. It provides a platform for multiple activities and contributes to the local labour supply. Crofting also provides the security for small businesses to take root and enables entrepreneurship and innovation to thrive at a small scale.

The attraction of the crofting lifestyle is evidenced by the number of croft seekers registered with the Scottish Land Matching Service. In 2024, a total of 253 active croft seekers[6] were registered on its database, yet only one provider. Of these 114 seekers were located outwith the crofting counties and, of these, 37% were from Scotland, 56% from England and Wales, and the remaining 7% from overseas. Notably, the west mainland was the most popular region for those seeking a croft. Many are looking for a lifestyle change or seeking a sustainable, rural existence. There has been an increasing interest from younger people as they look for ways to establish a more independent and environmentally responsible way of life.

Increasing the number of crofting families in the Local Area could help mitigate the depopulation challenge[7]. There are two ways of doing this, by repopulating vacant crofts or by creating new crofts, but both mechanisms would need to be targeted at attracting young new entrants if they are to have any real impact.

## 3.1 Absentee Crofters and Vacant Crofts

The Crofting Commission does not publish detailed figures on absentee crofters. However, a conservative estimate of the proportion of crofters not resident on their crofts is estimated to be 5% from the 2023 crofting census figures presented in Crofting Commission's Annual Reports and Accounts[8].

However, this figure is likely to be higher than the number of crofts that could be made available to others as absentee crofters can seek consent to be absent or sublet the croft if there are legitimate reasons why they are unable to be resident. The crofting census had a response rate of 69% in 2023, and those crofters with consent for absenteeism are more likely to have responded than those who do not. It is unknown how many of the 31% non-responders are absentees, but the Crofting

[6] Scottish Land Matching Service (August 2024), Crofting Enquiry Statistics, Crofting Commission
[7] Caution may be required to ensure any action taken to achieve this did not have unintended consequences on land prices.
[8] It reported 716 crofters not resident on their crofts out of 13,679 submissions

Commission undertook to engage with crofters who did not respond, and whose address indicates that they are in breach of their residency duty.

The Commission's policy on absenteeism is to balance the interests of the individual crofter who is applying for consent to be absent with the interests of the wider crofting community and the desirability of retaining an active population.

Crofters in Coigach and Assynt cited the following as issues of most concern in relation to their negative impact on crofting activity[9]:

- the scale of neglect and absenteeism;
- the aging and declining population; and
- the inaccessibility to new entrants, particularly younger people.

This would suggest that there is an appetite for the community to influence the application of the Crofting Commission's absentee policy by making clear the strength of feeling regarding the wider crofting community interest.

## 3.2 New Crofts

The other option to increase the availability of crofts is to create more new crofts. This is not a novel idea for the Local Area, Assynt Crofters' Trust has created new crofts in recent years and a coordinator for demonstration crofts at Coigach and Assynt has developed croft plans and coordinated local training. Whilst the Crofting Commission approves new crofts and helps manage the registration process, it is under the control of landowners to instigate the creation new crofts.

## 3.3 Impact on the Population

Identifying and instigating opportunities is the responsibility of landowners and crofting communities in active collaboration with the Crofting Commission. Developing a local policy and culture aimed at bringing in new entrants, would reinforce pro-active positive application of regulation.

However, in addition to increasing the number of crofting households by addressing absenteeism and/or creating new crofts, it is equally important to ensure new entrants have a much younger demographic profile than the existing population. Targeting young people and ideally young families who are likely to start businesses and potentially employ others in time should be a priority. Even a small number of additional children could make a big difference to local schools and over time this will make it more attractive for young people and families to live and work here.

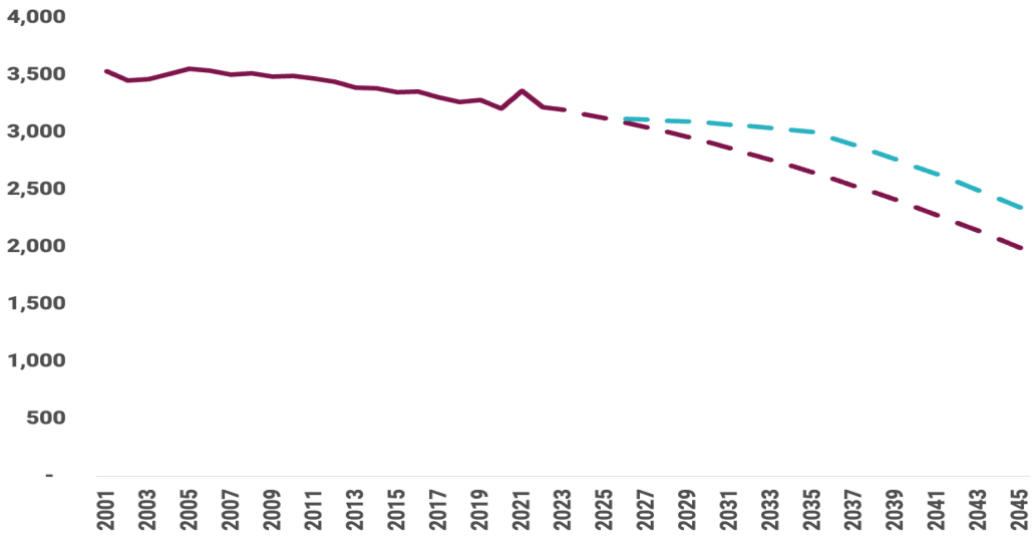
[9] SRUC Report from the Coigach & Assynt Living Landscape Partnership, 2022. The State of Crofting in Coigach & Assynt

For comparison, 29% of the 510 new entrants across all of the crofting counties in 2022/23 were aged under 41[10], it would be essential in the Local Area to make sure all new entrants were under 41.

Increasing the number of crofts and attracting young people and families to relocate to the Local Area could help to address the urgency of the demographic challenges. For example, a targeted initiative to increase the number of crofts in the Local Area by 10% over the next ten years could lead to approximately 120 crofts by 2035. Assuming three residents per croft, all of whom would be newcomers to the area, implies this initiative could add approximately 350 additional people to the population of the Local Area over the next 10 years.

Figure 3-1 illustrates the potential impact that this could have on the population of the Local Area. Although increasing the number of crofts is not enough to reverse the trend of depopulation in the Local Area, it could contribute to population retention and provide time for other solutions to be explored. Creating new crofts is also likely to provide additional housing and would provide the basis for further economic activity in the area.

**Figure 3-1: Total Population (Local Area): Impact of New Crofts**




Source: NRS (2024). Small Area population Estimates (2011 Data Zone based) - Data for 2001-2022.

The combination of crofting and remote working opportunities presents a unique and potentially powerful draw for those seeking a lifestyle change. This could be particularly attractive to young people and families, as well as those who have left the area for education or work but are now seeking a return. While crofting does not usually generate enough income to sustain a family, it can offer a sustainable and fulfilling lifestyle, while remote work provides the opportunity to earn a living from anywhere with an internet connection. This combination could be key to revitalising the region and attracting a new generation of residents.

[10] Crofting Commission, 2024. New crofters hit 5 year high

# 4. Growing the Workforce

The rise of remote work offers an emerging opportunity to attract talent, revitalise communities, and build a more sustainable future.

The Local Area is a region of stunning natural beauty, rich cultural heritage, and abundant outdoor opportunities. However, it has long struggled to retain and attract residents due to limited employment opportunities. Outward migration is often driven by the need to find work elsewhere, while the lack of local job prospects remains a key barrier to inward migration. As the global economy evolves with advances in digital technology and connectivity, new opportunities are emerging.

## 4.1 Changing Landscape of Work

The growth of remote work, driven Industry 4.0[11] and evolving work patterns, offers rural areas like the Local Area a chance to attract highly skilled professionals who are no longer tied to urban employment hubs. Just as importantly, it allows local residents to access high-quality jobs without leaving and creates opportunities for those who have moved away, particularly young people who leave for university, to return and build their careers remotely.

Remote working encompasses two models. The first involves people working remotely for an employer based elsewhere, the second consists of businesses operating remotely from their clients or customers, either selling physical products that can be transported or offering digital services and products that can be delivered electronically. As technology improves, both models are becoming increasingly viable, especially in knowledge-intensive, high-productivity sectors. This has the potential to reshape rural economies, allowing people to live where they choose rather than where jobs are concentrated.

Historically, many young people from the Local Area have left for education and careers, often finding limited opportunities to return due to a lack of suitable jobs. Remote work could change this in two main ways. First, it could help retain residents by enabling them to access careers in high-productivity sectors without having to relocate. Second, it could encourage return migration. Many who leave for university might prefer to return but feel unable to do so due to career constraints. If remote work opportunities were widely available, moving back would become a much more viable and attractive option. By enabling more people to live and work locally, remote work has the potential to reverse population decline and strengthen the region's long-term sustainability.

[11] The 4th industrial revolution, a period of rapid technological change characterised by the digitisation of industry, adoption of artificial intelligence, digital connectivity of everyday objects and 3D printing.

## 4.2 Overcoming Barriers, Embracing Opportunities

Reliable broadband connectivity is critical for enabling remote work. This is recognised by the NW2045 Vision, which identifies high speed broadband as one of six goals for the region. It has also long been recognised by the Scottish Government and is reflected in the Government's commitment to the R100 programme, a £600+ million investment designed to bring faster broadband to thousands of homes and businesses across Scotland.

The programme was established in 2016 with the aim of ensuring everyone in Scotland would have access to superfast broadband by the end of 2021. This deadline has since been pushed back to 2028 and local leaders have expressed frustration about the pace of change, with some expressing the view[12] that planned activity is unlikely to fix Scotland's connectivity crisis.

While traditional fibre-optic broadband is unlikely to reach many parts of the Local Area in the near future, satellite technology offers a viable alternative. Providers such as Starlink and OneWeb now deliver broadband access worldwide, including across the Highlands and Islands. Starlink's network of approximately 4,000 satellites already provides high-speed, reliable internet connections, making remote work feasible across the entire Local Area in ways that were previously impossible.

According to a report[13] by Highlands and Islands Enterprise on connectivity assessments in North West Sutherland and Coigach, approximately 56% of properties have poor broadband speeds (defined as download speeds of less than 30Mbps). Providing these properties with fast, reliable satellite broadband would cost approximately £1.4 million annually (assuming a monthly subscription cost of £75). To provide every home with this service would cost around £2.4 million. Reducing costs and increasing awareness of available solutions will be key to unlocking its full potential.

Despite this challenge, the Local Area has many natural advantages that make it an attractive destination for remote workers and business owners. It offers a high quality of life, with breathtaking landscapes, abundant outdoor activities, and a strong sense of community, qualities that appeal to professionals seeking a better work-life balance. Housing in the local area can be less expensive than comparable properties in popular urban centres, which may provide an additional financial incentive for people who may be considering relocating. The region's rich cultural and historical heritage also offers a deep sense of place and identity, which could be a significant draw for those seeking meaningful connections to their surroundings.

Remote work also presents a major opportunity for population retention and return migration. For those who grew up in the Local Area, it offers a way to remain in or return to their home communities while still pursuing successful careers. Many

[12] Holyrood Magazine (February 2025), 'R100 Scheme Wil Fail, Council Leaders Claim.'
[13] Highlands and Islands Enterprise (2024), Connectivity Assessments. North West Sutherland and Coigach.

people may not yet realise that working remotely from the region is a viable option, highlighting the need for greater awareness and support.

To attract remote professionals and businesses, several strategic steps should be taken. Promoting the Local Area as a prime remote work destination through targeted campaigns could highlight its advantages. Expanding co-working spaces and professional networks could foster collaboration and innovation, helping remote workers stay connected. Encouraging entrepreneurship and digital business development, through incentives and tailored support, could further strengthen the local economy. By addressing these factors, the Local Area could position itself as a thriving hub for remote work, drawing skilled professionals and ensuring long-term economic resilience.

## 4.3 A Self-Sustaining Economic Future

Attracting a critical mass of remote workers and digital businesses could create a self-reinforcing cycle. As more professionals move to or remain in the area, demand for local services, housing, and amenities will grow, further enhancing the region's appeal. Over time, this momentum could support sustained economic and population growth.

The Local Area has an opportunity to redefine its economic future by embracing remote work. While challenges remain, recent technological advances and shifting work trends make it more feasible than ever to attract skilled professionals and businesses to the region.

Most importantly, remote work empowers people to stay in the region if they choose, reducing outward migration and strengthening local communities. It also provides those who have left, particularly young people who moved away for education, with a realistic opportunity to return home without sacrificing career prospects.

By addressing key barriers and actively promoting its strengths, the Local Area can position itself as a leading rural destination for remote work, ensuring long-term economic resilience and growth.

# 5. Wind Energy Opportunities

The onshore wind energy sector offers significant opportunities for local employment and community benefit funding, that will contribute to economic growth and sustainability.

While public support for the deployment of onshore wind infrastructure is generally high, it is important to acknowledge this support is not universal. There are those who do not support the large-scale deployment of onshore wind farms for sincerely held reasons and those who may remain unconvinced about the potential of the sector to generate benefits for local communities. This makes ongoing work to strengthen dialogue and build relationships between developers, operators and communities particularly important.

However, it remains the case that the Scottish Government is strongly committed to the deployment of onshore wind infrastructure at scale to help meet Scotland's net-zero aspirations and is working in partnership with industry toward a target of 20GW of onshore wind capacity by 2030. Much of this deployment is expected to take place in the Highlands, which will present opportunities for both local communities and the wider region. It is therefore important that these opportunities are considered as part of this assessment.

## 5.1 Highland Onshore Wind Energy

The Highland region has experienced significant growth in renewable energy projects over the past two decades, particularly in onshore wind development. As of 2024, the Highland local authority had an installed onshore wind capacity of approximately 2.0 gigawatts (GW), accounting for around 22% of Scotland's total onshore wind capacity. Beyond generating renewable energy, onshore wind developments provide substantial economic benefits. The construction and development phases create supply chain opportunities and employment, while ongoing operations support long-term jobs in maintenance.

A study by BiGGAR Economics[14] assessed the economic impact of wind energy developments in Moray and Highland and explored ways to maximise future benefits. Since 1998, an estimated £4.5 billion has been invested in the development and construction of 2.6 GW of wind energy projects in the region, with annual operations and maintenance expenditures reaching approximately £128 million. The study estimated that capital investment in these projects has generated a cumulative economic impact of £0.9 billion and supported around 17,670 years of employment

[14] BiGGAR Economics (January 2024), Developing a New Model to Maximise Local Economic Benefits from Development in Moray and Highland. A report to Moray and Highland Councils.

in Moray and Highland. Additionally, the ongoing operation of these wind farms contributes £34 million in Gross Value Added (GVA) per year and sustains over 400 jobs in the region.

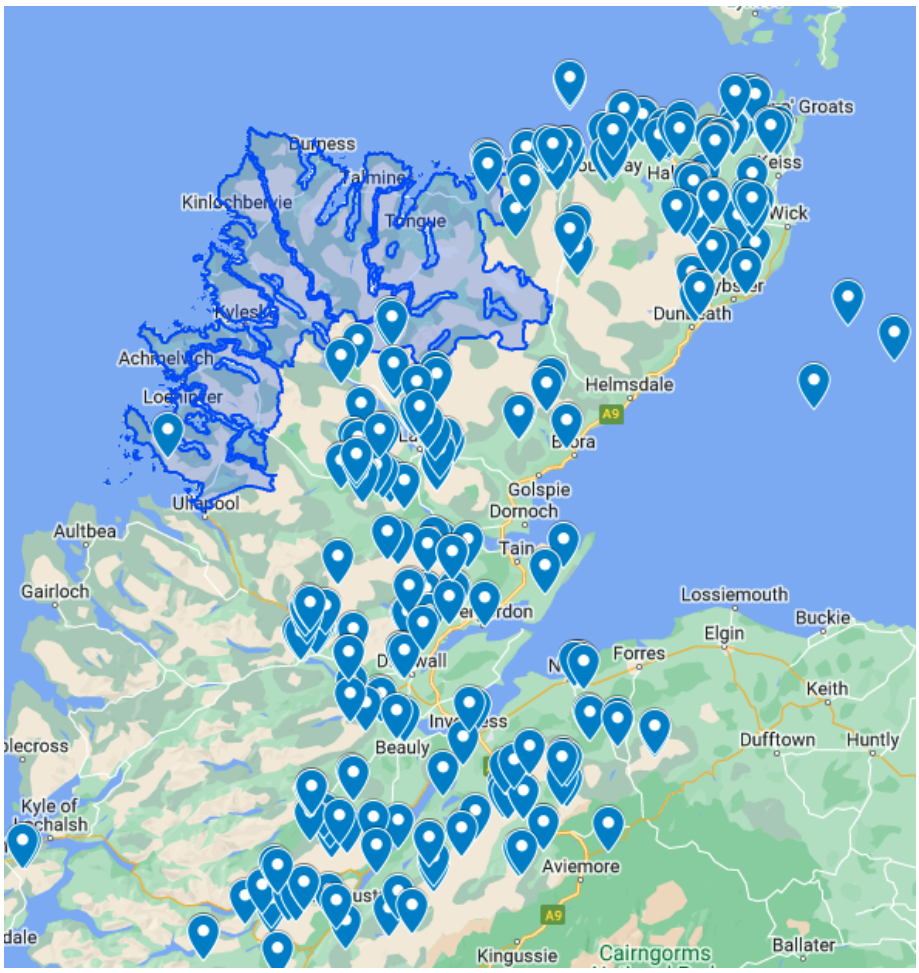
The sector also plays a vital role in supporting local communities. In 2023, between 80% and 90% of wind farms in the region provided direct funding to host communities through community benefit funds. Many developers also offered broader benefits such as shared ownership schemes, electricity discounts, and support for community-led housing projects or recreational infrastructure. In total, these initiatives generated around £8.7 million in community benefit funding in 2023.

The economic impact of onshore wind is expected to grow substantially in the coming years. The Scottish Government aims to achieve 20 GW of installed onshore wind capacity by 2030, requiring a significant increase in investment. For the north of Scotland, this represents a major economic opportunity. By 2030, the sector could:

- increase its annual economic contribution to £61 million GVA;
- support up to 760 jobs; and
- generate nearly £22 million per year in community benefit funding.

Figure 5-1 illustrates the scale of the onshore wind sector in Highland, including all sites in the planning, development, consenting, construction, and operational phases.

**Figure 5-1 Highland Wind Energy Developments**




Source: Google Maps (2025), ONS (2023) Business Register and Employment Survey. Renewable UK Wind Energy Database (2025).

## 5.2 Local Area Onshore Wind Energy

The Local Area and its 15km surrounding radius contain several operational wind farms, contributing to renewable energy generation and delivering economic benefits to the region. These include:

- **Creag Riabhach Wind Farm** - Operational since 2023, this site consists of 22 turbines with a total capacity of 92.4 MW.
- **Bettyhill Wind Farm** - Operational since 2013, this site consists of two turbines with a total capacity of 6 MW.
- **Gordonbush Wind Farm** - Operational since 2012, this site consists of 35 turbines with a total capacity of 71.25 MW. An extension in 2021 added 11 turbines and an additional installed capacity of 38 MW.
- **Strathy North Wind Farm** - Operational since 2015, this site consists of 33 turbines with a total capacity of 67.75 MW.

Additionally, two approved wind farm developments within the Local Area will further enhance capacity:

- **Creag Riabhach Wind Farm Extension** - Approved in 2024, this extension will add three turbines, generating approximately 12.6 MW. A battery energy storage system (BESS) with a capacity of 37.3 MW will be included, bringing the combined export capacity of the site to over 50 MW.
- **Bettyhill Wind Farm Phase 2** - Approved in 2024, this expansion will add 10 turbines with a total capacity of 48 MW. Battery storage will bring the combined maximum capacity to 49.9 MW.

Beyond the Local Area, an additional 12 wind farms are in various stages of development, planning, or approval within a 15km radius, with a combined potential capacity of 969 MW.

### 5.2.1 Economic Benefits

Onshore wind projects drive economic activity by creating demand for a range of goods, services, and expertise. Key areas of impact include:

- **Development** – Typically 5-10% of total capital expenditure, benefiting local environmental, planning, and consultancy firms.
- **Turbine Supply** – The largest expenditure (50-60%), providing transport and logistics opportunities for Highland businesses.
- **Balance of Plant** – Covers civil engineering work such as roads and foundations, offering significant contracts to local firms.
- **Grid Connection and Electrical Infrastructure** – Involves substation construction and electrical equipment installation, supporting skilled jobs in the north of Scotland.

The development and construction of wind farms drive economic benefits by creating contracts across these areas, supporting local businesses and jobs. Projects such as the Creag Riabhach Wind Farm Extension and Bettyhill Wind Farm Phase 2 have the potential to generate further economic activity and employment in the Local Area. Additionally, there may be opportunities for residents and businesses in the Local Area to secure contracts for the 12 wind farms in the various stages of development, planning, or approval in other parts of the Highland council area.

In addition to the initial investment, onshore wind farms continue to contribute economically throughout their operational lifetimes. The largest ongoing expenditures (excluding landowner rents) are transmission costs and turbine maintenance, followed by operational management. These activities ensure wind energy remains a long-term driver of economic value for the region.

How this value is ultimately distributed across the region will naturally be influenced on the industrial structure of the area with the economic activity and jobs directly supported by supply chain contracts being focused around where supply chain companies are based. However, the wider multiplier effects of this activity will be more dispersed, reflecting the wider patterns of expenditure both by businesses that

provide goods and services to the companies that secure supply chain contracts and the people who work for them. These wider supply chain effects are more difficult to capture using standard economic analysis but should not be underestimated.

Beyond the economic impact generated by wind farms, community benefit funding creates impact for local communities.

### 5.2.2 Community Benefit Funding

Over the past 20 years, it has become standard practice for developers to make voluntary contributions to local communities hosting wind energy projects. These community benefits help ensure that residents receive tangible benefits from nearby developments while fostering positive relationships between developers and communities. The onshore wind sector is committed to working closely with local stakeholders, engaging them in decision-making, and delivering meaningful benefits that support sustainable and inclusive development.

While community benefit funds remain the primary mechanism for distributing these benefits, developers are increasingly offering a broader package of initiatives. These may include shared ownership models, electricity discount schemes, and funding for community-led projects such as housing and recreational infrastructure.

### 5.2.3 Existing Community Benefit Contributions

The Creag Riabhach Wind Farm Community Benefit Fund provides an annual contribution of £462,000, split equally between two beneficiaries:

- 50% is allocated to those living and working in the Local Area of Altnaharra through the Altnaharra Community Trust.
- 50% supports the wider North and West Sutherland communities via the North and West Sutherland Trust.

The Creag Riabhach Wind Farm Extension, expected to generate an additional 12.6 MW, will increase community benefit funding proportionally, further supporting local development initiatives. Additionally, other wind farms in the Local Area and within a 15km radius provide substantial community benefit funding:

- Gordonbush Wind Farm and its extension contribute around £200,000 per year.
- Strathy North Wind Farm contributes around £225,000 per year.

This brings the current total of community benefit funding in the Local Area and surrounding 15km radius to £887,000 per year.

### 5.2.4 Potential Future Community Benefit Contributions

The potential for community benefit funding is expected to increase significantly in the coming years. If the additional 969 MW of onshore wind projects currently in development, planning, or approved stages become operational and provide community benefit funds at the recommended rate of £5,000 per MW and the current model of distributing funding, this could generate an additional £4.8 million per year in community benefit funding.

For example, Bettyhill Wind Farm Phase 2 is expected to provide significant community benefits, with contributions of up to £250,000 per year, index-linked over the project's 35-year lifespan, amounting to a total of over £8.5 million. Community funding will be allocated as follows:

- 50% directed to the Bettyhill, Strathnaver, and Altnaharra communities as the primary host area.
- 50% shared among six neighbouring community councils: Strathy & Armadale, Tongue, Durness, Kinlochbervie, Scourie, and Melvich.

In addition to direct funding, Bettyhill Wind Farm Phase 2 will introduce a Local Electricity Discount Scheme, offering annual savings of up to £200 per household and business, potentially reducing energy costs by £90,000 per year across the seven community council areas. Education will also benefit, with an annual programme fund of £5,000, index-linked, supporting Bettyhill, Melvich, and Tongue Primary Schools, as well as Farr Secondary School.

To ensure long-term financial benefits for the region, up to 20% of the wind farm's ownership will be made available for community shared ownership through the Farr North Community Development Trust. Furthermore, the development will include a peatland restoration initiative, helping to sequester carbon and enhance local biodiversity. Through these measures, Bettyhill Wind Farm Phase 2 will not only contribute to renewable energy generation but also deliver lasting economic, social, and environmental benefits to the surrounding communities.

Overall, community benefit funding in the Local Area and surrounding 15km radius currently totals £887,000 per year. If all additional wind farms in development, planning, or approved stages become operational, this could increase to £4.8 million annually, with a significant proportion directly benefiting the Local Area.

### 5.2.5 Leveraging Community Benefit Funding

Wind farm community benefit funds provide vital resources that can be used to secure additional investment from other sources, significantly enhancing the impact of the community organisations that receive them.

A study by BiGGAR Economics[15] found community organisations in Highland have been highly successful in leveraging wind farm community benefit funding to attract further financial support. In some cases, every £1 received has enabled these organisations to secure nearly £7 in additional funding from other sources.

If community organisations in the Local Area were able to leverage future community benefit funding of £887,000 per year at a similar rate, total funding could rise to £6.2 million annually. While this represents an ambitious upper limit, it highlights the substantial potential for investment and long-term community impact.

[15] BiGGAR Economics (February 2025), Impact Assessment of SSE Renewables Achany and RWE Rosehall Wind Farms Community Benefit Funds. A report to RWE, Foundation Scotland and SSE Renewables.

Experience elsewhere shows local communities are most effective at securing additional funding when they have experienced, professional development workers working on their behalf, often as part of a local development trust or similar. These organisations tend to be most effective when they can access long-term funding to support core operations. Stable, long-term funding enables them to employ permanent staff who can focus on securing project funding, developing skills, and building the capacity of the organisation.

By ensuring local groups have the resources to plan for the long term, community benefit funding can help underpin sustained economic and social development.

## 5.3 Summary

The onshore wind energy sector presents significant opportunities for Highland and the Local Area. Wind farm developments create jobs, stimulate local supply chains, and provide long-term economic benefits during construction and operations. Projects such as the Creag Riabhach Wind Farm and Bettyhill Wind Farm Phase 2 will drive investment, supporting both economic growth and community development.

Community benefit funding remains a key mechanism for ensuring that local communities directly benefit from hosting wind farms. Contributions from operational wind farms currently total £887,000 per year within the Local Area and surrounding 15km radius, supporting local initiatives, infrastructure, and services. If all additional wind farms in development, planning, or approved stages become operational, this could rise to £4.8 million annually, with a significant portion benefiting the Local Area. Furthermore, leveraging this funding to attract additional investment could amplify its impact even further.

As the wind energy sector continues to expand, it presents a crucial opportunity for long-term, sustainable economic and social development across Highland.

# 6. Community Benefit Models

Experience elsewhere shows that by working together and collaborating with third-party delivery partners local communities can help tackle the challenges associated with depopulation, using models that could be replicated in the Local Area.

The socio-economic challenges facing the Local Area are serious, but they are far from unique. Many communities in the Highlands and Islands and other parts of rural Scotland, are grappling with the vicious cycle of depopulation and economic decline.

Some of these communities have responded proactively, developing creative and practical responses to the challenges they face. Often these responses have been made possible because of the injection of funding provided by nearby wind farms.

As discussed in the previous chapter, wind farms in the Local Area are expected to be generating around £887,000 in community benefit funding for local communities over the next few years. With effective stewardship it is estimated this has the potential be help secure as much as £6.2 million of community investment for the Local Area. This funding could be used help address important strategic challenges facing the area and help mitigate the spiral of depopulation and economic decline described elsewhere in this report.

This section explores how the experience of other communities grappling with similar challenges could provide both learning and inspiration for how to do this.

## 6.1 Vocational Training

As discussed elsewhere in this report one of the single most pressing challenge facing the Local Area is the declining population of working age people. An important factor driving this is the loss of young people.

Young people leaving the area where they grew up is not necessarily a bad thing. When the decision to leave is based on a positive choice driven by a desire to pursue opportunities elsewhere it can be hugely beneficial, but this is not always the case. For some young people the decision to leave is driven more by a lack of opportunities at home.

Finding alternative options for these young people that enable them to build a meaningful life near home could benefit both the young people concerned and the region. One way of doing this is to enable more young people to develop vocational skills by expanding the availability of apprenticeship opportunities.

### 6.1.1 The Kyle of Sutherland Apprenticeship Scheme

This approach has been successfully pursued elsewhere for example in the Kyle of Sutherland where a bespoke local apprenticeship scheme was established in 2010.

The Kyle of Sutherland Apprenticeship Scheme (KoSAS) provides financial support to local businesses and third sector organisations based in the community council areas of Ardgay, Creich and Lairg towards the cost of recruiting and training an apprentice. Young people living in these areas who don't have an apprenticeship offer but would like to find one can contact the scheme coordinator to help to match them with a local organisation that may consider taking on an apprentice.

Since 2010 the scheme has helped 36 young people from the Local Area develop their skills and secure employment in areas such as: joinery, plumbing, construction, brick laying administration, butchery, mechanics, equine husbandry, heavy plant operation, business management, electrical engineering and personal training.

The KoSAS was established using funding from SSE's Achany Wind Farm. It is administered on behalf of the community by the Lairg and District Learning Centre, an independent charity established in 2001 to provide facilities and resources to support learning and skills development throughout Sutherland.

The ongoing financial support needed to operate the scheme, including administrative costs and the costs involved in supporting the apprenticeship positions, is provided by SSE Achany and RWE Rosehall Wind Farms.

Although the current boundary of the scheme does not encompass the Local Area, the model used is one that could be replicated or (given sufficient funding and subject to successful negotiation) potentially expanded.

## 6.2 Community Led Housing

Another potentially important barrier to retaining young people in the Local Area is the availability and affordability of housing. People can only remain in (or move to) an area if there is somewhere suitable for them to live that they can afford.

Concern about the lack of affordable housing in the Highlands is well documented. Data published by the Highland Council shows demand for social housing outstrips supply by some margin. At the time of writing there were around twice as many[16] people waiting for social homes in the Highlands as there were homes available.

Superficial observation of the data suggests the shortage of social housing in the Local Area may be less acute than elsewhere in the Highlands, but the challenges of understanding local housing needs from regional data are well understood[17].

[16] Highland Housing Register, accessed via https://www.highland.gov.uk February 2025

[17] For example, chapter 12 of good practice guidance on how to carry out local housing system analysis published by the Scottish Government acknowledges that in rural aeras housing needs assessment may need to be undertaken for small areas and that results may only be valid for short periods of time.

Homes are not readily substitutable. (A two bedroom house in Coigach is unlikely to meet the needs of a family with three children where one parent works in Bettyhill). Underreporting of housing need is also recognised as an issue. For example, by young people who are ready to form a household of their own but are still living at home because they cannot find anywhere else to live. The implication of this is that traditional approaches to measurement can mask the true extent of housing need. particularly in small and geographically peripheral locations.

Some rural Scottish communities have taken direct action to address this by commissioning specialist advisors to undertake local housing needs assessments and then working with experienced delivery partners to deliver new homes where they are needed most. This experience is potentially something that could be replicated in the Local Area.

### 6.2.1 Smart Homes in Lairg

One project that could provide inspiration is a development of eight social homes completed in Lairg in 2024, the first new social homes to be built in the village for nearly 30 years. The development consists of four accessible bungalows and four one bedroom 'fit homes', each of which is equipped with sensors to allow the movements of the occupant to be monitored remotely to enable people with support needs to remain in their own homes for longer.

The new homes were developed by Albyn Housing Society, one of the largest social housing providers in the Highlands, using funding from the Scottish Government and the Highland Council. However, the development was made possible by local people.

The land for the development was donated by a local group, Lairg Community Development Initiatives, which acquired the site with the intention of developing it for the benefit of the local community. A project officer was then employed by the local community to develop plans for the project, and commission relevant specialist advisors to undertake necessary preliminary work. This work and the project officer post were all paid for using community benefit funding from nearby wind farms.

### 6.2.2 Homes for Island Workers

Another example that might also be relevant to the Local Area are the various developments being delivered on the small isles in collaboration with Mowi Scotland.

Mowi Scotland is one of the UK's largest salmon farming companies and it operates in some of Scotland's most fragile rural communities where staff recruitment can be extremely challenging. Over the past 10 years the company has tried to tackle this directly by working with local development trusts, councils and housing providers to build at least 16 new homes on Muck, Colonsay and Rhum. At least one project also involved the creation of office space, to enable residents to work from home.

While the number of new homes created through such projects is small in absolute terms, the benefits for the local communities concerned is substantial. The homes have enabled new residents to move to the islands, often bringing children who help stabilise local school rolls and spouses who contribute to the local economy.

## 6.3 Community Based Social Care

As highlighted elsewhere in this report, one of the most important challenges facing the Local Area is its declining and ageing population. Since 2001, the proportion of people aged 65 and over has increased from under 20% to nearly 30% and (as discussed in section 2.1), if this trend continues at its present rate the proportion of older residents could reach 60% by 2045.

In practice however, such a drastically imbalanced demographic profile is unlikely to be reached because of the difficulties of meeting the care and support needs of such a population. In reality it is more likely that the process of depopulation would simply accelerate as increasing numbers of elderly people are forced to leave the area to access the care and support they need.

If this situation (and the inevitable distress, discomfort and loneliness it would entail) is to be avoided, then sustainable approaches to providing for the increasing support needs of ageing residents must be developed. If this can be achieved in a way that also creates secure and rewarding career opportunities for the Local Area's younger residents, this could help counter the decline of the working age population as well.

This has been done in other parts of the Highlands and this experience could provide inspiration and learning that could be relevant to the Local Area.

#### 6.3.1 Highland Hospice Electric Vehicles

Highland Hospice is a third sector organisation committed to improving the quality of end-of-life care in the Highlands. It provides a variety of health services, including inpatient, community services, and education. With a team of 200 staff and 600 volunteers, the organisation has a significant presence in the region.

Highland Hospice collaborates with various community-based organisations to deliver care in more peripheral parts of the Highlands. Through these partnerships, the organisation has successfully accessed community benefit funding from nearby wind farms, which it has used to provide local staff with electric cars for delivering home care services.

By supplying electric cars, Highland Hospice has enhanced the efficiency of service delivery and the alleviated the burden on staff who previously had to use their own vehicles and cover travels costs. It has also addressed a problem common throughout the Highlands in recruiting and retaining care at home staff, by making the job more attractive and demonstrating the value of the service.

It is not unreasonable to expect that, if an effective partnership could be established with the local community, something similar could be established in the Local Area.

### 6.3.2 The Bradbury Centre

The Bradbury Centre is a purpose-built day care centre in Bonar Bridge for the elderly and younger adults with special needs. The Centre caters for more than 60 people, most of whom are over 85 years and several of whom have dementia and/or other care needs. It is also an important employer, providing jobs for several local people.

The Centre is open four days per week and twice a week visitors can stay all day, arriving for breakfast in the morning then participating in a full day of activities and lunch before going home again in the late afternoon. The centre also helps clients with important tasks like picking up prescriptions, going to the doctors, visiting the post office and attending medical appointments. These services have become a lifeline for some older adults, enabling them to maintain connections with friends and continue to feel involved in local life.

One of the important ways it does this is by providing transport to the centre, enabling visitors who might otherwise find it difficult to leave their homes to attend. If required the centre also provides personal care for users, ensuring services can be accessed by people who might not otherwise be able to attend.

In recent years the centre has benefited substantially from community benefit funding provided by local wind farms. This funding has been used to support both physical refurbishment and core staff costs. This funding has been instrumental not only in enabling the centre to expand and develop the services it provides to its users, but also in helping secure the jobs of staff working in the centre.

## 6.4 Community Owned Tourist Facilities

As discussed in section 2.2 the economy of the Local Area is heavily reliant on tourism. Although tourism is a relatively low productivity sector, its relative importance means it is important to maximise the benefits it generates by ensuring as much tourism expenditure as possible is retained within the Local Area.

This is a challenge other Highland communities have tried to address and there are various projects across the region that could be pointed to as examples of good practice. One example of this is the ongoing work of the Glengarry Community Woodlands, another is the Loch Ness Hub in Glen Urquhart.

### 6.4.1 Glengarry Community Woodlands

Glengarry Community Woodlands exists to advance sustainable community development, organise educational and recreational activities and advance environmental protection and improvement near Invergarry. The Trust was formed in 2016 after the community purchased a 31 hectare forest.

In 2022 the Trust expanded its holdings through the acquisition of two further areas of woodland on either side of the A87. The sites, which cover a combined area of 66 hectares, were acquired as an asset transfer from Forest and Land Scotland, using funds provided by the Scottish Land Fund.

The Trust intends to use the new sies to establish six woodland crofts and four to six new affordable homes, which will be delivered though a community-led project involving the Woodland Crofts Partnership and the Communities Housing Trust.

It has been designed to encourage young people and families to remain in the area by creating new opportunities to generate income through the sustainable management of local woodland. In this way it is hoped that the project will help repopulate the glen and improve long-term sustainability.

The Trust has is also in the process of developing bespoke woodland cabins to provide off-grid tourism accommodation for visitors to the area. The intention is that the cabins will provide a source of sustainable income that can be used to support the work of the Trust. The wider benefit of the accommodation is that it will create a reason for tourists to stop and spend time in the area, spending money in local businesses and helping support the livelihoods of local people.

### 6.4.2 Loch Ness Hub

Loch Ness Hub and Travel is a community benefit company based in Drumnadrochit, about 14 miles south of Inverness. The company provides baggage and shuttle transfers for visitors to the Great Glen. It also operates a visitor centre in Drumnadrochit, that offers e-bike hire, visitor information services and a shop.

Since it opened in 2021 the Hub has become the leading provider of baggage transfers for people completing the long-distance walking trails through the Great Glen. Located at the heart of Drumnadrochit the Hub provides a convenient stopping place for visitors traveling through the Great Glen (by whatever mode of transport). By giving people to stop in the village, it also helps ensure more visitor expenditure is retained within the local community.

The Hub is based in what was once a Tourist Information Centre owned by the Highland Council. Following a successful asset transfer the building was transferred to the Glen Urquhart Rural community Association (GURCA), a local development trust, in 2019. The primary intention at the time was to retain a facility within the village to provide visitor information and promote local attractions and businesses.

The need to generate an ongoing source of revenue to support the continued operation of the facility was recognised from the outset so when the opportunity arose to acquire Loch Ness Travel, an established local baggage handling business, it was seized with enthusiasm.

Loch Ness Hub ltd. was established to raise funds for the acquisition through a community share offer in 2020. The offer succeeded in raising its target, and with additional funding from SSE and Soirbheas (a local community charity), the purchase of Loch Ness Travel was completed in February 2021[18].

[18] For further detail see case study published by Loch Ness Hub and Travel https://www.lochnesstravel.com/wp-content/uploads/2025/02/About-Us-FINAL.pdf

## 6.5 Lessons and Implications

There are many examples of projects and potential projects across the Highlands and further afield that show how other communities have been able to tackle similar strategic challenges to those facing the Local Area. The examples described in this chapter are a snapshot of this wider activity. The projects highlighted were all delivered using bespoke models that, with sufficient funding and local support, could potentially be replicated in the Local Area.

A common theme connecting each of the models is that they involved professional third parties with relevant practical experience. This suggests that if there were an aspiration to establish something similar in the Local Area the starting point would be to identify an appropriate third-party delivery partner who may be willing to collaborate.

Another important theme is that the projects were all designed to benefit a wide geographic area rather than a specific local community. This probably reflects the nature of the delivery partners involved in the projects, each of which operate at a regional rather than purely local level. This implies establishing something similar elsewhere would likely require the involvement of a community body that could represent the interests of multiple communities across a wide geographic area.

# 7. Natural Capital Opportunities

This section describes the importance and extent of natural capital in the Local Area and highlights opportunities in four potential markets.

Natural capital is a term for the habitats and ecosystems that provide social, environmental and economic benefits to humans. The benefits to humans that are delivered by natural capital are known as ecosystems services.

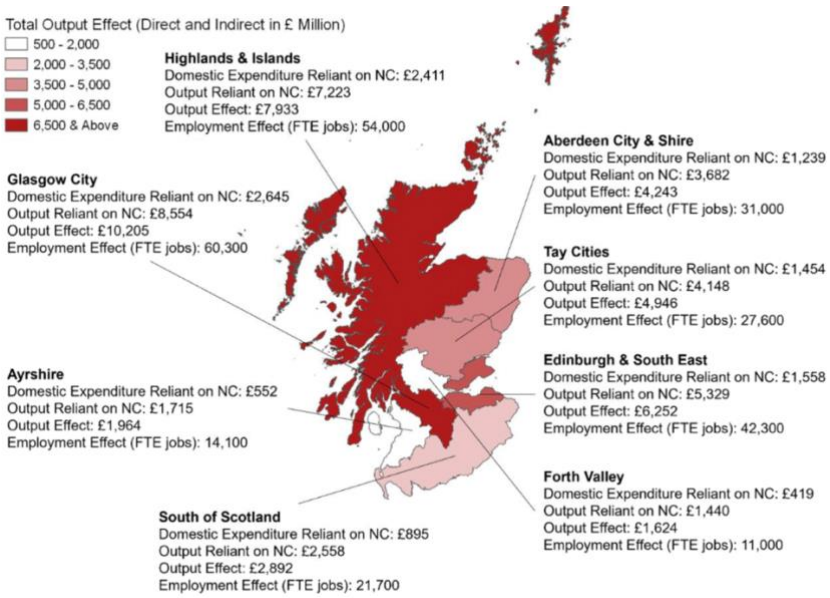
Individuals and society are increasingly realising the fundamental importance and value of natural capital. It has an economic value supporting many livelihoods including agriculture, forestry and fisheries, tourism activities and renewable energy. It also provides health and wellbeing benefits through access to nature. Yet it is the value of natural capital in environmental terms that is gaining most recognition and becoming increasingly monetised.

Formal evaluation of natural capital and ecosystem services continues to evolve and there are still significant gaps in terms of what can be measured. Some accounting systems for natural capital attempt to measure the value of natural capital in terms of its value to society, helping to understand its intrinsic value as an asset that underpins our economy and society. Scottish Government commissioned research determined the industrial sectors in Scotland that rely on high-quality natural capital and quantified the economic value of these nature-dependent sectors at a national and regional geographic level.

It is estimated that at least 14.4% of Scotland's total economic output is reliant on natural capital: supporting £40.1 billion of Scotland's total economic output, with around 261,600 jobs estimated to be supported by natural capital[19]. The Highlands and Islands has the largest shares of output and employment reliant on natural capital, and ecosystem services provided by key habitats in Scotland are concentrated here.

[19] Scottish Government, 2024. Natural Capital – importance to the Scottish economy: research

**Figure 7-1: Economic Reliance on Natural Capital**




Source: Scottish Government, 2024. Natural Capital – importance to the Scottish economy: research

The employment structure of the Local Area, shown in Table 2-1, illustrates the predominance of people employed in accommodation and food services activities and the agriculture, forestry and fishing sectors. The accommodation and food services sector generally relates to tourism activities which in the Local Area tend to be reliant on the natural environment, further emphasising the importance of natural capital to the area.

NW2045 has a Regional Land Use Partnership (RLUP), one of 5 pilot areas that were established by the Scottish Government in 2021 to help develop Scotland's approach to land use in support of the transition to carbon net zero by 2045. The NW2045 RLUP has been working towards the NW2045 Vision of land and natural capital of the area contributing to shared wealth and wellbeing and in 2022 it commissioned consultants to carry out a natural capital assessment of the area[20]. The purpose of this assessment was to better understand the state of assets and ecosystem services in the region and included mapping of habitats, biodiversity and carbon storage.

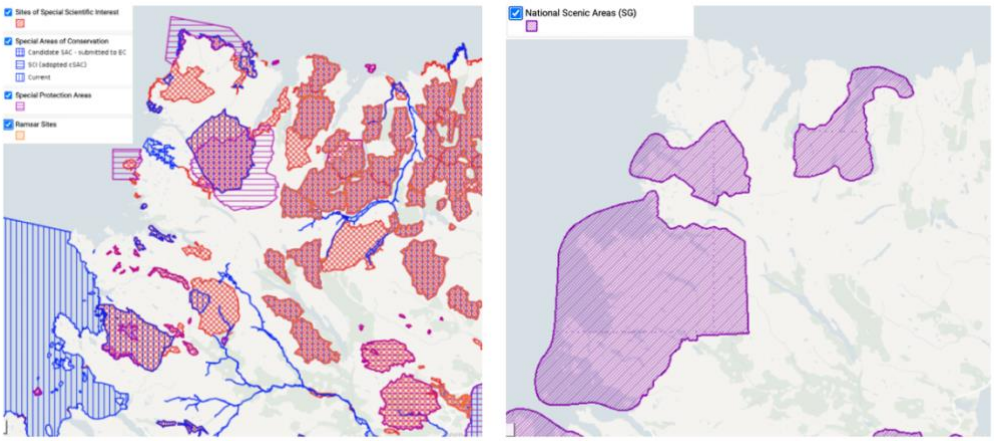
## 7.1 NW45 Habitats and biodiversity

As shown in Figure 7-2, numerous internationally recognised habitats cover the majority of the Local Area. A significant proportion of the area is also recognised for its outstanding scenic value with National Scenic Areas at Assynt-Coigach, North West Sutherland and Kyle of Tongue. The Local Area also includes the North West Highland Geopark which covers over 2,000 square kilometres and was awarded

[20] Assynt Development Trust on behalf of NW2045, October 2022. NW 2045: Natural Capital Assessment by SLR

UNESCO Global Geopark status in 2004 for its geological variety and because it hosts some of the oldest rocks in Europe.

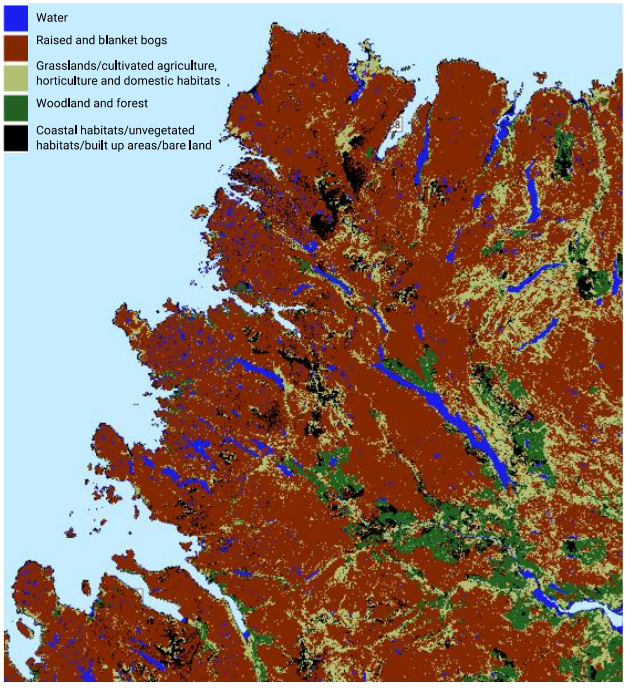
**Figure 7-2: Maps of Designated Sites**




Source: NatureScot SiteLink

Table 7-1 shows the main habitat types and also highlights the high proportion of scree and cliff, and inland surface water compared to other areas of Scotland. Two thirds of the land in the Local Area is heathland and bog with bogs most notably found in the east surrounding Tongue and heathland is predominantly spread across the west of the area. Woodland accounts for a small proportion of land cover within the Local Area - less than 5%, compared with 16% for Scotland as a whole. It is predominantly found in coastal or riparian areas, and a few plantation woodlands, but browsing by deer and sheep limits the extent of native woodland regeneration.

**Figure 7-3: Land Cover in NW45**



Source: NatureScot Maps: Scotland Land Cover Map 2022 EUNIS Level 1

**Table 7-1: Percentage of Habitats and Carbon Storage in the Local Area**

| Habitat type | Proportion of land cover(%)* | Proportion of Carbon storage (%)* |
|---|---|---|
| Built up land | <1 | <0.1 |
| Scree and cliff | 4 | <0.1 |
| Surface water | 4 | 0.22 |
| Arable land/bare fields | 4 | 0.1 |
| All woodland | 5 | 3.5 |
| Grasslands | 16 | 6.2 |
| Heathland & scrub | 37 | 15.4 |
| Bog | 31 | 74.6 |

*percentages may not add to 100% due to rounding and some habitats not listed as <1%

Source: SLR report to Assynt Development Trust 2022. NW2045: Natural capital assessment

The biodiversity assessment[20] shows that there is a high intrinsic value of existing habitats but also the potential to improve habitats. Most of the land area scores toward the upper end of the ranges of biodiversity calculated. This largely reflects the maximum distinctiveness values of the bog, mire and alpine habitats which dominate the area. Areas with lower scores include cultivated areas, commercial forestry and dry grasslands; native woodlands and heathland have intermediate scores. The biodiversity value within each different habitat type varies reflecting differences in habitat condition. This indicates that there is potential for biodiversity enhancement where nature conservation is the priority.

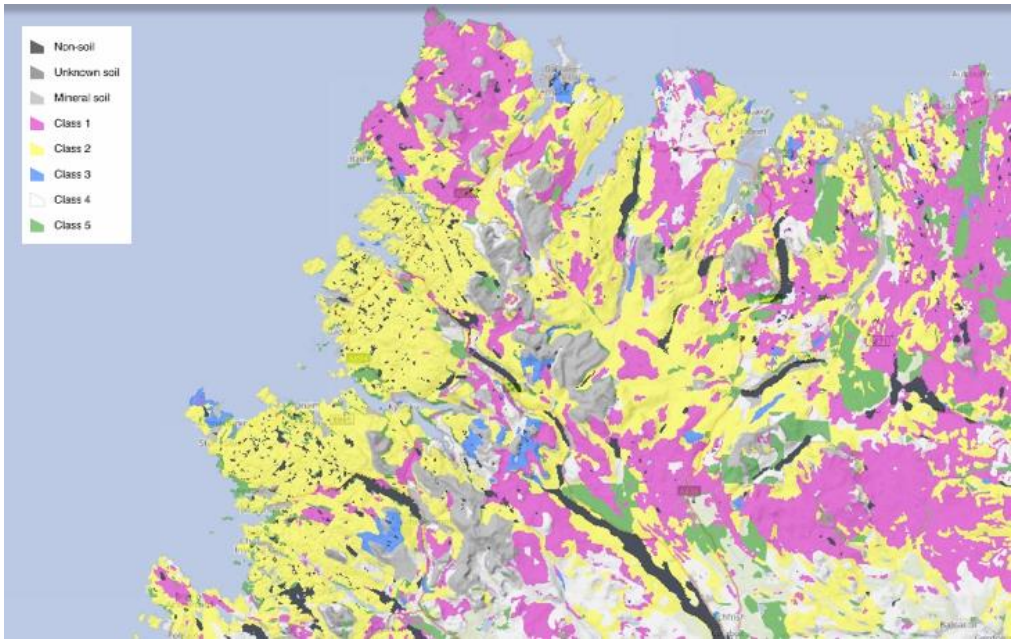
## 7.2 NW45 Carbon Capture and Storage

Although it constitutes less than a third of Local Area's land cover, 75% of the Local Area's carbon is stored in its peatlands (Table 7-1), with smaller amounts in heathland, grassland and woodland.

The carbon storage analysis for bogs[20] in the Local Area amounts to just over 51 million tonnes stored across 88,500 hectares, averaging 576 tonnes per hectare. This is based on the average depth of bog being one metre, which is a conservative estimate given that NatureScot's Peatland ACTION project found that the average depth across 195 projects in Scotland was 1.37 metres (including some nearby on The Moine that is up to six metres deep). The highest concentrations of carbon are stored in Class 1 peatlands (in purple at Figure 7-4) – these are nationally important carbon-rich soils, deep peat and priority peatland.

If the societal (non traded) value of one tonne of carbon dioxide equivalent (tCO2e), is valued at £248[21], then the estimated 51 million tCO2e stored within peatlands in NW45 is worth £12.6bn. This is for existing carbon stores.

**Figure 7-4: Carbon and Peatland 2016 Map**




Source: Scotland's Soils website

## 7.3 Natural capital markets

Markets have developed in response to regulatory and social pressures to mitigate climate change and prevent biodiversity loss. This is predominantly financed through offsetting - where a buyer pays for carbon credits that can be offset against their own carbon emissions or for biodiversity units to offset loss of habitats due to development activity elsewhere - helping buyers to meet regulatory requirements or voluntary sustainability goals. The market therefore currently pays for improving natural capital assets in areas with poorer biodiversity or where carbon storage is currently limited.

The true (societal) value of carbon storage and biodiversity is only partly reflected in market prices for carbon credits and biodiversity units, and incentives for maintenance of natural capital are currently not being delivered by mainstream markets. There is less focus, to date, on markets that maintain areas of existing high natural capital upon which, as shown in Figure 7-1, Highlands and Islands has the largest shares of output and employment reliance in Scotland.

[21] as used by the UK Government to appraise all projects and policies and set out in UK Department for Energy Security & Net Zero and UK Department for Business, Energy & Industrial Strategy, 2021. Policy paper: Valuation of greenhouse gas emissions: for policy appraisal and evaluation

The limitations of existing financing mechanisms are becoming increasingly recognised and new markets based on more wholistic ecosystems services are emerging.

### 7.3.1 Carbon credits

The carbon credits market channels money into projects that can actively sequester carbon such as peatland restoration or woodland creation. These projects help offset emissions from the buyer's activities with the aim of ensuring there is a net reduction in atmospheric greenhouse gas levels. Companies can use carbon units to report against UK-based emissions or to make claims about their net zero journey.

Critics of the carbon market accuse some companies of "greenwashing" – using carbon credits to avoid making genuine changes to their operations. There are also concerns about large corporations buying up Scottish land primarily to offset emissions elsewhere or where credits generated in Scotland are sold internationally. The market's impact on reducing emissions therefore depends on ensuring that credits represent real, additional and permanent reductions. It depends on the quality and integrity of projects and how well companies and industries reduce their emissions alongside purchasing credits. To address some of these issues the Peatland Code and Woodland Carbon Code have evolved to certify carbon credits.

In 2022 the average price of a peatland carbon unit was £23.95 and the average price for a woodland carbon unit was £23.30 in 2023[22], with broadleaved projects attracting a higher price than mixed or conifer only projects. Prices reflect supply and demand, as well as the nature and location of the units. These prices were for pending issuance units which is a promise to deliver a carbon unit in the future based on predicted carbon removal. A carbon unit is a tonne of carbon dioxide equivalent which has been removed from the atmosphere by a Peatland or Woodland Carbon Code project.

To estimate the amount of peatland in the Local Area that could potentially enter the carbon credit market it is necessary to assess peatlands that are degraded (e.g. drained, burned or overgrazed). These peatlands are currently contributing to carbon emissions and if restored would contribute to carbon sequestration. These are likely to be Class 2 peatlands shown in yellow at Figure 7-4.

There is also the opportunity to access the carbon trading market through managing and planting woodland to sequester carbon. However slow-growing trees, small woodland size, and highly organic soil mean opportunity for creating woodland carbon units will be relatively small compared to the opportunity for peatland restoration[23].

[22] UK Land Carbon Registry https://woodlandcarboncode.org.uk/uk-land-carbon-registry/uk-carbon-prices#wcc

[23] It is also important to acknowledge that who benefits from the returns to such projects varies significantly depending on the nature of the project involved.

### 7.3.2 Biodiversity units

A market in biodiversity units has developed because, from 2024, developers in England must ensure that projects deliver a biodiversity net gain of 10%. Where it isn't possible to enhance the natural habitat on site, the developer can instead purchase Biodiversity Units from elsewhere. The market operates in a similar way to the carbon credits market where only registered units can be traded.

Unlike England and Wales, Scotland has not followed the model of imposing a statutory requirement to deliver biodiversity net gain. Alternatively, the Scottish Government published a proposal to deliver biodiversity gain through the National Planning Framework 4 (NPF4) Policy 3b. This states that national and major developments, or those subject to Environmental Impact Assessment, will only be supported where it can be shown that they will conserve, restore and enhance biodiversity. The policy requires that such proposals demonstrate significant biodiversity enhancement, in addition to any proposed mitigation.

Some Scottish planning authorities, including the Highland Council, have adopted planning guidance to provide local guidance on biodiversity enhancement within their areas. The Highland Council Biodiversity Enhanced Guidance[24] requires a minimum 10% biodiversity enhancement. It is expected that land identified for off-site offsetting and enhancement should be located close to the development site and in all cases off-site enhancement will be delivered within the Highland Council area. Any trading market in the Highlands is in its infancy, although several schemes are beginning to appear for biodiversity markets.

By 2026 the Scottish Government aims to have fully tested options for a new ecosystem restoration code that would provide verification around investment in high-integrity ecosystem restoration and biodiversity initiatives[25].

### 7.3.3 Ecosystem service markets

Carbon and biodiversity markets operate in isolation and other markets are evolving that offer a more holistic ecosystems approach. Brokers are emerging to help bring together businesses who want to invest in effective Environmental, Social and Governance (ESG) policies with those that have natural capital assets to offer.

For example Landscape Enterprise Networks (LENS) is a marketplace for nature-based solutions that provides this service for businesses. LENS works by analysing the natural capital assets of a landscape scale area and quantifies local business' reliance on these. By knowing what ecosystem services that natural capital provides, LENS brings local businesses together to invest in the restoration of natural capital. It brokers negotiations, and eventually transactions, between buyers and groups of landowners who are in a position to deliver projects on the ground. This first began in Cumbria, where Nestle, United Utilities and First Milk provided £700,000 in funding for farmers to reduce phosphorus usage resulted in reduced

[24] Highland Council, May 2024. Biodiversity Enhanced Planning Guidance
[25] Scottish Government, November 2024. Natural Capital Market Framework

water purification for United Utilities, strengthened Nestles dairy supply, and provided an alternative income for farmers.

In Scotland, Leven LENS[26] aims to preserve and enhance the Leven catchment's natural assets. The It is identifying a strategy for long-term investments into measures to make the Leven landscape healthy and productive while benefitting the environment, boosting biodiversity and uplifting local communities. These include improving water quality, improving the resilience of crop production, meeting greenhouse gas emissions reduction targets, protecting nature and increasing biodiversity, mitigating flood risk, and protecting rivers and other bodies of water.

**Figure 7-5: Leven region landscape enterprise network**


Source: Landscape Enterprise Networks website

A broker doesn't need to be involved in these transactions and some ecosystem services financing is arranged directly by companies, looking to enhance ESG policies, with those who can deliver activities on the ground. For example, Pernod Richard became the first corporate partner to support IUCN's Agriculture and Land Health Initiative. The company has a global sustainability and responsibility strategy which includes nurturing the "terroir"[27] - working with partners to develop sustainable and regenerative agricultural practices within their own vineyards and beyond to help with carbon sequestration, biodiversity enhancement and community empowerment. This translates in Speyside to the company supporting practices that protect and enhance the river catchment and hence the water that is used in whisky.

There is not an obvious industry base in the Local Area that might be interested in brokering an ecosystem services approach and businesses further afield in Highland may have more local opportunities. However, given the international significance of the natural capital assets at stake in the Local Area, it wouldn't seem unrealistic to seek a global business partner that understood the macro parallels that could be drawn. In this context it is of note that research undertaken by the RLUP has included working with academics responsible for the LENS project.

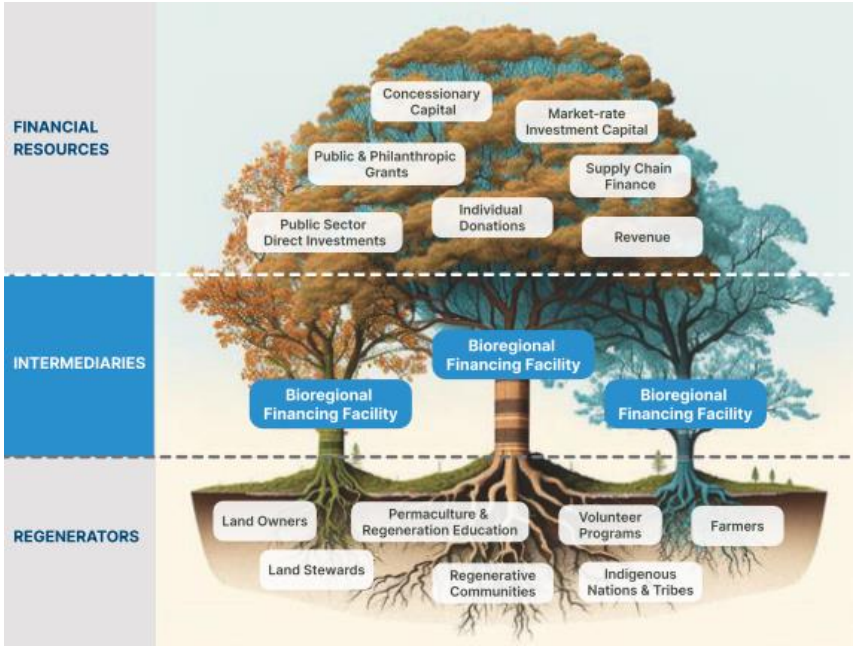
[26] https://landscapeenterprisenetworks.com/leven-scotland/
[27] https://www.pernod-ricard.com/en/sustainability-responsibility/nurturing-terroir

### 7.3.4 A Bioregion approach

As discussed above there is growing knowledge and capacity amongst businesses around biodiversity-related issues in relation to ESG policies - fuelled by regulatory requirements and in response to growing demands from investors.

However there is currently a lack of connection between those that hold and manage financial resources seeking regenerative impact, and the coalitions of actors on the ground capable of carrying out regeneration activities. Bioregional Financing Facilities (BFF) aim to facilitate the flow of resources and regeneration benefits between these two currently disconnected groups of actors. As shown at Figure 7-6 they provide a pathway for multinational corporations to enter into relationships with real places and people they are dependent on and are in turn impacting. They have the potential to become the connective tissue between financial resources and on-the-ground regenerators.

**Figure 7-6: Bioregional Finance Facility**




Source: Power and Seefeld, 2024. Bioregional Financing Facilities : Reimagining finance to regenerate our planet

Whilst BFF is a relatively new concept that enables decentralisation of financial resource and governance to enable financial capital to reach local people and initiatives, there is some evidence that companies are beginning to reach out for opportunities. Pioneering companies have started to adopt the Taskforce on Nature-related Financial Disclosures reporting[28] which enables business to incorporate

[28] Taskforce on Nature-related Financial Disclosures was founded by Global Canopy, United Nations Development Program (UNDP), United Nations Environment Program Finance Initiative (UNEP-FI) and WWF. Organisations committed to making TNDF disclosures can be found here https://tnfd.global/engage/tnfd-adopters-list/

nature-related risks and opportunities into their strategic planning, risk management and asset allocation decisions.

During the course of this study the RLUP was keen to highlight that the NW2045 natural capital proposition will be based on the opportunity to generate community wealth. NW2045/RLUP is (or could define itself as) a high-integrity high value natural capital project. It is community-led with strong governance. It could appeal to investors who have a growing concern about the social impacts of natural capital projects or those with a policy focus on ensuring social benefit. The Local Area is also a good example of a bioregion as it is defined by ecological, geographical, and/or cultural boundaries as opposed to human-made, jurisdictional ones. There is potential for NW2045/RLUP to become a Bioregional Financing Facility connecting financial resources to on-the-ground natural capital projects, enabling the delivery of finance for natural capital projects to be retained and spent in the Local Area and to ensure that economy, skills base, capacity and self-reliance can grow. It would need to raise capital from a variety of sources (grants, philanthropic, companies) to flow to aggregated portfolios of coordinated projects on the ground. In return, natural and social capital benefits would be articulated back to investors in a community-determined, non-extractive way.

This type of approach is endorsed in a recent report to Scottish Environment LINK[29] which recommended utilising the potential of RLUPs to influence high integrity private investment in nature, including through opportunity mapping and in aggregating smaller projects into larger scale opportunities. The Scottish Government is committed to developing a values-led, high-integrity market for responsible investment in natural capital[25] and NW2045 RLUP has been a recipient of FIRNS[30] funding which is aimed at exploring integrated approaches to land-management.

Research and development continues to inform and assist those on the ground, for example NatureScot is leading the development of a tool designed to support a natural capital approach to land management at the landscape scale. According to the Scottish Government's Natural Capital Market Framework[25], in 2025 NatureScot will produce a prospectus of landscape scale nature restoration projects in Scotland, informing investors of Scotland's priority landscape-scale nature restoration projects and attracting investment to them.

## 7.4 Summary/Next steps

The Local Area has valuable and internationally recognised natural capital assets, notably in high value peatland and heathland habitats with significant carbon stores. Landowners, and crofters, in the area have the potential to capture income from trading of carbon units generated through the restoration of peatland. They also have

[29] Scottish Environment LINK, January 2025. The future of strategic land use planning by Brady Stevens at SAC Consulting.
[30] The Facility for Investment Ready Nature in Scotland

the potential to enter the biodiversity net gain market which is currently evolving in Scotland.

However, the work of the RLUP aims to create community wealth that draws on a tripartite relationship between community, landowner/crofter and investor. This lends itself to the evolving markets in ecosystems services (either through a broker or direct marketing) or to a more tailored hands-on solution akin to becoming a Bioregional Financing Facility. An investor(s) is needed to progress either of these approaches. This could be through investment in ecosystem services provided to industries in the Highlands or via a progressive international company whose values and aspirations identify with NW2045. There may be companies that have links to NW2045 or ones that resonate with the Scottish Highlands, tourism or the image of the North West.

NW2045 through its RLUP is at the forefront of developing new approaches to investment in natural capital in Scotland. Investors need to be made aware of the magnitude and international significance of the Local Area's natural capital assets so they can align them with their own ambitions.

To summarise there are 5 options available to the Local Area, these are not mutually exclusive, and potentially all 5 could be pursued:

1. peatland restoration - to generate carbon credits, build skills locally, bring income, demonstrate activity, and pilot governance structure; with a view to doing something more sophisticated in future;
2. develop a portfolio of biodiversity units ready to sell;
3. seek a broker (or direct buyer) for ecosystem services; and
4. continue to explore a values-led, high-integrity market for responsible investment in natural capital; and
5. investigate how a bioregional financing facility may facilitate NW2045's aspirations.

BiGGAR Economics, Shandwick House,
67 Shandwick Place, Edinburgh, Scotland EH2 4SD

info@biggareconomics.co.uk

biggareconomics.co.uk