



# Position Statement on Landscape and Resilience to Environmental Challenges

September 2020



Scotland's  
Landscape  
Alliance





# About Scotland's Landscape Alliance

Scotland's Landscape Alliance (SLA) is a grouping of over 60 organisations with a common interest in raising awareness of the importance of Scotland's landscapes to climate resilience and nature, our economic performance and public health and wellbeing and, in doing this, gain public and political support for the better care of Scotland's landscape and places to maximise future benefits.

Our vision is a Scotland where the benefits of landscape are recognised, and where landscape is designed and cared for to strengthen its role in delivering Scotland's national outcomes, the UN Sustainable Development Goals and the principles of the European Landscape Convention.

The purpose of this paper is to set out the Scottish Landscape Alliance's view on the role of landscape in respect of increasing our resilience to the environmental challenges we face in Scotland and globally. It is informed by the work of SLA members.

## Key Messages

- Globally, we are facing existential challenges relating to our climate, biodiversity and the overall 'health' of our environment. The Scottish Government recognised a global Climate Emergency in 2019 and clearly highlighted the links between climate change and the biodiversity/ecological crisis.
- These challenges are interconnected and interdependent and both act upon and are influenced by our landscapes.
- Diverse, high quality, well designed and well managed landscapes have the potential to deliver climate change mitigation and adaptation; to increase the resilience of our communities and businesses to the impacts of climate change and to protect and enhance nature
- Collaborative, empowering approaches to placemaking and to local decision making will further support community resilience in the face of these environmental challenges
- Place-based/landscape approaches to land use planning and management offer the potential to reduce land use conflicts (particularly between traditional land uses and new climate change interventions) and to deliver sustainable long term solutions



# Understanding the Issue

## What do we mean by landscape?

*Landscape is about the relationship between people and place. It provides the setting for our day-to-day lives and is an important part of the quality of life for people everywhere: our urban areas, countryside, coasts and waterways, in areas recognised as being of outstanding beauty, as well as everyday spaces. Landscapes are an essential component of people's surroundings, an expression of diversity of our shared cultural and natural heritage and a foundation for identity, now and in the future*

## What are the environmental challenges we are facing?

Both in Scotland and globally we are facing a series of interconnected and interdependent challenges relating to our environment. While these challenges are environmental in nature, they have wide ranging social and economic consequences. The challenges can be summarised as:

### The Climate Emergency

In her statement to the Scottish Parliament on 14 May 2019 the Climate Change Secretary, Roseanna Cunningham, highlighted the need for urgent action on climate change.

*'There is a global climate emergency. The evidence is irrefutable. The science is clear. And people have been clear: they expect action. The Intergovernmental Panel on Climate Change issued a stark warning last year: the world must act now. By 2030 it will be too late to limit warming to 1.5 degrees.'*

The relationship between climate change and landscape is complex. For example:

Existing land management methods generate carbon dioxide and other greenhouse gases directly (through the use of machinery and methane emitted by livestock, for example) and indirectly (e.g. through the effects of soil and peat erosion).

Climate change is changing the crop species which can be grown in Scotland – reducing the viability of traditional species and varieties but also opening up new opportunities. It is also increasing the risks associated with invasive non-native species, pests and diseases.

The increasing severity of climate incidents – storms, flooding, coastal erosion and droughts – brings new and/or increased risks to historic and traditional landscapes and requires new landscape approaches to adapt to climate change.

Landscapes are always changing but the responses we need to have in place to tackle the climate emergency will increase both the pace and scale of change. Great care is needed to ensure that these changes are made sustainably and equitably so that no section of Scottish society suffers unfairly from the effects of climate change and of climate change action.

## The biodiversity crisis

The 2019 Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) Global Assessment Report stated that:

*'Nature and its vital contributions to people, which together embody biodiversity and ecosystem functions and services, are deteriorating worldwide.'*

*'Direct and indirect drivers of change have accelerated during the past 50 years'*

*'Goals for conserving and sustainably using nature and achieving sustainability cannot be met by current trajectories, and goals for 2030 and beyond may only be achieved through transformative changes across economic, social, political and technological factors'*

*'Nature can be conserved, restored and used sustainably while other global societal goals are simultaneously met through urgent and concerted efforts fostering transformative change.'*

Closer to home, the Scottish section within the State of Nature 2019 Report<sup>1</sup> states that:

*'Our data show that the abundance and distribution of Scotland's species has on average declined over recent decades and most measures indicate this decline has continued in the most recent decade. There has been no let-up in the net loss of nature in Scotland.'*



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<sup>1</sup> The State of Nature partnership consists of over 70 partners drawn from conservation NGOs, research institutes, and the UK and national governments. The State of Nature 2019 report uses data collected by tens of thousands of expert volunteers. These data are analysed using rigorous statistical methods to report on the state of nature across the UK and in the UK's Crown Dependencies and Overseas Territories and at the scale of the UK's constituent nations

The Scottish Government's 2020 Environment Strategy highlights the following pressures on ecosystems and biodiversity in Scotland:

- pollution;
- land use intensification and modification;
- spread of invasive species and wildlife disease;
- lack of recognition of the value of nature;
- disconnection with nature;
- climate change; and
- marine exploitation.

## **The relationship between the climate emergency and the biodiversity crisis**

In her 14 May 2019 statement to the Scottish Parliament, the Climate Change Secretary emphasised the link between climate change and the wider ecological crisis:

*'Last week another UN body, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, issued a warning about the damage human beings are causing to the planet. It finds that the drivers of damage have accelerated over the past 50 years. Climate change is one of the top three causes.'*

## **Environmental condition**

We are facing a series of challenges relating to the quality and condition of soils, peat, water and air. These are all impacted by climate change and have the potential to worsen the impacts of climate change. Degraded soils and pollution events reduce productivity of land and waters and are detrimental to biodiversity and landscape quality.

For more on degraded landscapes, see the Landscape, Land Use and Economy Position Statement on the SLA website.





# What can landscape do to increase resilience to environmental challenges?

## Climate emergency

Changes to current landscape management offer opportunities for:

### **Mitigation**

- increasing carbon sequestration through (for example): woodland creation; peatland restoration; improving the health and condition of coastal and marine ecosystems ('blue carbon');
- reducing carbon emissions by (for example): providing appropriate locations for renewable energy and heat generation technologies; decarbonising land management techniques; minimising the erosion of peat and other carbon rich soils; facilitating active travel; reducing the distances people need to travel for work and leisure; ameliorating micro climates in urban areas (and thereby reducing heating and cooling costs).

### **Adaptation**

- reducing the likelihood, and impact of, flooding by (for example): naturalising water courses; reducing flow rates in the upper sections of river catchments; restoring wetlands and peatland; developing natural flood attenuation in urban and rural settings; creating more natural and dynamic coastal and wetland systems which reduce the impact of coastal erosion and accommodate flooding in areas where damage is minimised and developing green sustainable drainage infrastructure to reduce the impact of surface water on existing drain and sewer systems;
- reduce the impact of increasing urban temperatures through the provision of greenspaces, street trees and other green infrastructure to create cooling microclimates around buildings (these will also have an impact on air quality which may be exacerbated by increased temperatures);
- providing shelter to buildings, livestock etc. to reduce the damage caused by extreme weather.

## Note on climate resilience

The adaptation actions outlined above will increase the physical resilience of ecosystems, landscapes, settlements and buildings but it important to remember that community resilience is also needed. There is evidence both from climate change work and from urban regeneration that if people are engaged and empowered within local decision making and action they are more likely to:

- develop solutions which are better suited to local context and conditions;
- make connections which may be missed by professional stakeholders;
- better understand risks and proposed solutions; and
- cope better and recover more quickly when challenging events do occur.

This is one of the key reasons why we advocate working collaboratively with communities and other local stakeholders and applying the Place Principle to decision making and planning processes.

## Biodiversity

The design, management and maintenance of landscapes has the potential to impact positively or negatively on biodiversity. Many of the challenges faced by Scotland's fauna and flora are the result of (or are exacerbated by) intensive or single function land uses.

Conversely, landscapes can be designed and managed to enhance biodiversity through:

- the development of more wildlife friendly and sustainable approaches to land use;
- the protection and enhancement of key habitats and sites;
- the creation of new biodiverse areas;
- allowing space for natural processes that create habitats, such as river bank erosion
- the creation of wider ecological networks which:
  - reduce habitat fragmentation;
  - allow wildlife to move through our urban and rural areas; and
  - increase the resilience of wildlife populations (this latter is also an important aspect of climate change adaptation).

## Reducing the potential for land use conflicts

While not an environmental challenge in its own right, we must recognise that the land use changes which will be needed to sequester more carbon, reduce flood risk, increase habitat connectivity etc. have (if introduced without sufficient thought and care) the potential to place restrictions on other land uses and impact negatively on wider landscape character and quality. The 2018 IPCC Special Report on Global Warming of 1.5C further highlights the potential for climate change action to impact on other land uses and on ecosystems:

*'Afforestation and bioenergy may compete with other land uses and may have significant impacts on agricultural and food systems, biodiversity, and other ecosystem functions and services'*

Starting from a landscape perspective, working collaboratively with communities and other local stakeholders and applying the Place Principle to decisions about land use is likely to lead to more sustainable, multifunctional and equitable results.





# What the SLA is going to do about the issue

Tackling the linked environmental challenges of climate change, biodiversity loss and environmental condition is a priority for Scotland.

## **We will encourage our members to:**

1. Develop and implement a strong communications strategy (informed by evidence) targeted at key decision-makers.
2. Consider how their property and land can be managed and used to improve Scotland's resilience in the face of environmental challenges.

## **What we are asking stakeholders to do?**

3. Define appropriate landscape standards to deliver resilience outcomes.
4. Develop and report on national indicators for landscape within the National Performance Framework
5. Ensure that decisions affecting local landscapes are taken collaboratively with local communities given an equal voice and influence
6. Promote and support programmes that recognise, accredit and reward good practice in respect of design, delivery, management and use of landscape.
7. Use the Place Principle as a key tool in land use planning and decision making
8. Provide advice, guidance, expertise and challenge to ensure climate change, nature and community resilience outcomes are incorporated into relevant place/landscape policy.
9. Establish appropriate revenue budgets to significantly improve the management of public landscape assets.
10. Provide suitable training and equitable pay and conditions to support and retain committed land-based workers.
11. Establish the proper management and effective use of landscape with respect to climate change and nature as a statutory function for the public sector and a key requirement of all landowners.





# Contact Us

For further information on the SLA or to discuss how you can work with the SLA to collaborate and delivering a sustainable environment through landscape and greenspace please contact:

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# Supplementary Information

The Position Statement and supporting documents will be reviewed and updated annually.

## **Climate change mitigation**

The IPCC defines climate mitigation as:

*'A human intervention to reduce the sources or enhance the sinks of greenhouse gases'.*

## **Climate change adaptation**

The IPCC defines climate change adaptation as:

*'In human systems, the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities. In natural systems, the process of adjustment to actual climate and its effects; human intervention may facilitate adjustment to expected climate'.*

## **Climate resilience**

The IPCC defines resilience as:

*'The ability of a system and its component parts to anticipate, absorb, accommodate, or recover from the effects of a hazardous event in a timely and efficient manner, including through ensuring the preservation, restoration, or improvement of its essential basic structures and functions'.*

## **Biodiversity**

The 2020 Challenge for Scotland's Biodiversity defines biodiversity as:

*'The totality of life on earth: the variety of species, including the variation within species, the living systems they form, and the natural processes with which they interact'.*



# References

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