

SCOTTISH BIODIVERSITY STRATEGY BRIEFING (2)

Taking Nature Networks from commitment to delivery

Summary

We need to act urgently and decisively to deliver Nature Networks in Scotland as they are a critical factor in our response to the climate and nature emergency. In addition, they will deliver multiple benefits for people and nature and we have an opportunity to learn from experience elsewhere.

The Scottish Wildlife Trust believes there are six priority areas for action if Nature Networks are to be taken forward in an effective and timely manner in Scotland:

- i. **Leadership** – There is an important role and opportunity for Nature Scot to lead on strategic thinking, championing, coordination and successful role out of Nature Networks.
- ii. **National coordination** – Biodiversity does not respect local boundaries. National level coordination, dovetailed with local bottom-up approaches will ensure all opportunities are realised.
- iii. **Guidance for local authorities** - The current draft National Planning Framework 4 requires the creation of Nature Networks. However, there is a clear gap between this expectation and the guidance made available to planning authorities
- iv. **The Edinburgh Nature Network** is a tried and tested blueprint that can be rolled out nationwide and embeds community engagement at the heart of the process.
- v. **Set a reporting requirement** - The draft National Planning Framework 4 omits any mention of reporting duties in relation to Nature Networks. It is important to make sure planning authorities are clear about where and when different elements of the Nature Network are to be completed and where they are to be submitted for review.
- vi. **Establish new funding streams** - Creating local Nature Networks would require additional investment. Our estimates based on the experience with the Edinburgh Nature Network indicate that c. £1.6m p.a. for two years would provide enough funding to allow the other 31 authorities to get their Nature Network to the same position as that in Edinburgh. This funding is needed urgently and should be provided from central funds by Scottish Government. Additional funding mechanisms are available – such as the Infrastructure Levy – to ensure the next phase of development can be funded and that private sector investment can be unlocked.

Introduction

Scottish Government has recognised that the climate and nature crises together “are the greatest threats facing people and the planet”. Which highlights just how important this year’s Scottish Biodiversity Strategy will be for nature and our wellbeing. The consultation on the vision and outcomes for the strategy states that by 2045 the Scottish Government expect that: *“On land, Nature Networks at landscape scale demonstrate widespread increasing resilience and health of species and habitats, and increases in carbon sequestered across ecosystems”*. In order to achieve this by 2030 they have stated that they will need to have *“Spatially identified Nature Networks which are widespread and embedded in land use planning and management”*.

It is vital that we take Nature Networks forward and make them tangible. The draft National Planning Framework 4 carries forward the commitment to enact Nature Networks by effectively requiring Planning Authorities to facilitate *“the creation of Nature Networks and strengthening connections between them to support improved ecological connectivity; through the creation of new or restoration of degraded habitats; and, through measures to increase populations of priority species”* in Development Plans. But these these commitments, which have existed in one form or another for a decade, mean very little without meaningful delivery.

If we are to move forward in Scotland on these vital commitments for nature, climate and people then we urgently need to act. This briefing sets out why the four reasons why the time for action is now and then goes on to set out the six key actions needed in Scotland.

Why we need to act urgently and decisively

i. We face a nature and climate emergency

The Scottish Government, NatureScot and Scottish Environment LINK agree that we are in a nature and climate crisis^{ii,iii&iv}. This is evidenced by the NatureScot endorsed State of Nature Scotland Report 2019, which showed that 1 in 9 species is at risk of national extinction^v, and research from RSPB that puts Scotland 28th from the bottom in the Global Biodiversity Intactness Index^{vi}.

The seminal Dasgupta Report on the Economics of Biodiversity sets out that *“Nature recovery is within our grasp: we know what to do and how to do it. The time to act is now!”*. The urgency could not be more apparent, with UN Secretary-General António Guterres highlighting in December 2020 that *“making peace with nature is the defining task of the 21st century. It must be the top, top priority for everyone, everywhere”*. He has repeatedly called on policy makers and leaders to change course from our current practices of exploiting nature and in June this year went as far as to call for them to cease the *“senseless and suicidal war against nature”*.

ii. Nature Networks are essential if we are to address the interlinked emergencies

Nature Networks are defined the draft National Planning Framework 4^{vii} as:

“a joined-up system of places important for wild plants and animals, on land and at sea. It allows plants, animals, seeds, nutrients and water to move from place to place and enables the natural world to adapt to change, providing plants and animals with places to live, feed and breed. Effectively functioning nature networks will connect existing nature rich areas through habitat corridors, habitat ‘stepping stones’ or habitat restoration areas.”

Nature Network is taken to mean the same thing as ecological networks in this document further reading on Nature Networks can be found in the Scottish Environment LINK Nature Network paper^{viii}.

A wide range of evidence tells us that delivering Nature Networks and improving connectivity is critical to addressing the nature and climate crisis^{ix}.

Globally, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) report specifically proposes *“expansion and strengthening of ecologically representative, well-connected protected-area networks and of other effective area-based conservation measures”* as a policy intervention to tackle the five main drivers of biodiversity decline.^x The International Union for Conservation of Nature (IUCN) agree that *“improving or sustaining connectivity is key for the effective conservation and management of biodiversity.”*^{xi}

At a UK scale Sir John Lawton's "Making Space for Nature" Review^{xii}, was set up to look at wildlife sites capability to respond and adapt to the growing challenges of climate change and other demands on land use. It stated that "*Ecological networks have become widely recognised as an effective response to conserve wildlife in environments that have become fragmented by human activities.*" It concluded that, in England, wildlife sites did not comprise a coherent and resilient ecological network and would not be able to cope with future stresses.

In Scotland NatureScot have commissioned new work which aims to build on the Lawton Review and they have set out that "*connectivity will be even more crucial as climate change takes hold and species are forced to seek out new areas with the right climatic conditions*".^{xiii}

iii. Nature Networks will deliver multiple benefits for people and nature

We know that nature can provide multiple solutions to the most pressing problems we face as a society^{xiv}. The services that we get from nature are commonly known as ecosystem services and cover wide range from air and water purification to temperature and flood regulation to pollination. Broadly speaking the healthier an ecosystem is the greater the flow and diversity of services it provides.^{xv & xvi} Functional connectivity is a key attribute of ecosystem health.^{xvii}

The greater overall functional ecological connectivity we can provide the greater our return from Nature-based Solutions will be overall. For example, planting individual ad-hoc trees will provide some carbon and shading benefits. If we plant those same trees with ecological coherence in mind under a Nature Network approach with more nuanced spatial planning we can increase the biodiversity, climate, flood mitigation and mental health benefits they provide for us.

An important step in planning a nature network is to identify the capacity and demand for ecosystem services. Through consultation with the wider community, it is also possible to identify the actions that would connect up and improve the areas across the locality. When this is combined with geographical data, the local knowledge and practical considerations help identify the best opportunities for Nature-based Solutions and the multiple benefits they can provide for local communities.

iv. We can learn from the experience elsewhere

We are far from the only country thinking about the vital need for greater ecological coherence and the need to plan more effectively. The European Biodiversity Strategy for 2030^{xviii} notes that "*Global efforts are needed [to adequately protect and restore nature] and the EU itself needs to do more and better for nature and build a truly coherent Trans-European Nature Network*". It goes on to explain that "*in order to have a truly coherent and resilient Trans-European Nature Network, it will be important to set up ecological corridors to prevent genetic isolation, allow for species migration, and maintain and enhance healthy ecosystems*".

There are region and country wide examples from around the world of nature networks^{xix}, notably in Netherlands^{xx&xxi}, Spain^{xxii} and the Baltics^{xxiii}. A multitude of approaches are taken and each is specific to the needs of the country/region. What is notable though is that there has been a realisation in each of these approaches that scale and connectivity are key. Working in "islands" or "patches" is not enough to reverse ecological decline.

In England the 25 Year Environment Plan brought forward a major commitment to "*Develop a Nature Recovery Network to protect and restore wildlife, and provide opportunities to re-introduce species that we have lost from our countryside.*"^{xxiv} This has been developed to deliver on the recommendations of the Professor Sir John Lawton review around the need for more habitat, in better condition, in bigger patches which is better connected^{xxv}.

Nature Recovery Networks take an opportunity mapping approach, which would involve using GIS software to show where the greatest opportunities are for ecological restoration. This allows targeted action and investment, and the ability to integrate funding streams, connect top-down statutory commitments with local action & delivery and connect delivery partners.

Nature Recovery Networks in England went through a pilot phase between August 2020 - May 2021. These were broadly thought of as being successful and produced a statement of biodiversity priorities and a habitat/opportunity map linked to this for each area.^{xxvi} DEFRA then consulted on the strategy for rolling these out across England to form the National Nature Recovery Network.

The “lessons learned” document produced for the English Pilots^{xxvii} are extremely useful to consider in Scotland. The below are the lessons most relevant to our situation:

- Strong leadership and transparency from the responsible authority was crucial in getting others involved from the outset
- Responsible authorities have to draw on partners to give them the capacity and expertise they need
- There is a need for guidance on what data responsible authorities should ideally be seeking to use to prevent Local Nature Recovery Strategy partnerships spending too long gathering data
- Assessing habitat quality was difficult due to a lack of recent data - similarly, trend data for some species and habitat types were hard to ascertain
- Early engagement of a wide range of people and organisations is crucial to secure genuine engagement - effective collaboration takes time
- Establishing a common understanding of the purpose of LNRSs and the process with all stakeholder groups is essential to gathering constructive inputs
- The prototypes maps will appeal to a range of potential end users as they cover a broad set of potential environmental benefits
- LNRS products should look to achieve consistency across boundaries to make it easier to use more than one at a time
- certain end users require specific guidance on how to use the LNRS products for their means, such as planners or land managers

The six priorities for action in Scotland

The Scottish Wildlife Trust believes there are six priority areas for action if Nature Networks are to be taken forward in an effective and timely manner in Scotland.

i. Leadership

Learning from experience elsewhere suggests that there is an important role and opportunity for Nature Scot to lead on strategic thinking, championing, coordination and successful role out of Nature Networks.

At present stakeholders, delivery partners, planning authorities and funders are unclear on the way forward. This vacuum is creating confusion when we need clarity. There is a role for NatureScot to help navigate this complex policy environment and provide clear advice to Ministers, delivery partners and stakeholders.

The planned Commissions may have a useful function for engaging experts/stakeholders but ultimately we have been working on the concept of Nature Networks for over a decade. This leadership role must also include advocating for and galvanising urgent action with a key focus on delivery.

ii. National coordination

The Scottish Wildlife Trust and Scottish Environment LINK have previously outlined the need for national coordination of local Nature Networks, as biodiversity does not respect borders. The simplest way to do this is to designate a National Nature Network as a national development in National Planning Framework 4. This follows precedents set by the National Active Travel Network and the Central Scotland Green Network, both of which cover large geographic areas.

This national coordination would dovetail with the planned bottom-up approach of local Nature Networks but guidance, support, technical expertise and oversight could be provided by Nature Scot as a lead agency. This would also represent a more efficient approach and prevent each of the 32 local authorities taking a different approach or failing to join up with neighbouring networks.

Leaving planning authorities to operate in a vacuum without such coordination will mean we fail to maximise the benefits of Nature Networks at this critical juncture.

iii. More guidance for local authorities

The current draft National Planning Framework 4 requires the creation of Nature Networks. However, there is a clear gap between this expectation and the guidance made available to planning authorities. From our anecdotal discussions with planning authorities, it appears they do not know what is expected of them.

We would like NatureScot to take the lead and take forward clear guidance to aid planning authorities. The National Planning Framework 4 should be more specific with regards to Nature Network requirements and clearly signal that guidance will be forthcoming.

iv. Use the tried and tested approach piloted in Edinburgh

The Edinburgh Nature Network^{xxviii} is a blueprint that can be replicated elsewhere and rolled out nationwide. This Nature Network was created by applying the environmental decision-making process outlined in the Ecological Coherence Protocol^{xxix} and has also been used in the Inner Forth project^{xxx}.

The Protocol meshes an opportunity mapping-based approach with a participatory community focused approach with three key steps:

- a. Create maps showing the different types of habitat that can be found across the area
- b. Model the capacity and demand for ecosystem services
- c. Consultation workshops with a range of experts and community residents to inform and identify the best actions.

This already tested approach, developed as part of the Thriving Green Spaces Project (funded by Heritage Fund and the National Trust) would allow us to make rapid progress on Nature Networks in Scotland.

v. Set a reporting requirement

The draft National Planning Framework 4 omits any mention of reporting duties in relation to Nature Networks. It is important to make sure planning authorities are clear about where and when different elements of the Nature Network are to be completed and where they are to be submitted for review. The opportunity mapping approach we advocate would allow continual refinement and improvement which should include a cycle of reporting.

The Biodiversity Reporting Duty brought in by the Wildlife and Natural Environment (Scotland) Act 2011 requires public bodies to produce a publicly available report on their biodiversity related activities but

has largely been unsuccessful. There is no real reporting duty attached and no enforcement for non-compliance and we must learn from this.

vi. Establish new funding streams

Funding is critical to success but it must be looked at in conjunction with the efficiency savings and benefits that Nature Networks will deliver. We know the benefits of investing in nature, it has massive return across social, economic and environmental metrics in a Scotland specific context^{xxxix,xxxii andxxxiii}. As an example a review of a wildlife and nature activity programme in Perth and Kinross, as an alternative form of rehabilitation support, produced an estimated “profit” of £12.43 for each £1 spent i.e. a social return on investment of £1: £12.43^{xxxiv}.

Creating local Nature Networks would require additional investment. Our estimates based on the experience with the Edinburgh Nature Network indicate that c. £1.6m p.a. for two years would provide enough funding to allow the other 31 authorities to get their Nature Network to the same position as that in Edinburgh. This funding is needed urgently and should be provided from central funds by Scottish Government.

However, additional funding will be required beyond this two year period. The Infrastructure Levy detailed in section 5 of the Planning (Scotland) Act and associated Schedules “is a levy— (a) payable to a local authority, (b) in respect of development wholly or partly within the authority’s area, (c) the income from which is to be used by local authorities to fund, or contribute towards funding, infrastructure projects.” Both green and blue infrastructure are included in the definition of infrastructure in the Planning Act and regulations should be brought forward to implement the levy now and local authorities urged to prioritise use of the revenues for the development of Nature Networks.

The Resource Spending Review sets out that of the £660m in income from ScotWind there is £210m of ScotWind legacy investment in 2026-27 “to secure lasting benefit for communities” including from tackling the biodiversity crisis. This funding can provide another vital source of investment in Nature Networks and finance their continued development.

The current 2022-23 budget for agricultural environment measures in Scotland is 35.8 million in Pillar 2 and £142m for “Greening” measures in Pillar 1 . After 2023 we also know at least 50% of future direct payments will be conditional on delivering environmental and climate outcomes and that the Scottish Government want a support framework that delivers high quality food production, climate mitigation and adaptation, and nature restoration.^{xxxv}

To achieve this ambitious aim we need greater coordination of environmental spend as part of the overall reform that is coming to agricultural subsidy. Nature Networks would identify the best options for “co-operative action” at scale, for example riparian planting, habitat networks and invasive non-native species eradication. These important actions for farmers would provide the “backbone” of local Nature Networks.

Once initially funded and established Nature Networks would then be able to act as an effective filter or “lens” to view other green and blue infrastructure investments. Combined with the Regional Land Use Frameworks this provides an effective way to consider other land use priorities and map the best areas for action and progress.

There is massive potential for private sector investment in Scotland’s natural capital and it is acknowledged that this private sector funding is vital. The Scottish Government also want this private sector funding, amongst other things, to:

- Deliver integrated land use
- Demonstrate engagement and collaboration
- Deliver public, private and community benefit
- Be of high environmental integrity

Without “filtering” investments through the lens of a Nature Network with emphasis on community involvement achieving these aims will be incredibly difficult.

The Route Map to £1bn from the Scottish Conservation Finance Project shows how we can bridge the dramatic gap between the need for funding to protect and restore the world’s vulnerable ecosystems, and the level of funding available. In this document, developed by SEPA and the Scottish Wildlife Trust, 11 investment and funding models to help close this gap are showcased, several of which could be used for additional investment in Nature Networks.^{xxxvi} Further work can be found on the Scottish Forum on Natural Capital Nature Finance Pioneers site.^{xxxvii} Private sector funding is certainly not a panacea and, particularly at the start of the process, there is a need for public investment.

Large investors in biodiversity projects, for example National Lottery Heritage Fund, have called for greater coordination of projects in their Strategic Funding Framework 2019-2024^{xxxviii} state that they are keen to encourage landscape and nature projects that *“deliver more, better, bigger, better connected and more resilient habitats for nature”*.

The Nature Networks approach would provide a useful lens to help funding bodies such as NHLF to have a better overview of projects that achieve these aims.

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