



# Nature Recovery Networks for Northern Ireland

More, bigger, better, and more joined-up habitats for a resilient future

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*This paper has been produced by The Landscape Partnership<sup>i</sup>, which is working alongside key stakeholders to kick-start the journey of making Nature Recovery Networks (NRNs) a reality in Northern Ireland. This paper aims to provide a high-level introduction to the NRN-concept in the Northern Ireland context and will be supplemented with more in-depth and focused briefs going forward.*

## Summary

The nature and climate crises are detrimentally impacting nature and people across Northern Ireland. With 11% of species at risk from extinction<sup>ii</sup> and just one of 49 priority habitats in good condition<sup>iii</sup>, we need a step change in how we protect and manage the natural environment. One of the key actions needed, is the protection, restoration, enhancement, creation and connection of places for nature through Nature Recovery Networks (NRNs), as was recently recognised by the UK's five statutory nature conservation bodies' Nature-Positive 2030<sup>iv</sup> -report. To realise this ambition across Northern Ireland, we need collective and bold action; bringing together expertise, creating a statutory requirement for nature's recovery, and supporting this through long-term funding. By legislating for and adequately financing NRNs (eventually becoming established Nature Networks) in Northern Ireland, we could put nature onto the path of recovery, and deliver far-reaching benefits to society.

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## Introduction

The harsh reality is that people in Northern Ireland are living in one of the most nature depleted places in the world<sup>v</sup>. In fact, research by the Natural History Museum and the RSPB<sup>iii</sup> above revealed that Northern Ireland ranks 12<sup>th</sup> worst out of 240 countries when it comes to biodiversity loss, largely caused by natural habitats being broken up into small patches, or lost altogether<sup>vi</sup>. With 11% of species found in Northern Ireland threatened by extinction from the island of Ireland<sup>vii</sup>, 86% of our peatlands degraded<sup>viii</sup>, and just 1 of 21 lakes in good quality<sup>ix</sup>, nature is in crisis<sup>x</sup>. The impacts of climate change are also becoming more and more prominent, with Northern Ireland having broken its all-time temperature record three times this summer<sup>xi</sup>. Moreover, nature and public health – both mental and physical – are inherently linked, with access to nature one of the defining factors of our individual experiences of the Covid-19 pandemic<sup>xii</sup>. **We fundamentally need nature to survive, but we are failing to protect it.**

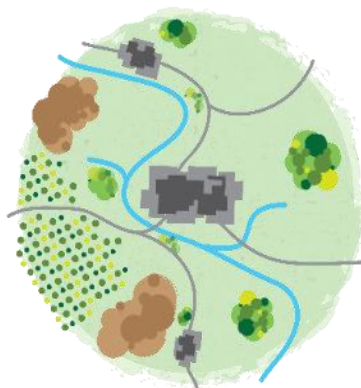
There is strong political and public support for nature's restoration. Members of the NI Assembly have declared a Climate Emergency<sup>xiii</sup> and pledged to halt and reverse the decline of nature<sup>xiv</sup>, and the Minister of Agriculture, Environment and Rural Affairs has endorsed the target of protecting 30 percent of Northern Ireland's land and seas by 2030<sup>xv</sup> (also known as the '30 by 30'). Yet **this ambition has not been translated into actions to benefit nature**, despite 70% of people in Northern Ireland supporting the introduction of new laws to better protect nature, and stronger oversight of environmental law<sup>xvi</sup>. Action to tackle the nature and climate crises are inextricably linked, with nature-based solutions (NBSs)<sup>xvii</sup>, such as peatland restoration, potentially delivering as much as 37% of the cost-effective climate mitigation to ensure that our global warming is kept below two percent, by 2030<sup>xviii</sup>, whilst simultaneously improving water quality<sup>xix</sup>, increasing biodiversity<sup>xx</sup> and creating jobs. It is vital that the political willingness is realised through transformative action.

## Think Big, and Connected

Current decision-making around biodiversity conservation and tackling climate change has largely been piecemeal, often opportunistic and focused on individual sites and initiatives. To effectively address the nature and climate crises in Northern Ireland, we need transformative solutions that go beyond simply conserving existing habitats and species to actively restoring nature at a landscape scale. This should include the introduction of Nature Recovery Networks (NRNs) as a key delivery tool. Nature has an incredible ability to recover, if we just give it a chance. With legally-binding targets, long-term funding, and the technical tools and expertise, we could create a nature positive future, in addition to carving a green path for recovery from the global pandemic.

*NRNs are a strategic, long-term approach to managing, creating, restoring, and enhancing habitats and landscapes - linking together ecological processes across protected areas and the wider landscape while highlighting the link between the status of our natural world and human well-being.*

Where we are now:  
A FRAGMENTED LANDSCAPE



Where we need to get to:  
A THRIVING, CONNECTED LANDSCAPE

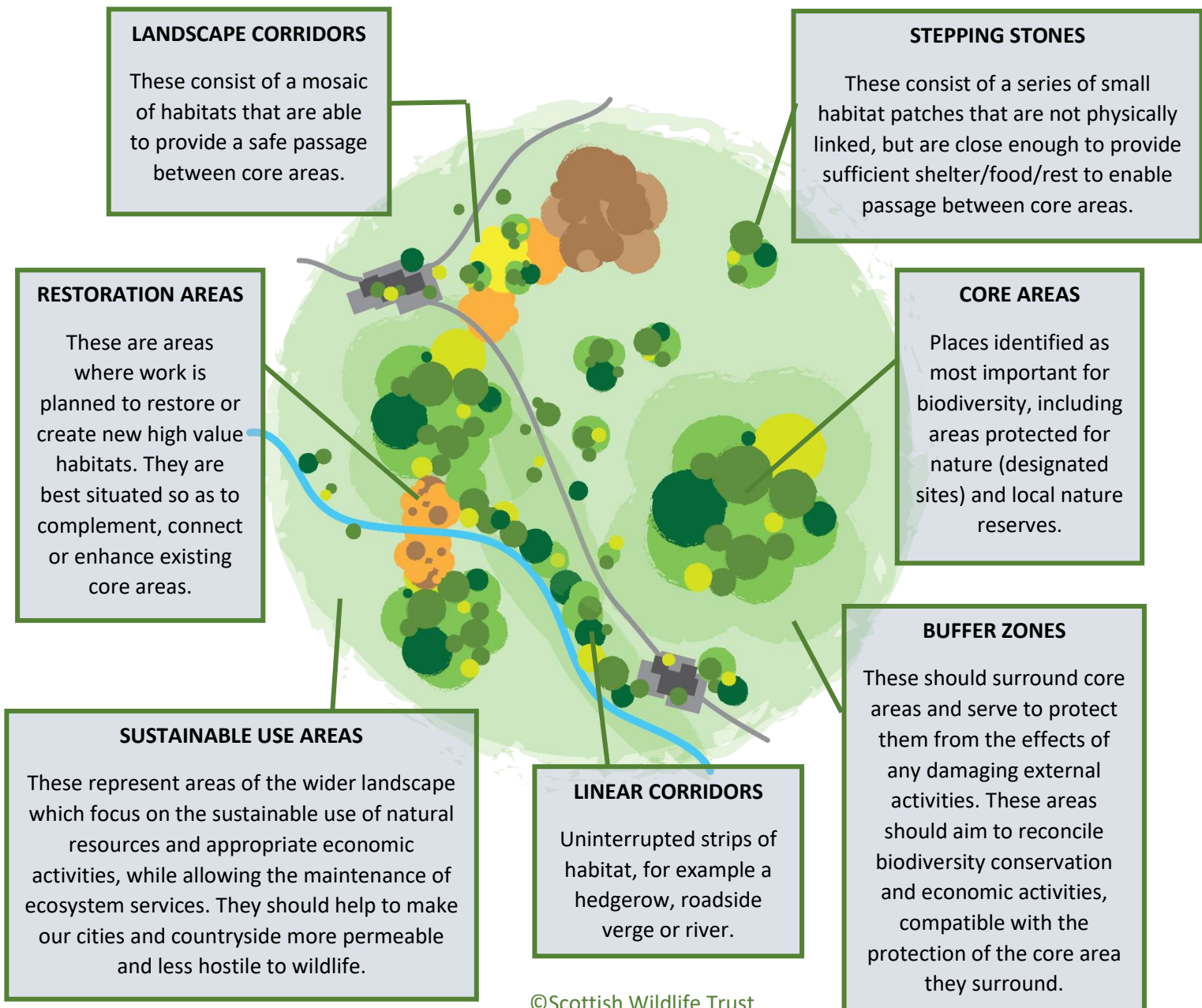


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## What are Nature Recovery Networks?

Working with the principles of **More, Bigger, Better and more Joined-up**<sup>xxi</sup> spaces for nature, NRNs bring together a wide range of insights and actions to recover nature, where habitat extent, quality, and connectivity are key ingredients. In essence, NRNs are characterised by i) the identification and protection of the most critical areas; ii) a focus on conserving biodiversity at a landscape scale; iii) an emphasis on creating a coherent<sup>xxii</sup> and well-connected network of designated sites and wider habitats, so that wildlife can move easily across the landscape, and adapt to change and, finally iv) the creation of 'buffer zones' to protect core areas from the effects of damaging activities in the surrounding area. The components of NRNs can be natural or man-made, and of any size ranging from green roofs to landscape-scale conservation projects. These physical features are summarised in the diagram below, where core areas and restoration areas are connected by corridors and stepping stones, surrounded by buffer zones and wider scale sustainable land use areas, together forming a resilient and nature rich landscape:



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## Benefits of Nature Recovery Networks

By creating, restoring, and, enhancing habitats, NRNs connect ecologically important areas that facilitate the movement of species and their genes. This **functional connectivity can counteract the negative impacts of human activities, reconnecting previously fragmented habitats and providing new space for wildlife across both urban and rural areas.**

But NRNs are also as much about people as they are about biodiversity. In addition to the primary role of supporting healthy biodiversity, **NRNs can also provide a vast range of benefits for people.** These ecosystem services, include, but are not limited to:

- Flood alleviation by allowing the landscape to naturally slow the flow such as by riparian (riverside) vegetation or healthy peatlands.
- Air quality improvements through e.g. increased tree cover in cities.
- Increased recreation activities e.g. through greenways or community woodland sites.
- Carbon capture and storage through peatland and wetland restoration or woodland generation.

Therefore, the design of NRNs should recognize the joint benefits that healthy ecosystems provide to nature and people across Northern Ireland:

Peatlands	Freshwater	Woodlands	Towns and cities
			
<p>Peatlands comprise 18% of Northern Ireland's land area, but 88% of these show signs of degradation, leading to the loss of biodiversity and the release of greenhouse gases to the atmosphere. Restoring peatlands across Northern Ireland would help to both mitigate and adapt to climate change, provide clean drinking water and reduce the risk and severity of flooding, while helping to support rare species such as snipe and red grouse.</p>	<p>Our rivers, canals and loughs can act as important connecting features between sites. In 2018, only 31.3% of NI river water bodies were classified to be in 'good' or better condition. Reducing the pollution levels in our freshwater bodies would help improve water quality, benefitting for example many freshwater fish species and our special population of white-clawed crayfish while also making them much more pleasant places to visit.</p>	<p>Today only around 3% of Northern Ireland's land is native woodland, and this exists often in small and fragmented patches, meaning that woodland species are often restricted to sites isolated from each other. Increasing native woodland cover and its connectivity would help increase habitat available for woodland specialists such as pine marten and allow them to move across the landscape, not to forget the carbon sequestration capabilities of trees in tackling climate change.</p>	<p>Around 60% of Northern Ireland's population now lives in urban areas, often dominated by man-made surfaces such as concrete, making them a particularly challenging environment for wildlife. Street trees, wildflower verges, green roofs and wildlife friendly gardens are only a few ways that we could make our towns and cities better places for wildlife, as well as better and more attractive places for people to spend time and live in.</p>

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Well-resourced and effectively managed NRNs could lead to wide-scale recovery of our most iconic and vulnerable species and habitats, both within and outside of our protected sites network and deliver wide-ranging social and economic benefits, eventually becoming a self-sufficient Nature Network. To achieve this we need to understand and map out the current distribution and condition of our habitats and identify where there is potential to create more, bigger, better and more joined-up habitats. The Landscape Partnership is currently exploring what NRNs might look like in Northern Ireland, including the development of a mapping tool to produce Northern Ireland's first ever set of habitat network maps.

## The opportunity at hand

Globally and locally governments are currently designing new plans that will impact the health of our environment for many years to come<sup>xxiii</sup>. **2021 marks the start of the UN Decade on Ecosystem Restoration<sup>xxiv</sup> with key global conferences for climate change (COP26<sup>xxv</sup>) and Biological Diversity (CBD)<sup>xxvi</sup> (COP15<sup>xxvii</sup>) taking place.** Out of these COPs (conference of parties) will come the global commitments and targets<sup>xxviii</sup> which must be realised at national level, by integrating them into local policies and actions such as National Biodiversity Strategies and Action Plans<sup>xxix</sup>. **For Northern Ireland to play its role in the global effort to tackle the nature and climate crises, the NI Executive and Assembly must commit to the delivery, coordination, and assessment of progress across local, subnational, and national levels to achieve these goals.**

There has never been a more urgent and appropriate time to act across Northern Ireland, and to make sure we're put the long-term wellbeing of both our environment and people at the forefront of our future by tackling both the nature and climate crises head on<sup>xxx</sup>. In this context, **locally designed but nationally coherent NRNs represent an important tool, equipping nature itself as our ally, while simultaneously bringing wildlife and the benefits of a healthy natural world into every part of our lives.** The realisation of NRNs should, therefore, play an integral part in future environmental policy and decision-making, identifying areas that are important for biodiversity, and where potential exists to either restore or create habitats, and intentionally linking them up.

## What do we need to turn NRNs into a reality in Northern Ireland?

For NRNs to be successful in helping restore nature and provide for people, they must be

- 1) underpinned by a legally binding commitment;
- 2) adopted by the NI Executive and implemented across all policy and decision-making;
- 3) developed in collaboration with stakeholders and experts;
- 4) well-resourced and regularly monitored, with data made publicly available, and
- 5) subject to review.

**It is crucial for the nature recovery agenda to be intrinsically integrated with the climate change agenda and vice versa, taking full use of the opportunities Nature-based Solutions provide, while fostering existing regional and local efforts to drive positive change across landscapes and the countryside.** Efforts to restore nature must focus on both quality and quantity of habitats, with our core designated sites - including Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Areas of Special Scientific Interest (ASSIs) - forming a crucial part of the wider landscape management. Therefore, the NI Executive must commit to having at least 30% of Northern Ireland effectively managed for nature by 2030<sup>xxxi</sup>, to act as a core backbone for NRNs, as well as making the wider landscape more permeable for wildlife<sup>xxxii</sup>, recognising that protected areas are only one, while crucial, part of a complex picture and will not alone halt biodiversity loss. This ambition must be delivered by embedding nature recovery into future Agri-Environment Schemes<sup>xxxiii</sup>, the planning system, and more broadly across the Executive, supported by adequate financing and robust



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monitoring and oversight. Consideration must be given to the role of land-managers and other stakeholders, as well as the impacts of the introduction of NRNs on them. Those involved in the delivery of NRNs need to be rewarded appropriately and the transition towards the new way of doing things to be just and fair.

While everyone has a role to play, in order to turn NRNs from a vision to reality at scale, they need to be supported by a strong legal framework, including a set of principles, time-bound targets, and crucially, a duty to act. This requires commitments to:

- **The development of a National Nature Recovery Network, with associated framework of guidance, principles, monitoring and accountability**, designed in collaboration with key stakeholders and local communities
- **Implementation across the NI Executive and all public authorities**, by ensuring that
  - Future policy and strategies facilitate both nature's recovery and adaptation and mitigation to climate change simultaneously by prioritising opportunities to create, restore, and enhance habitats through decision-making.
  - Action is taken at all levels of government to contribute towards the creation and implementation of a National NRN (NNRN), supported by local strategies and networks to integrate and specify decision-making at a local scale (e.g. through **Local Biodiversity Action Plans** and ensuring local planning processes<sup>xxxiv</sup> and development creates net gain for biodiversity).
- **Introduction of, and duty for public authorities to meet statutory nature recovery targets<sup>xxxv</sup>** that are SMART (Specific, Measurable, Achievable, Relevant, Time-bound), covering priority areas of water (freshwater and marine), air quality, biodiversity, resource use and waste, soil health and quality, aiming to achieve healthy and natural terrestrial, freshwater, and marine environments.
- **Achieving 30% of land effectively managed for nature by 2030<sup>1</sup>** (30 by 30) as an essential backbone of NRNs.
- **Cross border cooperation<sup>xxxvi</sup>**: as part of the single biogeographic unit on the island of Ireland, cooperation across local authority and national borders will be key.
- **Investment in Blue and Green infrastructure** is prioritised in the emerging **Green Growth Framework<sup>xxxvii</sup>** as a delivery mechanism for NRNs<sup>xxxviii</sup>.
- **Ensuring the Post-CAP Future Farm Payments Framework** uses NRNs to prioritise where and how land should be managed for nature and climate by providing for land managers the tool to make habitats bigger, better and more connected through managing, restoring and recreating habitats at local, regional, and national scales.
- **Adequate long-term funding** for evidence gathering, development of NRNs (national and local scale), stakeholder engagement, management, monitoring, and oversight of NRNs must be sufficiently resourced. This will include reviewing existing funding sources, and exploring new opportunities and partnerships that will best prioritise nature's recovery. For example we must:
  - Enable robust oversight and enforcement of environmental legislation and policy by sufficiently resourcing key bodies involved in delivering NRNs, such as DAERA/NIEA, Local Authorities and any future independent Environmental Protection Agency.
  - Equip public authorities to carry out development and implementation of NRNs, facilitating collaboration across departments, council areas and with other stakeholders.
  - Ensure existing and future public expenditure and procurement do not incentivise action that is in conflict with nature's recovery
  - Using the NRN framework to inform DAERA's Environment Fund to explicitly tackle the main drivers of biodiversity loss.

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- Ensuring any UK funding initiatives direct funds towards nature's recovery in Northern Ireland

## Conclusions

We are in dual nature and climate crises, and we must act in a holistic and ambitious way. Well-designed Nature Recovery Networks (NRNs) could enable species and habitats to thrive and fulfil their role in tackling both the climate and nature crises, whilst proving significant benefits to people and society. We must repair, create, and connect the best places for nature across Northern Ireland. As part of this ambition, NRNs represent a strategic and wide-reaching investment, bringing wildlife and the benefits of a healthy natural world into every part of our lives, with associated wide-ranging positive impacts on society and the economy. NRNs provide a way to address multiple environmental and societal challenges at once, so it is vital that we take urgent and ambitious action, to recovery nature.

With ambitious action across the NI Executive, Assembly, and Local Authorities, as well as from land-managers, industry, non-governmental organisations and communities, NRNs could help to renew our countryside, towns and cities; benefitting nature's recovery, while reconnecting places and people. We all have a role to play, with collaboration, management, and monitoring essential for nature's recovery. Therefore, we call on everyone, across political and public spheres, to champion nature's recovery and NRNs, to achieve a nature positive future for Northern Ireland.

## Building Capacity to Deliver Nature Recovery Networks in Northern Ireland

Since September 2020, in the spirit of the Landscape Partnership agreement, **Ulster Wildlife**, **RSPB NI**, **National Trust** and **Woodland Trust** have been working together on a capacity-building project around Nature Recovery Networks. With generous funding from the National Lottery Heritage Lottery Fund and working closely with stakeholders such as the Northern Ireland Environment Agency (NIEA), the aim of the project is to conduct a nation-wide mapping exercise, in order to produce Northern Ireland's first ever terrestrial habitat network maps, to better understand to the current terrestrial habitat cover, its level of connectivity and to identify opportunities to create more, bigger, better and more joined-up habitats for wildlife.

With assistance from these maps the project will also develop a set case studies in order to portray how the NRN approach, and associated maps can inform future policy and practice, and facilitate knowledge sharing among the partners and other stakeholders, in order to upskill the sector and to advocate for the adoption of the NRN-approach into policy and practice in Northern Ireland, where these maps can strategically direct action where it will make the biggest impact for wildlife and humans alike. The focus of this current project is on terrestrial habitats, but in the future we hope to explore how the concept could also be expanded into the marine environment.

There is already wonderful work underway to help nature recover across Northern Ireland. We believe that by working together, the outputs of this project will help to scale up and streamline these efforts, lead to a future where we all have a role to play and are working towards a shared vision to make more space for nature.



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## References

- <sup>i</sup> See more at <https://www.ulsterwildlife.org/nature-recovery-networks>
- <sup>ii</sup> <https://nbn.org.uk/wp-content/uploads/2019/09/State-of-Nature-2019-Northern-Ireland-summary.pdf>
- <sup>iii</sup> <https://www.rspb.org.uk/globalassets/downloads/about-us/48398rspb-biodiversity-intactness-index-summary-report-v4.pdf>
- <sup>iv</sup> <https://jncc.gov.uk/our-role/the-uk/nature-positive-2030/>
- <sup>v</sup> <https://www.zsl.org/sites/default/files/LPR%202020%20Full%20report.pdf>
- <sup>vi</sup> There are five key drivers of Biodiversity-loss globally: changes in land use, resource extraction, pollution, invasive non-native species and climate change (IPBES, 2019) <https://ipbes.net/global-assessment>
- <sup>vii</sup> <https://nbn.org.uk/wp-content/uploads/2019/09/State-of-Nature-2019-UK-full-report.pdf>
- <sup>viii</sup> <https://www.rspb.org.uk/about-the-rspb/about-us/media-centre/press-releases/peatland-restoration-is-vital-if-northern-ireland-is-serious-about-a-green-recovery/>
- <sup>ix</sup> <https://www.daera-ni.gov.uk/publications/northern-ireland-water-framework-directive-statistics-lake-quality-update-2020>
- <sup>x</sup> Currently, only 9.8% of Northern Ireland’s land area is legally protected for nature (see <https://jncc.gov.uk/our-work/ukbi-c1-protected-areas/#indicator-description-table-c1ii-extent-and-percentage-cover-of-terrestrial-protected-areas-by-country-as-at-24-july-2020-n1-for-assi-mcz-ncmpa-nnr-ramsar-sac-and-spa-site-designations> ) and many of these sites are not in good condition. In fact, it has been estimated, that only 20% of these protected areas are under favourable management, with as little as 54% of ASSI biological features, for example, in favourable condition. The issue is exacerbated by the lack of monitoring data, with 74% of ASSI’s in Northern Ireland, for example, having not been surveyed for at least six years (see [https://ww2.rspb.org.uk/Images/A%20LOST%20DECADE%20FOR%20NATURE\\_tcm9-481563.pdf](https://ww2.rspb.org.uk/Images/A%20LOST%20DECADE%20FOR%20NATURE_tcm9-481563.pdf) )
- <sup>xi</sup> Climate Northern Ireland eBulletin, Issue 102 <https://www.mailings.tc/t/r-E23DC820497F1B312540EF23F30FEDED>
- <sup>xii</sup> <http://www.outdoorrecreationni.com/news/revealed-outdoor-recreation-people-nature-and-health-survey-results/>
- <sup>xiii</sup> Motion to Declare Climate Emergency, Northern Ireland Assembly February, 3<sup>rd</sup>, 2020 <http://aims.niassembly.gov.uk/plenary/details.aspx?tbv=0&ptv=0&mcv=0&mtv=0&spv=-1&per=1&it=0&pid=2&sid=p&pn=0&ba=1&doc=290756%20&fd=03/02/2020&td=03/02/2020>
- <sup>xiv</sup> RSPB NI and Asthma UK & British Lung Foundation NI’s pledge to protect nature and improve public health. <https://twitter.com/RSPBNI/status/1450464026207604738>
- <sup>xv</sup> <https://niassembly.tv/question-time-agriculture-environment-and-rural-affairs-tuesday-25-may-2021/> (circa 26 minutes in)
- <sup>xvi</sup> <https://community.rspb.org.uk/getinvolved/b/steppingupnorthernireland/posts/new-poll-shows-strong-public-support-for-a-green-recovery>
- <sup>xvii</sup> The IUCN definition of NbSs are “actions to protect, sustainably manage, and restore natural or modified ecosystems, that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits”. For more information, visit <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>
- <sup>xviii</sup> <https://www.pnas.org/content/114/44/11645>
- <sup>xix</sup> <https://www.niwater.com/garron-plateau-bog-restoration-project/>
- <sup>xx</sup> <https://www.rspb.org.uk/about-the-rspb/at-home-and-abroad/northern-ireland/policyinnorthernireland/valuing-our-peatlands/>





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- xxi [Lawton, J. H., P. N. M. Brotherton, V. K. Brown, C. Elphick, A. H. Fitter, J. Forshaw, R. W. Haddow, et al. 2010. "Making Space for Nature: a review of England's wildlife sites and ecological network. Report to Defra."](#)
- xxii For more detail, see [Ecological Coherence Definitions in Policy and Practice](#)
- xxiii In England, for example, the government has committed to the development of a Nature Recovery Network in the [25 Year Environment Plan](#), which promises among other things, of the delivery of 25 new landscape or catchment-scale projects and 500,000 hectares of new habitat.
- xxiv <https://www.decadeonrestoration.org/>
- xxv <https://ukcop26.org/>
- xxvi <https://www.cbd.int/>
- xxvii <https://www.cbd.int/doc/press/2021/pr-2021-08-18-cop15-en.pdf>
- xxviii The first draft of the Global Biodiversity Framework can be found at <https://www.cbd.int/conferences/post2020>
- xxix More on NBSAPs at <https://www.cbd.int/nbsap/>
- xxx See for example RSPB's [Five-point Plan to Deliver Green Recovery in Northern Ireland](#)
- xxxi The Northern Ireland Environment Link briefing on 30 by 30 can be accessed [here](#)
- xxxii See for example information on 'Other Effective Area-based Conservation Measures' (OECMs). The CBD definition of OECMs is "a geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term outcomes for the in situ conservation of biodiversity, with associated ecosystem functions and services and where applicable, cultural, spiritual, socio-economic, and other locally relevant values." See more at <https://www.iucn.org/commissions/world-commission-protected-areas/our-work/oecms>
- xxxiii See for <https://www.nienvironmentlink.org/cmsfiles/farming-for-the-future.pdf>
- xxxiv See for example e.g. the [Scottish the Planning Blueprint for Green Infrastructure](#).
- xxxv 80% of the respondents at our [April webinar-series](#) agreed that legally binding targets are needed in Northern Ireland
- xxxvi The [All Island Pollinator Plan](#) is a great example of successful cross-border cooperation.
- xxxvii See <http://www.daera-ni.gov.uk/consultations/consultation-draft-green-growth-strategy-northern-ireland>
- xxxviii See for example [DAERA Innovation Strategy](#), making reference to the Green Growth Agenda