

Institute for Public Policy Research



A PLAN FOR NATURE IN THE NORTH OF ENGLAND



Jack Hunter

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SUMMARY

The north of England has some of the most beautiful natural landscapes in the world. From the soaring heights and serene waters of the Lake District, to the rugged, majestic splendour of the Yorkshire Dales, to the spectacular beauty of the Northumbrian coast, and everything in between, the North is rich in a diverse range of natural assets.

Not only that, but the North is also home to a rich ecosystem of nature and biodiversity that extends across not only our national parks and Areas of Outstanding Natural Beauty, but across our towns and cities, and into people's gardens.

We have a collective responsibility to preserve and enhance nature for future generations to enjoy. And it's in our best interests to do so: our natural environment supports and sustains the North's economy, and the health and wellbeing of its people, in myriad ways. From the water we drink to the air we breathe, the places where we live and work to where we relax and exercise, the prosperity of the North is deeply entwined with the state of its natural environment.

Despite this, the state of nature in many parts of the UK is poor. In many cases, conditions are particularly bad in the North. Important aspects of our natural environment are losing their own innate ability to restore and replenish themselves, a state of affairs that is being made worse by climate change. This degradation of the environmental resilience of nature in the North undermines the resilience of the Northern economy, as well as public health.

The failure to properly look after, and invest in, our natural environment is a political failure. It is hard to see and quantify the benefits of investment in nature. As such, there is little or no consideration of the natural environment and its foundational role in the economy within strategic debates at a pan-Northern level, including the government's Northern Powerhouse initiative.

This must change. Reversing the underinvestment and under-valuation of nature will increase the resilience of the Northern economy. Not only that, but strategic investment in nature represents a substantial opportunity to develop a fair, green, zero-carbon Northern economy. This is made more urgent by the likely impacts of the Covid-19 pandemic – efforts to repair and rebuild the North's economy during and after coronavirus should make the most of the opportunities that investment in nature can bring.

We need a pan-regional effort, led by the North's leaders, to join up and coordinate local efforts to build environmental resilience, and to set out a strategic Plan for Nature, that will make an unanswerable case for new powers and funds from Westminster. Leading by the North, for the North can allow for leaders to embed social and environmental justice into the wider agenda to 'level up' the country.

RECOMMENDATIONS: BUILDING THE FOUNDATIONS FOR A PLAN FOR NATURE IN THE NORTH

Recommendation 1:

Northern leaders should work with organisations with statutory responsibility for nature, and other organisations with a strategic interest in the health of the natural environment, to create a joint forum for discussion and, where appropriate, aligned decision-making across the North

Recommendation 2:

Northern leaders, including the metro mayors, the N11 group of LEPs, Transport for the North and NHS Regional directors should work with statutory bodies for nature such as the Environment Agency and Natural England, Protected Landscape authorities, and water companies, as well as Environmental NGOs including the Wildlife Trust, RSPB, and National Trust, to agree a strategic vision for nature in the North, incorporating a regional Nature Recovery Strategy

Recommendation 3:

The government should provide funding for the development of a **spatial strategy for investment in nature in the North**, including a mapping of the North's natural capital. The plan should be owned and developed by Northern leaders, including the NP11, the metro mayors and local authority leaders

Recommendation 4:

The government should commit to providing **substantial, long-term and devolved funding** to put the Plan for Nature in the North into practice. We envisage that the size of investment would be roughly £50-100 billion over the next 25 years

ABOUT THE NATURAL ASSETS PROGRAMME

Natural Assets North is an IPPR North project which explores the value of the North's natural environment to the people and economy of the region, and to the whole of the UK. It originated from IPPR North's work on a blueprint for a Great North Plan which was published in 2016 in partnership with the RTPI.

As part of this programme of work, we have published three briefing papers, informed by a series of 'walk-and-talk' roundtables and focusing on different aspects of the North's natural environment. These papers are available online.

- **Valuing our northern uplands**
<https://www.ippr.org/research/publications/natural-assets-north-valuing-our-northern-uplands>
- **Water in the Northern Powerhouse**
<https://www.ippr.org/research/publications/natural-assets-north-water-in-the-northern-powerhouse>
- **Flooding in the North**
<https://www.ippr.org/research/publications/natural-assets-north-flooding-in-the-north>

This is the final report of this programme of work. It draws upon themes explored in each of the briefing papers and sets out recommendations for policymakers at the local, northern and national level.

This report is structured as follows.

- **Section 1** provides background to the North's natural environment, its diversity and its uniqueness. It briefly describes the relationship between nature and the health and prosperity of the region's people and its economy.
- **Section 2** describes the challenges faced by a degrading natural environment, the risks that this poses to the resilience of the Northern economy and to the health of its population, and the likely impacts of climate change upon this.
- **Section 3** explores what change looks like. It sets out what we should aim to achieve through investment in the North's natural assets. It sets out some of the major obstacles and policy opportunities that can be used, and makes the case for a pan-regional spatial plan to direct strategic investment in the North's natural assets, to sit alongside and compliment a national policy framework and efforts at the local level.
- **Section 4** provides conclusions and recommendations for policymakers.

1. THE NORTH'S NATURAL ASSETS

The north of England has some of the most beautiful nature landscapes in the world. From the soaring heights and serene waters of the Lake District, to the rugged, majestic splendour of the Yorkshire Dales, to the spectacular beauty of the Northumbrian coast, and everything in between, the North is rich in natural assets.

The North's natural environment is hugely diverse, including large swathes of upland areas across much of the North West, West, South and North Yorkshire and Northumbria, as well as large areas of fertile, low-lying flat land across the Humber, Teesside, Merseyside, parts of Lancashire and Cheshire. The region is home to internationally renowned coastlines, rivers and lakes, as well as forests and wetlands. Many of the North's natural landscapes, including the limestone pavements of Cumbria and North Yorkshire, and the blanket bogs of the Pennines, are highly valuable habitats for species of plant and animal life that are rare to other parts of the country.

Compared to the rest of England, the natural environment of the North has some highly distinctive features. The North, which covers a quarter of the total land area of England, accounts for a disproportionately large percentage of many important natural features. Specifically, the North is home to:

- **70 per cent of all wetland areas in England, including 88 per cent of all peatland**
- **71 per cent of all moor and heathland in England, 70 per cent of all natural grasslands and 28 per cent of all forest (including 51 per cent of all coniferous forest)**
- **31 per cent of all water bodies (lakes, reservoirs etc) in England, and 49 per cent of all water courses (rivers, streams etc).**

Cole et al (2015)

Reflecting the value and beauty of its natural landscapes and its wildlife, a large proportion of the North falls within a protected area. Of the 10 national parks in England, five are located in the North, including parts of the Peak District National Park. This means that roughly 20 per cent of all land in the North is covered by a national park – double the figure for England as a whole. The North is also home to six Areas of Outstanding Natural Beauty (AONB) and more than 60 national nature reserves. These include areas of coastland, upland, moors and grassland that are home to a wide range of biodiversity, which extend beyond the boundaries of any protected area and into the surrounding countryside, as well as our towns and cities.

The North also benefits from the proximity of nature to its people. Nowhere else in the UK are so many protected areas of natural beauty located near to so many large urban centres. The major city regions of Sheffield, Leeds, Greater Manchester and Newcastle, for example, are all situated close to land covered by a national park, or an AONB. Not only that, but the North is home to a huge proportion of all open access land: of the 855,000 hectares of mountains, moors, heaths, downs

and registered common land that are subject to a ‘right to roam’ in England, over three-quarters (77 per cent) is in the North (Public Accounts Committee 2007).

Taken together, the scale and diversity of the North’s natural assets make them highly unique. These natural landscapes are an invaluable resource, that we have a collective responsibility to preserve and enhance for future generations to enjoy. Not only that, but they also support and sustain the North’s economy, and its people, in myriad ways.

This complex and enduring relationship is explored below.

THE RELATIONSHIP BETWEEN THE NORTH’S NATURAL LANDSCAPES, ITS PEOPLE AND ITS ECONOMY

Nature provides the foundations for the health and wellbeing of us all. It provides us with the basic essentials of life – air, food and water – as well as providing spaces for exercise, relaxation and sport. It protects us from flooding and plays a vital role in tackling climate change by drawing down carbon from the air. It also reduces urban heating, improves air quality, and underpins the visitor economy in both rural and urban areas.

As is being belatedly acknowledged by mainstream policymakers¹, the foundational role of nature to human activity also extends to the economy. The economy of the North, for example, has always been deeply connected to its natural environment. In previous centuries, for example, the fast-flowing waters that ran off the hillsides were harnessed by Northern industry and powered the industrial revolution. Mills directed the energy of the water towards productive ends and settlements emerged around them which grew into the towns and cities of the modern North.

Likewise, coal from the hills of Lancashire, South Yorkshire and Durham and Northumberland helped to drive the industrial revolution, with infrastructure and settlements growing around them as the North’s economy expanded. Elsewhere, maritime activities on the Mersey Estuary, the River Tyne, the River Tees, and the Humber Estuary that date back to medieval times continue to dictate the location of major settlements on both sides of the Pennines, and the location of many of the North’s major modern industries.

IPPR North’s Natural Assets North programme has explored the ways that the state of the region’s natural environment underpins the health of its population of 15 million people, and the resilience of its £300 billion economy. Some of the key features of this relationship are explored below.

1. Water

Water sustains and nourishes the North’s natural environment, from its upland landscapes to its wetlands and estuaries. It is essential in supporting the North’s wide diversity of plant and animal life, as well as the health of its soil, including its peatlands, and valuable habitats such as grass- and wetlands (Hunter 2019b).

Water also sustains and supports the health of Northern people, and the region’s economy. Water abstracted from reservoirs, rivers and lakes, as well as groundwaters, not only provides the public water supply, but it also underpins electricity generation, agriculture and other industries as well as for transporting household and commercial waste through wastewater systems, and for recreational activities such as swimming, fishing and sailing.

1 See, for example, Carrington (2019)

The quality of the water is linked to the state of the wider natural environment – water from good quality peatlands, for example, is naturally of high quality, with few pollutants, requiring straightforward treatment before consumption. On the other hand, loss of woodland or other vegetation cover can increase soil erosion and runoff, decreasing water quality – which in turn incurs a more intensive, and therefore more expensive, treatment process when it is used for drinking water supply. Throughout, the effects of climate change, alongside increasing demand for water, means that pressure on the supply of water in the region is increasing (Hunter 2019b).

The resilience of the North's water resources is of national concern. Despite the increasing pressures on the supply of water, the North has significantly lower risk of water stress in comparison to much of England, in particular the South East. As such, parts of the North can potentially, and with the right investment, play a role in building national water resilience through water transfers.

2. Carbon capture

The North's natural environment is an important carbon sink that could make a significant contribution to the UK government's net carbon target for 2050.

Peatland across the whole of the UK is estimated to hold 3.2 billion tonnes of carbon (Northern Upland Chain LNP 2015), which accounts for almost a third of all carbon held in UK soil (Environment Agency 2019). More generally, our soil, trees and grasslands also play a major role in drawing carbon out of the atmosphere – annual carbon sequestration by forests in the UK is estimated at 18.2 million tonnes (Forest Research 2020).

Peatlands in the UK are in a very poor condition, with the result that they currently a major national source of carbon dioxide to the atmosphere (Natural England 2010). In general, UK carbon emissions from land use, including agriculture, have not fallen significantly over recent years, and in fact increased in 2017 – the latest year for which data was available.

Similarly, while tree-planting schemes have been identified as an important vehicle for the UK to reduce its net carbon emissions, rates of afforestation in England continue to fall short of the government's stated ambition. The UK currently plants 13,400 hectares/year, way below the target of 20,000 hectares/year).

3. Flood resilience

The North's natural assets also play a key role in mitigating flood risk across the region. The state of the natural environment determines the ability of the land to retain water at times of high rainfall. Where peatland has been degraded, trees and vegetation cut back, streams and rivers dredged, or soil compacted and exposed by agriculture, there is increased risk of high levels of runoff, leading to significant raised flood risk further downstream.

Higher flood risk means more frequent and more severe flooding events, such as those seen in Cumbria and other parts of the North West in 2015/16, which did an estimated £1.9 billion worth of damage. Flooding can cause significant emotional and financial hardship for the communities and households affected, along with disruption to local economies through damage to infrastructure and lost productivity, and substantial costs to the taxpayer (Hunter 2019a).

On the other hand, natural flood management techniques, including strategic choices with regard to land use further upstream, as well as 'green' flood infrastructure such as flood plains and water storage lagoons can make a significant impact on the overall flood resilience of a catchment area (Hunter 2019a).

4. Public health

For centuries, the North's natural landscapes have provided opportunities for leisure, exercise and tourism to those who can reach them. In this way, the North's natural environment – including green spaces, waterways and footpaths in and around urban areas as well as the wide open spaces beyond – helps to support people's mental and physical health (Natural England 2016a, 2016b), reducing the costs of healthcare and sustaining economic productivity. This is particularly of relevance to current discussions around non-medical interventions to support people's health, including through 'social prescribing'.

The right to access to the countryside has a long and contested history, with the right to visit some of the North's most beautiful landscapes won over the course of decades. The campaign that led to the creation of the national parks was led by Northern groups, including the mass trespass on Kinder Scout and on Winter Hill in Bolton. Even today, access to nature remains a social justice issue: the proportion of people who regularly access the outdoors varies considerably between different groups of people – those in deprived areas (Natural England 2019), and from BAME groups, are significantly less likely to regularly access nature.

There are other significant public health benefits associated with green spaces in urban areas, including the role of trees in improving air quality, primarily through the removal of air pollution, including nitrogen dioxide (NO₂) and particulate matter. Trees also bring additional benefits in urban areas through **noise mitigation and cooling** (EPA no date) – with knock-on benefits for people's mental and physical health.

Healthy peatlands are less vulnerable to damaging wildfires, such as those in Saddleworth Moor in 2018, which led to significant carbon emissions, damage to nature and had a significant impact on air quality across Greater Manchester for a three week period (Hunter and Longlands 2018).

5. Sense of place

The distinctive and evocative natural landscapes of the North of England underpin how the region has featured in literature and culture for centuries (Morley 2013) – for many people the North is synonymous with its majestic natural vistas and rough, rugged landscapes. The North's natural landscapes, alongside its industrial heritage and diverse cultural offer, contribute heavily to its shared 'sense of place': what 'the North' means in the collective imagination of its people and those further afield.

Attachment to nature is strong in the North. In a 2018 survey run by YouGov for the BBC, respondents from the North of England were most likely to identify 'the landscape' a factor in their sense of belonging to where they live (other factors included history, accent and cultural traditions). The proportion of people who positively identified with the landscape was significantly higher for those living in the North than in most other English regions (see table 1.1).

TABLE 1.1**How strongly, if at all, does the landscape add to your sense of belonging to where you live now?**

	North East	North West	Yorkshire and Humber	East Midlands	West Midlands	East of England	London	South East	South West
Total 'very' or 'fairly' strongly	72	63	71	62	56	62	45	67	76

Source: YouGov survey of 20,000 adults March 2018²

Proximity to such natural beauty and accessible countryside makes the North a more desirable place to live and work, which helps the region attract and retain talent. Not only that, but the North's world-famous natural landscapes generate significant tourism revenues. Nationally, there are 94 million visitors to national parks and surrounding areas each year, spending more than £5 billion and supporting 75,000 FTE jobs (Defra 2018). Tourism is of particular importance to certain rural areas: in Cumbria and North Yorkshire, for example, revenue from tourism accounts for a much larger proportion of the local economy than anywhere else in England outside of Cornwall (ONS 2016).

6. Energy

The natural environment also plays a foundational role in the low-carbon energy sector in the North, which already accounts for around a third of all jobs in the sector in England and which, with the right investment, could potentially deliver a just transition from a carbon-intensive economy (Emden and Murphy 2019).

The North has considerable potential for offshore and onshore wind generation, for example (Baxter and Cox 2017), and nuclear energy generation, and industrial carbon capture and storage techniques, relies upon plentiful water supplies.

An ambitious vision for the North's energy sector could help to catalyse and coordinate investment in skills infrastructure, and create sustainable and high wage jobs in areas that have been overlooked by national policymakers for decades.

The value provided by the natural assets of the north of England is immense. Not only do they support and sustain a rich tapestry of plant and animal life but they also provide a foundation for the future wellbeing of the North's people, and its economy. Our health and our prosperity are deeply intertwined with the natural systems around us.

This relationship extends across wide catchment areas. Many of the large conurbations of the North, for example, depend upon the water that comes from off the upland hills and through water courses across the region. And the flood resilience of communities is linked to the state of the natural environment across entire river catchments.³ Likewise, many people living in cities and towns travel to make use of the natural environment, including that near to urban areas as well as that further afield, for leisure and exercise.

This deep and wide-ranging relationship implies that we need to take a strategic, pan-northern approach to the stewardship of the North's natural assets. A healthy and prosperous Northern economy depends upon a thriving natural environment – and we need to act together to ensure its ongoing resilience.

2 For full survey results, see: https://d25d2506sfb94s.cloudfront.net/cumulus_uploads/document/7lnxjw12j/BBC_EnglishIdentity_March18_Results_for_website.pdf

3 See, for example, <https://icasp.org.uk/>

2.

THE STATE OF NATURE IN THE NORTH

Despite the foundational role of the environment to the health and prosperity of us all, we have collectively neglected to look after it properly. For decades, if not centuries, we have treated our natural environment as resources to be exploited and have failed to invest properly in its resilience.

The result has been a vicious circle of degradation to our natural systems (Laybourn-Langton L, Rankin L and Baxter D 2019), despite the efforts of those working to support and sustain the natural environment, including government agencies and conservation groups, the state of many of the UK's natural assets is poor. In many cases, conditions are particularly bad in the North.

In many cases, important aspects of our natural environment are losing their own innate ability to restore and replenish themselves (Lawton Report 2010). Our natural world is increasingly unable to respond effectively to new pressures such as climate and demographic change. This risks a vicious circle of damage to nature, undermining its ability to provide the public goods on which we all depend.

Examples of this degradation are plentiful.

- UK soils are in a state of steady degradation (Laybourn-Langton, Rankin and Baxter 2019). The Environment Agency estimates that 4 million tonnes of soil is compacted, and a further 2 million tonnes are at risk of erosion (Environment Agency 2019). Soil degradation has potentially profound impacts on the natural environment, and upon the health of rivers and streams, as well as upon the future sustainability of UK agriculture and national food security (WWF 2018).
- In the North, there are also significant issues related to the erosion and degradation of peatland. For example, one estimate suggested that as much as 50 per cent of the North's peatlands are in a degraded state (NUC LNP 2016).
- Levels of pollution of waterways such as rivers and streams remains widespread across England. Although there has been significant progress in reducing levels of phosphorous, just 14 per cent of rivers are at 'good ecological status' – primarily because of agriculture and rural land management practices, in addition to pollution from sewage (Environment Agency 2018).
- Parts of the North are some of the worst affected by poor river quality. Although the region also has some of the best quality rivers in England, the North West is home to a third of all rivers in the poorest condition across England and Wales (Environment Agency 2018).
- Woodland cover across the North is the lowest in the UK, just 7.6 per cent of land is covered with woodland (Forestry Commission 2017). This compares unfavourably with the rest of the UK (13 per cent) and highly unfavourably compared to the EU average of 44 per cent.
- Reflecting global trends, there has also been a significant reduction in UK biodiversity in recent years. The loss of plant and animal species, driven by habitat destruction and pesticide use, is itself a tragedy, however it also has potentially serious consequences for the resilience of ecosystem functions on which society depends. In particular, there is evidence to suggest that the UK

is experiencing a decline among species that act as pollinators and natural pest controls (Oliver et al 2015) – which would likely have significant impact for food production and, as a consequence, the cost of living.

The need for action is clear. Tackling climate change, biodiversity loss and the ongoing degradation of the North's natural environments will help rebuild the resilience of nature, and in turn this would build resilience in the Northern economy, not least by:

- reducing the likelihood and damage of serious events such as flooding, water shortages and loss of biodiversity, that, without action, are forecast to increase in regularity and severity as a result of climate change. In turn, this reduces costs to the taxpayer and provides certainty and security for policymakers and investors in the North
- providing opportunities for sustainable, skilled jobs, as part of a just transition to a low-carbon economy
- supporting the health and wellbeing of the North's population, and ensuring that the region remains a desirable place to live and work
- increasing carbon sequestration through natural means, and increasing national water and energy security.

As such, investment in the resilience of the North's natural assets is also an investment in the region's future prosperity, and brings with it huge opportunities – not only by contributing towards the UK's net carbon target and creating sustainable and secure jobs, but increasing public health and enhancing the natural beauty of the North's landscapes. Restoring and enhancing nature is a win-win scenario (Helm 2019), with huge potential benefits for people, planet and the economy.

3.

THE WAY FORWARD

This section explores what we should aim to achieve through investment in the North's natural assets. It sets out some of the major obstacles and policy opportunities that can be used. It also makes the case for a pan-regional spatial plan to direct strategic investment in the North's natural assets, to sit alongside and compliment a national policy framework and efforts at the local level.

There is a broad, emerging consensus on the need to invest in the natural environment. However, at present, there is little evidence of action and investment at the scale necessary to deliver upon the promises made.

At a government level, the 25 year Environment Plan represents the government's broad aim to:

"deliver cleaner air and water in our cities and rural landscapes, protect threatened species and provide richer wildlife habitats [and...] an approach to agriculture, forestry, land use and fishing that puts the environment first".

The plan sets out the following 25-year goals which the government aims to achieve:

1. clean air
2. clean and plentiful water
3. thriving plants and wildlife
4. a reduced risk of harm from environmental hazards such as drought and flooding
5. using resources from nature more sustainably and efficiently
6. enhanced beauty, heritage and engagement with the natural environment.

The government also commits to managing pressures on the environment by:

1. mitigating and adapting to climate change
2. minimising waste
3. managing exposure to chemicals
4. enhancing biosecurity.

However, environmental groups, while praising the scope and ambition of the plan, have expressed frustration at the lack of concrete plans and details from the government that would indicate that it is serious about putting its stated vision into practice (see, for example, Friends of the Earth 2018, Client Earth 2018).

For example, the Committee on Climate Change calculate that the government's net zero target⁴ will require a "transformation in land use" across the UK, notably increasing UK forestry cover from 13 per cent to at least 17 per cent by 2050, restoring at least 50 per cent of upland peat and 25 per cent of lowland peat, encouraging low-carbon farming practices, planting bioenergy crops and

⁴ The **2050 net zero target**. In 2019, the UK became the first major economy in the world to pass laws to limit its carbon emissions to net zero. The target will require the UK to bring all carbon emissions to net zero by 2050. Currently, the UK is off track to meeting this goal (see <https://climateactiontracker.org/>), which itself has been criticised for being too conservative.

reducing the consumption of beef, lamb and dairy by at least 20 per cent per person (CCC 2020).

This will require a radical improvement in progress to date. Along with other significant areas such as transport, buildings and waste, progress in emissions reductions in land is significantly behind what is needed for the government to meet its current carbon budgets, which themselves will need to be updated to reflect the new net-zero target for 2050 (CCC 2019).

Elsewhere, there is a significant and growing evidence base of the contribution of natural flood management techniques, and a strategic and joined-up approach to resilience and land use (Environment Agency 2017). Indeed, there are already efforts taking place, including collaborative partnerships such as Living with Water in Hull and East Riding of Yorkshire, to develop a more integrated and comprehensive flood strategy at the local level. However, there are several features of the current policy framework, not least England's over-centralised system of governance, which means that investment tends to be biased towards capital investment in hard infrastructure schemes to protect those properties with lowest flood resilience (Hunter 2019a).

Changing this will require a systematic transformation of how the natural environment is treated within policymaking, from Westminster to the pan-northern and local levels. The current policy context that must be navigated is set out below.

CHALLENGES

Throughout our fieldwork for the Natural Assets project, several major and inter-related challenges recurred. The most important include the following.

1. The role of the natural environment is overlooked in public policy

Mainstream policymaking treats the economy and the environment as separate entities, with scant regard for the interconnections between the two (Raworth 2017). Often, the costs of investing in natural assets or infrastructure are seen as conditional upon economic growth, rather than as a driver of economic vitality in the first place. Instead, environmental protection is seen as an externality to be managed (ibid). This extends to decision-making regarding public investment, including mainstream planning processes, which tend to focus on the mitigation of risk and damage, rather than the benefits of investment. This is true in the 'Northern Powerhouse' as much as it is elsewhere: although there is growing interest in the 'clean growth' agenda, there is little or no consideration of the natural environment and its foundational role in the economy within strategic debates at both a city-region and a pan-Northern level – which instead tend to focus on investment in physical infrastructure, primarily to boost productivity in frontier industries and high growth sectors (Raikes, Millward and Longlands 2018). Policymaking has also been urban in focus – with cities, and city regions, at the forefront of investment, including through devolution deals (ibid).

The UK's highly centralised system of governance plays a part in this. In our political system, which is unlike that of all other comparable nations, accountability for almost all public spending ultimately runs through HM Treasury in Westminster. Evidence from the last decade indicates that the Treasury has repeatedly and consistently undermined plans to invest in the natural environment, including action on climate change and investment in renewable energy, even though successive governments from 2010 have had clear objectives such projects (Meadway 2019).

At a subnational level, organisations that have statutory responsibilities for elements of the North's natural environment often lack a 'seat at the table' in decisions taken about planning and the economy, including within combined

authorities and strategic discussions about the ‘Northern Powerhouse’. Only a few of the North’s local enterprise partnerships, for example, have a representative for the natural environment on their boards, and most local strategies tend to reference nature only as part of its visitor economy ‘offer’.

This approach risks underplaying the value of the benefits that natural assets generate: from economic and environmental opportunities such as carbon capture and storage to the wider social benefits of leisure and recreation for health and quality of life. It also risks overlooking the importance of building the resilience of the North to cope with future environmental shocks, including the likely increase in risks from flooding, increasing pressures on water supply and wildfires.

2. A complex institutional landscape and a wide range of actors

There are a large range of organisations that work across elements of the natural environment. This includes government agencies and departments (Defra, Environment Agency, Natural England, Forestry Commission), water companies, statutory agencies (national parks and AONB), non-governmental organisations (Wildlife Trusts, RSPB, Woodland Trust, National Trust), and Local Nature Partnerships and Catchment Partnerships, as well as local authorities (county, district and borough councils, as well as metro mayors and combined authorities).

These different organisations have different remits, geographies and accountability mechanisms. While this is to an extent to be expected, given the complexity of the natural world, this can lead to poor coordination of investment – and obstacles to collaborative working. For example, the way that responsibility for flood resilience is assigned – with different actors including the Environment Agency, local authorities, water companies and highways agencies all responsible for different aspects of flood risk management – leads to suboptimal outcomes as no one organisation has an overview of the most useful way of spending public money.

In theory, the remit of the Environment Agency provides scope for it to act as a catalyst for a more holistic and systematic approach, however it lacks powers to hold wider stakeholders to account. What is more, its capacity has been significantly undermined by a decade of cuts to its budgets (see box 3.1).

Box 3.1: Austerity

Huge cuts to the budgets for the bodies charged with environmental protection, such as the Environment Agency and Natural England, have had a significant impact on their capacity, not least in terms of widespread reductions in staff. At the same time, staff have been seconded into Defra to assist with planning for Brexit. This has significantly undermined their ability to enforce standards and build resilience in the natural environment.

Since 2010, government-funded revenue for the Environment Agency has reduced by almost a quarter in real terms. Despite government rhetoric about protecting communities from flood risk, funding for flood and coastal erosion risk management is now roughly equivalent to what was spent a decade ago, while the budget for environmental protection has been slashed by almost three-quarters (73 per cent).

The budget for Natural England has been cut from £242 million in 2009/10 to £96 million for 2017/18 – in real terms this is equivalent to a 70 per cent reduction. Staff numbers have been dramatically reduced from 2,500 to an estimated 1,500, and many employees were seconded into Defra in order to assist Brexit preparations. The Natural England chair has stated that staff are experiencing ‘enormous stress and strain’ because of the impact of the cuts (Barnett 2019).

These cuts have had a significant impact on the ability of these organisations, whose job it is to protect and enhance England's natural environment and its wildlife, to operate effectively. Over the past decade, there have been large reductions in a range of enforcement activities, and on engagement with planning applications (Unchecked 2019). The cuts have also had a significant impact on the collection and analysis of data on the natural environment (Unearthed 2019).

There have also been significant reductions in the budgets of protected landscape bodies, as well as local government (who have responsibility for the management of some areas of countryside, as well as urban parks and woodlands).

3. Land use

More generally, trying to change how land is used involves engaging with those who own and manage it. Land owners and managers comprise a large and highly diverse group of actors with a wide range of motivations – from highly commercial, with income completely dependent on land management (and associated public subsidies); to life-style operators who have substantial income outside their land management (Buckwell 2019).

A key policy lever is the current system of public subsidies for land management, in particular the payments made to farmers through the common agricultural policy (CAP). Funds directed through CAP pillar 1 are paid to farmers to keep land in productive agricultural use.

While there is support through CAP pillar 2 to support farmers who take measures to improve the environment this fund is significantly less than the funding available through pillar 1. As such emissions from farming have been flat since 2005 (Springford 2019)

As IPPR North have previously argued, a place-based approach to rural policy offers the best mechanism to address national and global issues by responding effectively to local need and diversity. Within this, environmental protection and sustainability issues, including flood management, should be given high priority and policy should encourage multi-agency working across political and economic geographies where this can address specific issues (Cox et al 2017)

Brexit offers an opportunity to design a better system and, to its credit, the government has taken a significant step to change this for the better. The first drafting of the Agriculture Bill will introduce a replacement for the CAP, intends to support farmers to work more innovatively, and to protect the environment, ensuring that public money is directed towards public goods such as flood resilience, healthy soil and increased biodiversity. If this bill is enacted in its current form then this would represent a major step forward with regard to proper environmental management.

More generally, there is growing interest in who owns land, and the extent to which their incentives align with the public good. Land in England is treated as a private commodity – unlike Scotland there is no codified responsibilities for landowners that sit alongside and compliment their rights.

Comprehensive data on who owns land in the North is unavailable to the public. But partial analysis strongly suggests that their ownership is dominated by a small group of people and organisations (Shrubsole 2019). This includes public sector organisations and others, such as conservation trusts and water companies, who have, to varying degrees, a vested interest in contributing to the health and

resilience of their land, but other landowners, for example those of grouse moor estates, have tended to act in ways that are not conducive to the long-term health of the wider upland ecosystem. This is implicitly acknowledged by the government's recent voluntary compact for landowners, which encourages (but does not compel) landowners to stop harmful land management practices such as moorland burning.

4. A lack of regional planning framework for the North

As IPPR North, and others,⁵ have argued repeatedly, the UK is being held back by a lack of spatial planning at a regional level.

The UK is unique in the European policy context in having no regional tier for land use planning (IPPR North 2016). During the era of the regional development agencies, there were moves to create a regional tier which was known as the regional economic strategy (RES), combining both economic and land use strategy and coordinated by the regional development agencies (North West, North East and Yorkshire and Humber). However, the regional development agencies were abolished in 2010 and with them went the RES and there has been no spatial planning mechanism to plan and coordinate investment in the region. Instead, individual local authorities have responsibility to set housing numbers and devise their local plan. They are encouraged to work collaboratively with other local authorities under the 'duty to cooperate' but the extent to which this mechanism is effective is an area for debate. The local enterprise partnerships (LEPs) set up to replace RDAs have no formal spatial planning powers.

We need a pan-regional approach to spatial planning which puts the natural environment at the heart of mainstream decision-making – to ensure that there is a *net environmental gain*, including offsetting any environmental damage, in spatial planning and that the long-term effects of investment (including development and infrastructure spending) take account of the likely impacts upon economic and health resilience of further degradation of the natural environment. This is already being pioneered by Greater Manchester Combined Authority⁶

This will involve a repositioning of the natural environment as one of the primary assets of the region, underpinning the health and wellbeing of our population, as well as providing a foundation for a successful economy. This will require everyone to play a part in its future health – especially the North's leaders.

5 See <http://uk2070.org.uk/>

6 See <https://naturegreatermanchester.co.uk/gm-to-produce-first-city-wide-biodiversity-net-gain-guidance/>

4.

A PLAN FOR NATURE IN THE NORTH

This section summarises the case for strategic investment in the North's natural environment, and sets out recommendations for policymakers.

The impacts of climate breakdown, both now and those forecast for the future, bring the foundational role of the natural environment to the health and prosperity of us all. From water supply, to flood resilience, to food security and carbon sequestration, a resilient Northern economy and a healthy population depend upon a thriving natural environment.

But without action to reverse degradation of our natural environment, and to build resilience in the face of climate change, we risk undermining the strong foundations upon which the Northern economy is built. Not only that, but we will fail to deliver upon our responsibilities to each other, to future generations and the natural ecosystems that we are a part of.

With the right investment, coordination and management, nature-based solutions could provide many more significant benefits to the North's economy and its people. These include:

- job creation, skills investment and 'levelling up' the UK economy. The government has already signalled its desire to invest in the North's economy, through the 'Northern Powerhouse' initiative, its Industrial Strategy and, more recently, its intention to 'level up' the UK economy. Investment in the North's natural assets should form a core part of a long-term and sustainable approach to economic development in the region – and would deliver tangible benefits to regions and local areas, including many parts of the rural economy, that have been overlooked by national policymakers for decades (Cox et al 2017). This is all the more urgent, given the likely impact of COVID-19 on the North's economy.
- increased resilience – in the North and across the UK. Natural flood management, at scale, can deliver enhanced greater flood resilience, which reduces the potential costs to the taxpayer and provides a more solid foundation for investment in the Northern economy. Not only that, measures to maintain a healthy surplus in the supply and demand of water could enable parts of the region, notably the North West, to contribute to national water security through trading schemes. Restoring peatlands would reduce the likelihood of future moorland fires
- public health and educational benefits of increased access to nature and the countryside, in particular for those least likely to access nature (including those living in the most deprived areas and people from Black and Ethnic Minority groups).

To achieve this, we need government to step up to the challenges and opportunities that the North's natural assets present. While the intent and ambition of the 25 Year Environment Plan and the Agriculture Bill are encouraging, there is a huge challenge in implementing them effectively, given that they require a cross-governmental approach.

IPPR's Environmental Justice Commission will publish work later this year on the changes needed to the national policy context in order to reduce net carbon emissions through land use. This will include a focus on rewilding, improving soil quality and boosting biodiversity. This research will set out a comprehensive set of recommendations for the UK government in Westminster.

The government needs to demonstrate that the principles underpinning the 25 Year Environment Plan are embedded into the priorities of other departments, notably BEIS, MHCLG and the 'Northern Powerhouse' initiative, as well as the Treasury. Without a cross-governmental approach then efforts to build environmental and economic resilience through investment in nature will lack the scale and coordination necessary to make a substantive difference.

To compliment, and catalyse, action at a national level, the North should take the lead. Reflecting the value of the region's natural environment, and the urgency of the threats posed by degradation and climate change, the North should aim to become a world leader in nature-based solutions to socio-economic and environmental challenges.

To do this, the North's leaders should work collaboratively, across the whole of the North, to develop a comprehensive Plan for Nature in the North that maps the region's natural assets, coordinates the activities of major institutions currently working in the North, and make a radical, yet realistic demand of Westminster for new funds and powers to put it into practice.

A pan-Northern approach would align the work of a wide range of stakeholders, and would target and coordinate spending to maximise the potential benefits to the UK's net zero target, as well as the health and prosperity of the North and its people.

There are several reasons why it makes sense for this to happen at the pan-Northern level, including the following.

- The scale of the North's natural assets: The region's uplands, river catchments and coasts are vast, and stretch across huge areas that often cross local government boundaries. Not only that, but the impacts, including the benefits that they bring to the economy and to society, accrue across the North as a whole: cities, towns and villages are all deeply connected to the health of natural systems beyond their boundaries.
- Their shared characteristics: The North's natural landscapes are diverse but at a regional level they share many common features that make them distinctive compared to the rest of England. For example, given the size of peatlands in the region, and the relatively high amount of agricultural land that is dedicated to low grade activities such as pasture, the North should be seen as a priority for public investment in natural carbon sequestration projects in upland areas and tree planting schemes at scale.
- The North's institutional landscape: The geography of the various bodies concerned with the North's natural environment is complex. The Northern level is the most coherent strategic geography at which each of these coalesce, albeit imperfectly. The Northern level is also the geography at which spatial planning takes place, including through Transport for the North.

Some of the foundations for this to happen are already in place.

First, while conversations about the 'Northern Powerhouse' have tended to focus on transport and skills (Raikes, Giovannini and Getzel 2019), but increasingly these have expanded to include wider policy areas. There is growing interest, for example, in the opportunities of the 'clean growth' agenda for the region. To date, this has focused primarily upon how to maximise its potential to provide low-

carbon energy. Although there are also plans for a 'Northern Forest', to date, tree-planting rates are low, in part because of a lack of funds. In 2018/19, just 104,000 trees were planted as part of the Northern Forest, equivalent to approximately 61 hectares (Forestry Commission 2019). The entire scheme aims to plant 50 million trees which would be roughly equivalent to 30,000 hectares. While not insignificant, this would increase tree cover in the North from 7.6 per cent to roughly 8.5 per cent - some way below what the CCC, and others, believe is necessary for carbon sequestration alone.

Second, there is also a growing acknowledgement of the need for a regional spatial plan for the North. As well as Transport for the North's strategy, which sets out a £70 billion plan for the region's transport needs, the One Powerhouse partnership, building on IPPR North's work on a blueprint for a Great North Plan, will shortly publish a draft spatial plan for the region. However, to date, there is no single overarching plan for nature.

Third, there are myriad local efforts to build greater environmental resilience. For example, the Mersey Forest is a growing network of woodlands and green spaces across Cheshire and Merseyside. The Living With Water Partnership is an award-winning collaboration in Hull and to build greater resilience to flooding, including by coordinating local investment in natural flood management. Alongside, the work of the Regional Flood and Coastal Committees, and the local nature partnerships, these projects, and many more, demonstrate the capacity of local actors to demonstrate leadership and creativity. However, they tend to face the same challenges described in section 3. While natural assets are a key priority for many organisations in the North, there isn't a mainstream policy narrative which articulates environmental opportunities and challenges and their relationship with northern prosperity. As such, these projects tend to remain on the periphery of efforts to attract investment in the Northern economy.

What is needed is a pan-regional effort, led by the North's leaders, to join up and coordinate local efforts to build environmental resilience, and to set out a strategic Plan for Nature, that will make an unanswerable case for new powers and funds from Westminster. Leading by the North, for the North can allow for leaders to embed social and environmental justice into the wider agenda to 'level up' the country.

RECOMMENDATIONS: BUILDING THE FOUNDATIONS FOR A PLAN FOR NATURE IN THE NORTH

Recommendation 1:

Northern leaders, and organisations with a strategic interest in the health of nature in the North, should create a joint forum for discussion with and, where appropriate, aligned decision-making across the North

In order to bring the voice of nature into discussions about the future of the region, a joint forum for nature in the North is needed.

The function of such a group would be:

- to support and inform the development of a spatial plan and accompanying investment strategy for nature the North
- to be consulted on strategic decision-making in the North
- to promote and support projects to restore nature and increase public access to the North's natural environment
- to provide capacity and to advise statutory bodies including Transport for the North, Mayoral Combined Authorities, local councils and LEPS.

Membership could include senior representation from relevant national organisations (such as Environment Agency, Natural England, wildlife and conservation charities etc) as well as utilities companies, landowners (such as National Trust), as well as representatives from NP11 and local government.

This could build upon the nascent Nature North group, which comprises membership of key nature and heritage organisations across the region.

To begin with at least, this would be a voluntary, non-statutory group. It would be led by the North, for the North and would be focused on building a collective voice, nurturing partnership working, and aligning the power of constituent members. Over time, and depending on whether it was considered necessary, its status could evolve towards more formal arrangements, along the lines of Transport for the North, which has statutory powers to produce an investment strategy, to be consulted on strategic decision-making in the North.

Such a group should inform the development of a strategic vision for nature in the North, and a spatial plan for nature (as set out in recommendations 2 and 3).

Recommendation 2:

Northern leaders, including the metro mayors, the N11 group of LEPs, Transport for the North and NHS Regional directors should work with statutory bodies for nature such as the Environment Agency and Natural England, Protected Landscape authorities, and water companies, as well as Environmental NGOs including the Wildlife Trust, RSPB, and National Trust, to agree a strategic vision for nature in the North, incorporating a regional Nature Recovery Strategy, with an ambitious yet realistic outcomes framework for what should be achieved.

Such a vision would be co-produced between partners, and would draw upon and in turn inform the work of local and central government partners, statutory agencies, as well as wider stakeholders. It would also form the basis of an offer to government in Westminster – setting out how, with the right funds and powers, the North of England can build a greener, more resilient, more productive, more inclusive low carbon region.

Such a plan should form a major component of a pan-Northern plan for recovery following the Covid-19 pandemic, which would tie into to Northern demands for an “economic rethink” post-Covid (Walker 2020), as well as complementing the strategic aims of the government’s 25 Year Environment Plan and its stated commitment to ‘levelling up’ the UK.

From our research, and for illustrative purposes, we believe a vision for Nature in the North could be based on the following five pillars.

1. The North leads the way in developing nature-based solutions to climate change. This could include a target to increase tree cover in the North to 19 per cent by 2045.⁷ This would entail a radical expansion of the Northern Forest project and others, and would mean planting 0.5 to 1 billion trees in the next 25 years. It would also mean prioritising peatland restoration, including lobbying government to end highly damaging practices such as moorland burning.
2. Nature in the North is resilient and thriving. This could include, for example, commitment from Northern leaders (including the Mayors, local authority leaders and the NP11) to support and encourage efforts to increase river, soil and air quality, as well as measures to protect and enhance biodiversity, for

⁷ This would be aligned to various other calls for change. The Committee on Climate Change proposals to plant woodlands and restore peatlands are key components to allow the UK to achieve net zero emissions by 2050, Rewilding Britain are also proposing rewilding 25 per cent of the UK; and Friends of the Earth are calling for a doubling of tree cover to 26 per cent of the UK by 2045.

example, by planning wildlife corridors, identifying areas for rewilding, and supporting nature's recovery.

3. The North has a high degree of resilience to flooding and water shortages. This could include ensuring that flood resilience is a central consideration of spatial plans for development and infrastructure at a regional and sub-regional level, as well as efforts to shift public attitudes towards water and flooding, as well as a radical rethink of land use, to include far greater investment in and maintenance of natural processes for flood management
4. The North's economy protects and enhances the natural environment upon which it depends. This could include ensuring that pan-Northern and sub-regional strategic plans (eg for infrastructure and investment) are designed to maximise the opportunities for reducing carbon emissions, and for making the most of the economic and social opportunities that wholesale investment in nature can bring.
5. A thriving natural environment helps to build a healthier, more inclusive society in the North. This could mean concerted efforts to bring nature and green spaces closer to people in areas of deprivation, and to increase access to green spaces and the countryside for excluded groups.

Recommendation 3:

The government should provide funding for the development of a Plan for Nature for the North, including a mapping of the North's natural capital and an investment and management strategy for nature-based solutions to socio-economic, as well as environmental challenges. The plan should be owned and developed by Northern leaders, including the NP11 and the metro mayors.

Spatial planning has an important role to play in ensuring that efforts to restore and enhance the North's rich and diverse natural environments are done in a consistent, effective and fair way. It would ensure that investment in nature is done in a way that maximises the potential social, economic and environmental benefits and would provide a platform for a diverse range of organisations, authorities and stakeholders to collaborate on establishing common priorities across the region.

A pan-regional spatial Plan for Nature, aligned to the overarching vision for nature in the North, would set a trajectory around which policy and investment can shape, and would inform what demands should be made of government for new powers and funds to deliver it.

The plan should include:

- a comprehensive mapping of the North's natural environment, including a natural capital account for the region, and a nature recovery network that will identify how to restore nature in a joined up and effective way.
- a strategy for investment and management, designed to protect and enhance the North's natural environment in a consistent way that will:
 - maximise carbon sequestration
 - build greater resilience from floods and water shortages
 - preserve and enhance the North's natural beauty
 - ensure economic activity enhances the natural environment and support and sustains biodiversity
 - improve health and wellbeing
 - increase access to nature for excluded groups, including those living in the most deprived areas and people from black and minority ethnic groups.

Recommendation 4:

The government should demonstrate commitment to a Plan for Nature in the North, by supporting its development and by providing substantial, long-term and devolved funding to put it into practice.

The size of this funding would be determined by through a Plan for Nature in the North, which would include an evidenced business case for investment in the North's natural environment. However, we envisage that the size of investment would be roughly £50–100 billion over the next 25 years – this is broadly comparable to the scale of funding needed to deliver Transport for the North's Strategic Investment Plan.

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