NATIONAL PARKS AND THE CLIMATE EMERGENCY

A REPORT BY CAMPAIGN FOR NATIONAL PARKS
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CONTENTS

FOREWORD

The climate crisis is the biggest global threat we've ever faced. In order for this planet and its inhabitants to survive and thrive, there is an urgent need to address climate change, and to halt and reverse the decline and loss of biodiversity. National Parks have a key role to play in this.

The nature and climate emergencies are intimately connected in terms of both their consequences and their solutions. This report focuses on the climate emergency, but we recognise that these outcomes must work in parallel.

The COVID-19 pandemic has been a pivotal moment. It has given even more impetus and focus to our thinking on the vital contribution of National Parks, their landscapes, and ecosystems. The changing climate is already having a significant impact on these precious areas, and the need to respond is urgent.

Our National Parks are very special places and Campaign for National Parks has long been their champion and defender. With this report we want decision-makers to understand the importance of ensuring our National Parks are fully equipped to combat climate change and contribute to achieving national and global targets for carbon reduction.

The climate challenges we face have devastating consequences for us all. Immediate action is needed, but it must also be sustained for the longer term. Climate change is not just a short-term threat.

This report identifies that much positive action is already happening, but also that there is more that can be achieved: with the right leadership, the right tools, and adequate resources. In order for this to happen we must be honest about what does not work now and put in place the measures needed to ensure that more effective action can be taken. Without reform to the current statutory purposes of National Parks, additional powers and long-term funding solutions, the scale of change needed to tackle the climate emergency will not be achieved.

National Parks were founded on a vision for a better world, and we present our findings in the spirit of wanting to ensure that all the National Parks in England and Wales can contribute to a better future by tackling the most pressing issues of our time.

Campaign for National Parks is committed to pressing for the reforms and action needed. This report, which will be shared with politicians and other decision-makers, outlines the current lay of the land and the changes needed and we hope it will lead to bigger conversations. We will continue to bring partners together to identify further solutions. And we will engage the wider public with issues around climate change and nature recovery through thought-provoking storytelling.

Together, we can ensure National Parks are enabled to play a leading role in tackling the climate emergency.

Janette Ward, Chair – Campaign for National Parks

1. INTRODUCTION

National Parks are our finest landscapes with the highest level of protection. Their statutory purposes are to conserve and enhance wildlife, cultural heritage and natural beauty (the "conservation purpose"), and to promote opportunities for public enjoyment and understanding of their special qualities (the "recreation purpose")[1]. There is also a duty on National Park Authorities (NPAs) to seek to foster the social and economic wellbeing of the local communities within the National Park when pursuing these purposes. There are ten National Parks in England, covering almost 10% of the country and three in Wales, covering 20% of the country.

Campaign for National Parks wants to ensure all these National Parks are, not only, fully equipped to meet the challenges posed by climate change but are also able to play a leading role in combating climate breakdown. This report examines what NPAs are currently doing and highlights further actions that NPAs, Government and other stakeholders need to take. It is based on discussions with NPA members and officers and relevant information published by the NPAs and others. It is not intended to be a comprehensive assessment of all the climate-related activity in the Parks but instead provides an overview of key activities at a particular period in time. This is a rapidly changing area and inevitably that will be some developments that we won't have been able to include. We are also aware that there are some relevant policy areas such as waste that we have not been able to address for reasons of space and time.

Covid-19, the associated lockdowns and economic downturns have had a significant impact on many of the activities NPAs had planned during the period this report was being produced. In addition, there has been a huge increase in visitors to National Parks whenever lockdown restrictions have eased. This has led to unprecedented levels of traffic and congestion as well as problems with increased litter and inappropriate wild camping. This has presented both new challenges and new opportunities for NPAs. However, the NPA contacts we spoke to stressed that tackling the climate emergency continues to be high priority and highlighted the positive impacts, such as reduced organisational resistance to home-working and the numbers of first time visitors to National Parks.

A note on terminology: We have used the term net zero throughout the report as this expression is commonly used by the NPAs and the Welsh and Westminster Governments. For further information about definitions see Appendix A.

2. THE NEED FOR ACTION

The IPCC warned[2] in 2018 that urgent action is needed in order to limit global warming to 1.5°C by 2030 and that without such action there will be an even greater increase in the risk of extreme weather events such as floods, droughts and heatwaves.

In April 2019 Senedd Cymru became the first parliament in the world to declare a climate emergency. Wales is aiming for net zero before 2050, and has committed to a net zero public sector by 2030. In June 2019 the UK became the first major economy in the world to set a statutory requirement to meet net zero emissions by 2050, as recommended by the Committee on Climate Change (CCC). In December 2020 the CCC published updated advice to Ministers[3] which describes the 2020s as "the decisive decade of progress and action". Their report makes it clear that the UK will not achieve net zero by 2050 unless much stronger action is taken across a range of policy areas including transport, industry, buildings and agriculture, as well as energy. It also highlights the importance of the UK demonstrating global leadership in 2021 given its role as host of both the G7 Summit in June and the UN Climate Change talks (COP26) in November. The UK Government has subsequently made a commitment to reduce emissions by 78% by 2035 compared to 1990 levels[4]. This target, which will bring the UK more than three-quarters of the way to net zero by 2050, is due to be enshrined in law by the end of June 2021.

An earlier report from the CCC[5] provided evidence that parts of the UK's natural environment, such as blanket bogs and some bird species, would be permanently lost, if global temperatures were allowed to increase to 4°C. The State of Nature 2019 report[6] also identified climate change as one of the biggest threats to wildlife globally and highlighted the continued loss of the UK's biodiversity - over 40% of species have declined in number since 1970, and 15% are under threat from extinction. The threats of climate change and species extinction and the links between them have also been identified in the State of Natural Resources Report (SONARR)[7] for Wales.

It is now widely recognised that the climate and nature crises are linked and must be tackled together so it seems very appropriate that National Parks, as areas with a remit that includes conserving and enhancing wildlife, should be "be at the forefront of our national response to climate change" as proposed in the final report of the Glover review of designated landscapes in England (the Landscapes Review)[8] published in September 2019.

3. HOW THE CHANGING CLIMATE AFFECTS NATIONAL PARKS

We know that the changing climate is already having an impact on our National Parks, for example, warmer, drier summers increase the risk of wildfires on moorlands in the Peak District[9] and other National Parks while heavy rainfall resulted in devastating floods in the Lake District in 2009 and 2015[10]. Incidences of wildfires, flooding and droughts are increasing, and will have an even more significant impact in the future. As extreme weather events become even more frequent, there is likely to be an increasingly noticeable effect on the landscape, wildlife and cultural heritage in National Parks as well as the communities that live in these areas. The National Trust has recently published a map[11] which illustrates the threats posed by climate change and helps identify where interventions are needed. This map shows that the proportion of National Trust sites at high or medium risk of climate related hazards could increase from 30% in 2020 to 71% by 2060. Almost half the land the National Trust cares for is in National Parks so this provides a clear indication of the potential risk to the cultural and natural heritage in these areas.

The changing climate is also having an impact on some of the recreational activities for which National Parks are valued. For example, the British Mountaineering Council and the John Muir Trust are encouraging winter climbers not to tackle certain crags when the ground is not frozen completely solid to avoid damage to rare alpine vegetation[12] which would be protected when covered by ice.

Policies to tackle climate change need to incorporate measures to adapt to the impacts of climate change such as flood alleviation as well as measures to reduce carbon emissions, such as greater use of renewable sources of energy, as even if strong action is taken now, global temperatures will continue to rise as a result of the carbon that has already been emitted by human activities. Both adaptation and mitigation measures have significant implications for National Parks.

Many NPAs have now developed specific Climate Change Adaptation and Mitigation Strategies[13] and are undertaking detailed studies to better understand the impacts on their Park. For example, the Peak District NPA has recently produced a climate change vulnerability assessment[14]. This considered the impacts on the National Park's special qualities by assessing the extent to which specific features - habitats, species and heritage features such as dry stone walls – are vulnerable to the adverse effects of climate change. The research identified that the most vulnerable special quality is "Internationally important and locally distinctive wildlife and habitats" which are likely to be badly affected by extreme weather events, particularly as many are already in poor condition. The results of the assessment will be used to help identify and prioritise the most effective

adaptation measures to be introduced. The report includes recommendations for each of the assessed features but says that implementation of many of these is dependent on the introduction of "appropriate incentives and...changes to the regulatory framework". A key overarching recommendation is to seek to influence national land-use policy. The report does not consider climate change mitigation measures.

Research in Wales[15] on the impacts of climate change on landscape highlights that as well as the direct impacts resulting from more frequent extreme weather events, coastal erosion, wildfires and diseases affecting the type of land cover, there will also be indirect impacts as a result of changing decisions about the way in which land is used and managed. Research by Scottish Natural Heritage[16] found that mitigation and adaptation measures are likely to influence Scotland's landscapes more than the direct impacts of climate change.

A number of other recent reports have suggested that we will need to make significant changes to our lifestyles in the developed world if we are to succeed in reducing emissions to safe levels, with potential implications for everything from the way we travel, what we eat and how we build and heat our homes. For example, an IPCC report on Climate Change and Land[17] emphasises that reducing global warming to safe levels will require land-based mitigation and land-use changes including reforestation and bioenergy. The IPCC also highlight the need for policies to influence dietary choices and enable more sustainable land-use management and suggest the need to factor environmental costs into the price of food. The final report of the RSA's Food, Farming and Countryside Commission[18] argued that the need for radical changes to make farming more sustainable is as crucial as decarbonising our energy system. The Centre for Alternative Technology's Zero Carbon Britain report[19] also highlights the need for changes in land management practices and diets as well as food waste reduction, arguing that such measures would not only make a significant contribution to reducing emissions but would have other benefits, such as improved health, reduced reliance on imports and freeing up land for other uses. Many of the changes described in these reports could have significant implications for National Parks, for example, a move to a more plant-based diet could lead to changes in the type of farming practiced with consequent impacts on the landscape.

4. NATIONAL PARKS' ROLE IN TACKLING CLIMATE CHANGE

4.1. Westminster Government priorities

The idea that NPAs should be leading the way in adapting to, and mitigating, climate change is not new. It is one of the priority outcomes set out in policy guidance for the English National Parks and the Broads published in 2010[20]. However, this has not been carried forward into the Westminster Government's more recent policy paper on National Parks, The 8-Point Plan[21], which set out priorities for the period from 2016 to 2020 and makes no mention at all of the climate.

The 25 Year Environment Plan[22] for England, published in 2018, includes a number of commitments relating to both climate change and National Parks but makes no link between the two. However, a number of the Plan's commitments which are now being implemented, such as the creation of a national Nature Recovery Network[23] are things which will both contribute to climate mitigation and adaptation solutions and where National Parks have a key role to play.

More recently, the opportunities for tackling both the climate and nature crises together were recognised in the Westminster Government's Ten Point Plan for a Green Industrial Revolution[24] published in November 2020. Among other things this commits to restoring habitats to "combat biodiversity and adapt to climate change" and to using nature-based solutions to increase flood resilience. There is also a commitment to create new National Parks and AONBs with a milestone of 2021 set for the start of this process. However, once again there is no specific reference to the role of National Parks in tackling the climate emergency and it has been left to the NPAs to develop their own commitments on this (see section 4.3).

4.2. Welsh Government priorities

In contrast, the Welsh Government emphasised the role of National Parks in mitigating and adapting to climate change in its current priorities for designated landscapes, Valued and Resilient, published in 2018[25] and has reiterated this more recently in the annual remit letter[26] which sets out their funding settlement. The letter highlights the importance of the next few years as a time to take action on the climate and acknowledges that a lack of capacity is holding back NPAs' ability to undertake various work including biodiversity and climate change mitigation projects. It also confirms that the NPAs' core funding for 2021-22 will be increased by 10% compared to 2020-21 and sets out the Welsh Government commitments which NPAs will be expected to help deliver in return for this. These include woodland creation, the Natural Resources Policy and the National Peatland Action Programme. National Parks are identified as "natural places to trial new approaches and develop best practice" as part of a "green and just recovery".

The Welsh Government declared a climate emergency in 2019 and has set a target for a net zero public sector by 2030, which all the Welsh NPAs will need to comply with. The NPAs in Wales have welcomed and endorsed the Welsh Government's declaration of a climate emergency but they have not declared emergencies themselves.

Legislation in Wales including the Wellbeing of Future Generations Act 2015 and the Environment (Wales) Act 2016 provides a new framework for all public sector activities, including those of NPAs. This is aimed at ensuring that social, economic and environmental issues are being addressed holistically. However, it is worth nothing that whilst the Welsh Government is very supportive of NPA action on climate change in theory, there is still more they could do in practice to ensure the right supporting framework is in place (see, for example, section 5.4 on transport).

4.3. National Parks England Delivery Plans

In early December 2020, National Parks England published four Delivery Plans which provide new joint ambitions for the NPAs, including one which sets out how they propose to become leaders in tackling the climate emergency[27]. Each Delivery Plan defines key targets for the NPAs' work in this area and identifies how they are expected to be achieved.

The specific commitments on climate leadership include:

• Promoting the principles of "net zero with nature" (see section 5.3 for further details).

• Working collectively, and with constituent authorities, towards becoming net zero by 2040.

• Promoting nature-based solutions and supporting behaviour change beyond their boundaries.

• Leading by example, through achieving net zero NPAs by 2030 wherever practicable.

The actions to achieve this include:

• Securing additional funding to establish a consistent carbon budget baseline for all 10 National Parks.

• Employing a climate change officer in each NPA to coordinate data and lead delivery of the net zero plan.

• Promoting sustainable tourism and demonstrating the benefit of low carbon holiday destinations.

• Better communicating how changes in land use as a result of climate action might affect the landscape character of National Parks.

• Advocating for changes to national policy that will "provide NPAs with the tools locally to deliver net zero".

The document also lists various ways that other organisations can help including:

• Providing better data and information.

• Sharing evidence on climate impacts and solutions.

- Highlighting nature-based solutions as part of the COP26 Communications.
- Supporting local action such as the delivery of net zero neighbourhood plans.
- Promoting low carbon travel including encouraging car-free visits to National Parks.

The Delivery Plan is largely aspirational and does not contain any specific milestones other than the net zero target dates. Its effectiveness is discussed further in section 6.1

5. TAKING ACTION

5.1. Influencing the actions of others

National Parks are living, working landscapes and NPAs only own a small proportion of the land within them. The majority is owned by private landowners, including farmers, organisations such as the National Trust and the many thousands of people who live in these areas. For example, in Pembrokeshire Coast National Park, the NPA owns only 1% of the land, with the National Trust owning around 6%, and over 80% in private ownership[28]. NPAs must, therefore, work in partnership with land-owners and other key stakeholders if they are to secure changes to the Parks. One of the key mechanisms for doing this is through the five-year National Park Management Plans that NPAs produce and implement in partnership with stakeholders. These documents are often now called Partnership Plans to reflect the fact that they are developed and implemented by a range of organisations.

A lack of time and resources is a big issue both for individual NPAs and for taking action collectively. There is always a need to decide between competing priorities for the resources available and climate change is not currently included in the statutory National Park purposes, meaning that it may not always be given as much priority as it might otherwise. The Glover Landscapes Review proposed renewing these purposes to give them a stronger focus on nature recovery and public enjoyment. However, while Glover does propose that strengthened Management Plans should set clear priorities and actions for the response to climate change, there is no mention of the need to include climate change in the amended purposes which would be a missed opportunity. Glover also proposed the introduction of stronger statutory requirements on other bodies by strengthening the current duty of regard (often known as the S62 duty) and making it into a duty to further National Park purposes. Implementing these proposals would ensure that every National Park Management Plan sets out a vision and ambition for tackling climate change which is agreed and delivered in partnership with relevant stakeholders. We have produced a separate briefing which provides further information on our response to key proposals in the Glover Review[29].

Recommendation: The Welsh and Westminster Governments should ensure that NPAs are able to achieve more on climate change as quickly as possible by strengthening Management Plans; amending the statutory purposes; and introducing stronger duties on other bodies.

We do not yet know how the Westminster Government plans to respond to Glover's proposals. However, several NPAs have already significantly increased the focus on climate change in recent reviews of their Management Plans and have identified new actions in areas such as transport and land management. There tends to be a strong focus on activities such as tree-planting and peatland restoration in Management Plans as these are often easier for the NPAs to influence, than areas such as transport and housing.

It was clear from the NPA contacts we spoke to that most members are very supportive of their NPA's activity on climate change but in a few cases there can be resistance to particular measures such as transport due to high car dependency locally. In some cases, local authority appointed members were sometimes felt to be less supportive as they were reluctant for the NPA to be seen to be doing more than their own authority. In other it was suggested that there were benefits of having locally appointed members as it ensured the NPA was linked into the work of the local authorities, increasing the opportunities for joint working and pushing the NPA to take more action.

There was also a suggestion that it can be hard to get members to think strategically as they tend to focus on short-term operational issues and can take a very cautious approach, partly due to NPA reliance on government funding. A couple of interviewees suggested that having greater diversity on NPA Boards would help them think more independently and take stronger action on climate change. However, another member who had joined an NPA Board relatively recently, commented that even though short-term issues often take priority they had been impressed by the level of commitment to introducing long-term measures to tackle climate change.

It was also noted that the level of support from senior officers can have a significant impact, with one officer commenting on the fact that the appointment of a new Director had resulted in a significant increase in the priority given to climate-related activity. Including climate change in the statutory purposes of the National Parks would ensure that it became an integral part of the NPA's strategy and operations and was not dependent on the commitment and expertise of particular individuals.

If all relevant stakeholders are to contribute as effectively as possible towards achieving net zero, there is a need to support both NPA members and other stakeholders to develop an increased understanding of climate change and the actions to address it.

Some NPAs are already introducing measures to ensure that members take more account of the climate impacts in their decision-making, such as compulsory training. For example, Exmoor NPA is commissioning training on carbon literacy for both staff and members and the Peak District NPA now includes an overview of the climate change implications at the end of Board papers to ensure that these are considered alongside the financial and equalities implications which are already included on such papers.

Recommendation: All NPAs should introduce measures which increase the capacity of members and other local stakeholders to make effective decisions on climate-related activity. This should include the delivery of appropriate training and inclusion of climate implications on committee reports.

Recommendation: The Welsh and Westminster Governments should ensure that the need to increase the number of members with climate expertise is taken into account when recruiting new members.

5.2 Using planning powers

Another way that NPAs can seek to influence climate action in their areas as well as taking action themselves is through their role as local planning authorities. NPAs are responsible for both producing Local Plans (Local Development Plans in Wales) setting out their policy priorities and for determining approval of development. They are already using these powers to ensure that climate change is considered in planning decisions and to introduce policies aimed at specific types of development. For example, the new Local Plan for Northumberland National Park[30] adopted in July 2020, includes a table which shows how climate change is integrated throughout the Plan and Dartmoor NPA has commissioned research to assist in the development of a carbon emissions reduction policy for new residential development[31].

Planning policies can also be used to encourage the delivery of renewable energy infrastructure in a way that is consistent with National Park purposes. Small-scale infrastructure such as individual wind turbines and free-standing solar arrays are more likely to be appropriate but only in certain locations and some of the NPAs are making particular efforts to enable this. For example, Exmoor provides advice in their Local Plan about the areas of the Park which are considered suitable and the scale of development that would be appropriate[32], the North York Moors has produced a Supplementary Planning Document on Renewable Energy[33] and the Brecon Beacons provides advice on its website[34] for those thinking of implementing small-scale hydro-electric schemes and other types of renewable energy.

However, the impact NPAs could have with their planning powers is limited by both national priorities and the need to accommodate the views of a broad range of stakeholders, not all of whom are necessarily fully supportive of the

measures needed to achieve net zero. Some of the NPA contacts we spoke to felt that weaknesses in the national planning policies and objections from other stakeholders such as the house-building industry have sometimes limited the extent to which NPAs can include strong policies on climate change in their local plans.

Even where strong policies are introduced, the relaxation of planning controls and the introduction of new permitted development rights means there is now more limited opportunity to influence the climate impacts of certain types of development. Glover recommended a review of permitted development rights in designated landscapes with a view to adding other rights to the list of those which do not apply in these areas.

Recommendation: The Welsh and Westminster Governments should review, and potentially remove permitted development rights in designated landscapes in order to ensure that the use of such rights does not undermine NPA climate action.

There is also a concern about "the performance gap" with many new homes not delivering the energy efficiency standards they are designed to achieve, suggesting there is a need for more stringent building regulations. Finally, the impact of local planning policies is also limited by the fact that new development accounts for a small percentage of buildings so retro-fitting existing properties will be essential. Many of these issues are common to all local planning authorities. Recent research into local authority powers relating to climate action[35] also identified the need for a longer term framework of support to ensure that the entire building stock can be converted to net zero. However, National Parks contain a high percentage of older properties, including many which are listed or in conservation areas, and such properties are often more expensive (or even impossible) to upgrade.

In August 2020, the Westminster Government published a Planning White Paper[36] setting out proposals for major reforms of the entire planning system and a Planning Bill is anticipated this autumn. There are concerns that proposals place too great an emphasis on speeding up housing delivery and there is too little consideration of energy efficiency and other ways in which the planning system can contribute to tackling the climate emergency.

Recommendation: Welsh and Westminster Government's planning policy and legislation needs to be much more clearly focused on tackling the climate emergency and should provide much stronger support for measures such as zero-carbon homes.

5.3 Delivering nature-based solutions

The need to adapt to, and mitigate for, climate change offers significant opportunities to demonstrate the potential to

deliver natural solutions in areas such as flood prevention and carbon storage in National Parks. The CCC has highlighted the need for an accelerated programme of peatland restoration and the RSPB has emphasised[37] that this would also deliver a wide range of other benefits including enhanced biodiversity and improved water purification and flood defences.

Farming is an important part of the local economies of National Parks. The farmed area and the type of farming varies between the Parks, but most of the land in England's National Parks is used for farming, the majority of which is livestock based[38]. Following the UK's departure from Europe new mechanisms for supporting environmental land management have been developed in both England and Wales to replace the Common Agricultural Policy. As part of these schemes, farmers and other land managers will be rewarded for managing the land in a way which delivers benefits for nature and the climate so there are new opportunities to ensure that land management is contributing to the achievement of net zero. The National Farmers Union has also set its own target of delivering net zero across the whole of agriculture in England and Wales by 2040[39].

A study commissioned by Exmoor NPA in 2013 examined how much carbon was stored in existing woodlands in the National Park[40]. This found that around five million tonnes of carbon (tCO2) is stored in Exmoor's woodlands, hedgerows and trees (around four million tCO2 in woodlands and another one million in hedgerow trees and free-standing, individual trees). The research estimated that the net reduction in greenhouse gas emissions resulting from existing woodland in Exmoor National Park is around 50,000 tCO2 per annum.

NPAs are already involved in delivering a range of land management projects which deliver both climate change mitigation and adaptation benefits. For example, Dartmoor and Exmoor NPAs are part of the South West Peatland Partnership[41] which is working to restore over 3000 hectares of peatland in total and which will achieve a carbon abatement of 1,013 tCO2 per year once completed.

There are details of a number of other existing land management initiatives in National Parks on the National Parks UK website[42].

One of the key challenges is identifying what kind of habitat improvement might be appropriate in particular locations. For example, tree-planting may not always be the most appropriate solution and NPAs are using Landscape Character Assessments, woodland strategies and other initiatives to identify where they should prioritise support for particular types of habitat.

Another major challenge involved in delivering more work of this nature is the availability of sufficient funding. In particular, there is a need for revenue support for staff costs as well as project funding particularly in terms of the preparatory work needed for major land management projects which involve getting agreement from a wide range of landowners and other stakeholders. In addition, the short-term nature of most project funding can make it difficult to retain staff, resulting in a loss of expertise and affecting relationships with stakeholders. Some NPAs have managed to draw in additional pots of money, for example from the National Lottery Heritage Fund, to help deliver these types of projects in partnership with others. However, effective action on climate change needs to be planned and delivered over the long term and cannot be dependent on one-off, stop-start project funding.

The NPAs across the UK are working together on a programme called "net zero with nature"[43] co-ordinated by National Parks UK (NPUK). This aims to secure at least £150 million over ten years to deliver nature recovery projects which can help contribute towards achieving net zero. The funding will be used to restore and protect forests, wetlands, meadows and peatlands within the National Parks and surrounding areas. NPUK has already identified a number of suitable projects and has recently announced a new partnership to secure public and private investment for these projects[44].

An example of one such project is the Great North Bog which is a peatland restoration project covering nearly 7000 square kilometres of upland peat across the designated landscapes of Northern England including four National Parks. It is being developed by the Yorkshire Peat Partnership, Moors for the Future Partnership and the North Pennines AONB Partnership[45] and aims to join up some of the existing restoration projects that these partnerships have already successfully delivered. The partners estimate that it will cost approximately £200 million over 20 years to restore the remaining areas of damaged peatland and that once restored the Great North Bog will avoid annual carbon losses of around 3.7 million tonnes per year.

Recommendation: The Welsh and Westminster Government's should provide multi-year and consistent funding to allow NPAs to demonstrate real leadership on tackling the climate emergency.

Recommendation: NPAs should be seeking opportunities to work outside their boundaries on major nature recovery projects such as the Great North Bog, which offer significant benefits in terms of mitigating and adapting to climate change.

5.4 Addressing visitor travel

There are around 100 million visitors to the National Parks of England and Wales each year, spending over £6 billion and supporting thousands of jobs. Tourism and recreation make a significant contribution to the economy of the National Parks. However, there is a very high level of car reliance among visitors and travel has also been identified as one of

the areas where further progress needs to be made in order to achieve net zero National Parks (see for example, the most recent progress report on the Lake District's carbon budget[46]). This is backed up by the CCC's most recent report[47] to Parliament in June 2020 which makes it clear that the UK is still not making adequate progress in introducing measures which will help achieve the net zero target and highlights that surface transport remains the largest-emitting sector in the UK, accounting for 24% of emissions in 2019 (up from 23% in 2018).

All of the NPAs are taking some kind of action to try and reduce car use among visitors and some have set specific targets for this. For example, in 2018, the Lake District NPA launched a new transport strategy aimed at reducing the proportion of visitors who arrive by car from 83% to 64% by 2040[48]. One area where nearly all the Parks have made progress in recent years is with regard to support for electric vehicle (EV) use by visitors. There has been a significant increase in the number of charging points available in most of the National Parks since 2015[49]. Some NPAs, such as the Lake District, also promote EV hire at railway stations within the National Park[50]. There is also increasing support for electric bike (e-bike) hire including working with local providers to help build visitor confidence in the use of e-bikes.

However, there is clearly a lot more that needs to be done as we highlighted in our 2018 report[51] on car-free travel. To date, the only NPA that has proposed radical measures to reduce car use is Snowdonia. Following a Parking and Transport Review in 2020[52] they have introduced measures such as a pre-booking system for visitors wishing to park cars in the busiest part of the Park. They have also recently consulted[53] on proposals to extend these restrictions alongside the introduction of a package of improvements to alternatives to the car, such as more frequent and better integrated bus services and the development of demand responsive services. Other measures proposed include the introduction of a "Visitor Access Pass" to give visitors easy access to these services and improved facilities for walking and cycling.

Although NPAs can use their planning policies to influence travel patterns, they do not have any powers or resources specifically relating to transport. The majority of public transport is delivered by private companies and primary responsibility for transport policy rests with the local transport authority (LTA) for an area. This means the NPAs will need to work in partnership with LTAs, private operators and others in order to secure changes to transport in their area. Some Parks are covered by a number of different LTAs, none of whom will necessarily prioritise the needs of visitors when making decisions about walking and cycling infrastructure or the planning of bus services. For example, there are six different transport authorities covering the Peak District. Not being the transport authority significantly limits the action that NPAs can take in an area which is vital for

tackling the climate emergency. Glover proposed a pilot for the Lake District NPA to be the strategic transport authority for its area and it is understood that two of the other NPAs are also now interested in being included in this pilot. We support this proposal and believe that, if given these powers and accompanying resources, NPAs should use them as an opportunity to introduce measures to restrict car use as well as improve alternatives to the car.

Unfortunately relevant national policy and strategy rarely considers the needs of visitors to National Parks. The Welsh Government's new Transport Strategy[54] includes a number of ambitions aimed at reducing the impact of cars on National Parks and improving access by sustainable means. However, there is a lack of specific measures in the Strategy to achieve these ambitions. There is a similar pattern in the New Bus Strategy for England[55] which was published recently. This acknowledges the need to improve bus services in National Parks but does not include any measures specifically aimed at addressing this. For example, there is no mention of how NPAs will be involved in the development or implementation of Bus Service Improvement Plans. In general, there is too little recognition in transport policy of the needs of visitors to the countryside. The Westminster Government recently issued a call for evidence to inform its rural transport strategy and did not make any mention of visitor travel at all. Similarly, central government funding for sustainable transport initiatives is often focused on urban areas and commuting journeys and there is much less support for rural leisure travel.

While there is far more that NPAs could already be doing to address visitor travel, changes will also be needed at a national level. This should include much stronger support for the kind of travel demand management measures, such as increased parking charges or road pricing, which will be required in order to achieve a radical reduction in car use. From comments made by those we spoke to it is clear that many NPA officers and members believe that national action is needed to address issues such as the cost and availability of public transport, and the use of high emissions vehicles, if they are going to have anything other than a very limited impact on the emissions from visitor travel.

Recommendation: Welsh and Westminster Governments both need to provide the right supporting framework to allow NPAs to take effective climate action. This should include both making it clear that this should be a priority for National Parks and ensuring that policy decisions in areas such as transport are consistent with a move towards net zero. In addition, a pilot to test the use of additional powers and resources on transport by NPAs should be implemented in at least two National Parks to assess the impacts in areas with differing levels of public transport, visitor numbers, lengths of stay etc.

5.5 Improving visitor understanding

The vast majority of NPA climate-related activity falls under the first "conservation" purpose i.e. it primarily relates to conserving and enhancing landscape, wildlife and cultural heritage. Such activities are clearly very important but there are also significant opportunities for the NPAs to raise awareness about the impacts of climate change through their second purpose responsibilities to promote enjoyment of the Parks. As well as encouraging the adoption of low-carbon transport choices, NPAs could be doing more to help visitors understand that the appearance of National Parks is going to change as a result of climate change and the measures needed to tackle it.

Most of the NPA members and officers we spoke to agreed that this was something NPAs should be addressing but acknowledged it was not something they had taken much action on yet. However, there are already some good examples of NPAs encouraging visitors to observe and record the changing landscape, for example, Pembrokeshire Coast NPA has set up a number of fixed point photography posts around the Coast where visitors are encouraged to take a photograph which can then be emailed to the NPA for inclusion in a time-lapse film which shows the changes. The locations of the photograph posts have been specifically chosen to record different kinds of changes such as erosion, changing vegetation and flooding, many of which are likely to be attributable to climate change, although it is notable that there is no mention of climate change in the information about this initiative on the NPA's website[56].

Exmoor NPA commissioned an artist to draw images of how the National Park looks now and how it might look in future and used these images in conversations with local communities and landowners to develop a shared vision[57] for the future of the Park. This initial work was to develop a nature recovery vision, which included the implications of climate change and further work is planned to engage with people on how the National Park is changing and may change in the future due to climate change, nature recovery, and the economic and policy drivers which will change how land is managed.

A number of the Parks are now integrating information about the climate emergency into their learning and engagement activities with schools and other groups.

More initiatives of this type would help both visitors and local residents understand the way landscapes are going to change. For example, it would be helpful for people to appreciate that while tree-planting is important in many of the Parks, it is not always the most appropriate solution to tackling climate change in a particular location. There needs to be more discussion about how best to include trees in the landscape, the importance of managing existing woodland effectively and the best way of supporting a range of habitats. Peatland restoration work can sometimes be controversial if it involves the removal of trees that have been planted in inappropriate locations in the past.

5.6 Supporting local communities

As well as being places that attract millions of visitors, National Parks are where thousands of people live and/or work. The total population of the National Parks in England and Wales is estimated to be around 412,000[58]. In pursuing the two statutory purposes of National Parks, NPAs also have a duty to seek to foster the economic and social wellbeing of local communities within the Park.

Local community action has often been a key driver for NPAs declaring a climate emergency and many are now introducing specific measures aimed at supporting emissions-reduction activity by local people. As part of its commitment to encouraging communities to take action themselves, the South Downs NPA is funding Community Energy South[59] to help establish community-led energy groups and projects across the National Park. The initiative will provide parish councils and local groups with access to relevant training and support them to apply for relevant funding. The New Forest NPA has recently invited schools and community groups to apply for small grants which support activities aimed at improving habitats, reducing carbon emissions and connecting new groups to nature[60]. Schools and youth groups have previously used the Sustainable Communities Fund to establish wildlife gardens and composting areas. Ideas suggested for the current round of funding include encouraging more walking and cycling and supporting more locally produced food. Pembrokeshire Coast NPA has recently changed the focus of its Sustainable Development Fund to support community led projects that contribute towards a reduction in carbon and help respond to the climate emergency[61].

Another way that all the NPAs support both local residents and visitors to take action is by organising volunteering opportunities such as footpath maintenance, hedge-laying and wildlife surveys. Many such activities are helping maintain and enhance habitats which provide nature-based solutions to climate change such as woodlands and peatlands and those who take part could potentially gain a better understanding of how the changing climate is affecting such habitats. However, volunteers often drive long distances to participate so such activities may actually result in a net increase in emissions. The Yorkshire Dales NPA has identified the need to reduce volunteer mileage as one of the key challenges they need to address if they are to achieve their net zero targets[62].

There are also some very good examples of the voluntary sector supporting community action in response to the climate emergency. For example, in October 2020, Friends of the Dales and the North Craven Heritage Trust organised the

Green Dales Conference[63] which brought together over 100 local politicians, conservation experts and members of the public to consider what had been achieved to date and identify the challenges that remained. Following the conference they published a set of challenges which are aimed at encouraging action by national and local government at all levels, landowners, farmers, businesses, statutory and voluntary sector organisations, visitors and individuals.

National Parks are national assets, funded by the taxpayer, and draw visitors from across the country so a wide range of people have a stake in their future. As this report has highlighted the climate emergency and the measures needed to address it are already having a significant impact on these areas and will continue to do so in future. It is essential to ensure that the needs of local communities, businesses, visitors and other stakeholders are all considered, both when helping people to understand those impacts and in planning how to address them. There has not yet been anything similar in National Parks to the Climate Assembly UK[64] or the Environmental Justice Commission[65] which have been used elsewhere to help develop recommendations for tackling the climate emergency in a way that is fair to all concerned. As National Parks play many different roles and are valued for many different reasons, a similar initiative for a National Park would ideally need to involve representatives of the general public as well as residents, land-owners and visitors to that particular Park.

Recommendation: A "Nature, people and climate" commission or similar mechanism to be established in order to bring together representatives from all those with an interest in National Parks – landowners, residents, visitors, non-visitors and experts – to consider the changes needed and how best to achieve them. We would like to see this piloted in at least two of the National Parks as soon as possible with a view to rolling it out to all of them.

5.7 Making the NPAs own operations net zero

While the NPAs can have a much bigger impact through influencing the actions of others, it is still important that they take action to address the emissions produced by their own operations, not least because they need to lead by example. The Welsh NPAs are committed to becoming net zero by 2030 in line with the Welsh Government requirement for public sector bodies and the English NPAs have also made their own commitment to net zero by 2030.

All NPAs have now identified ways of reducing the carbon emissions of their own activities through initiatives such as replacing pool cars with EVs and making buildings more energy efficient. Many have already taken action in these areas often with significant success. In some cases this has included a more comprehensive assessment of the impacts of their activities e.g. considering the emissions associated with the

food, cleaning materials and other products they purchase.

The Yorkshire Dales NPA claims that it is " 'de facto' already 'net zero' " on the basis that the sequestration of carbon from woodland that they have directly funded exceeds their own emissions[66]. Their aim is that by 2030, the carbon savings from the woodland they have funded will be 30 times the NPA's emissions, an objective which they describe as "extremely challenging and deliberately ambitious". They have set an interim milestone of achieving a reduction of 85%, with carbon savings at seven times their annual emissions by 2025, compared to 2005[67]. In order to achieve this, they propose to carry on funding woodland but have also adopted a Carbon Reduction Plan which includes a range of measures such as the installation of renewable energy systems and a move to EVs.

The messages and financial support coming from central governments have had a significant impact on NPA activity on climate change and the level of priority it is given at different times. A number of the NPA contacts we spoke to said that they had been doing a lot of work on climate change in the past but this reduced after 2010 when it became clear that it was no longer such a high priority for government. In many cases this previous work on climate change had resulted in a significant reduction in the NPA's own carbon emissions, for example, Northumberland NPA was able to reduce its carbon footprint by 49% between 2008 and 2014[68].

English NPAs used to receive a £250k per annum Sustainable Development Fund (SDF) from Defra which enabled a number of projects on sustainable transport, renewable energy and related initiatives as well as an officer in each Park. The level of activity on climate change reduced further after 2015 when NPA budgets were cut and Defra stopped providing the SDF. This sometimes meant that the NPA significantly deprioritised this area of work resulting in a loss of relevant skills and expertise. However, others were keen to stress that climate-related activity had instead been embedded in the work of the NPA and so had continued but perhaps with less visibility until recently. The SDF funding still exists in Wales and the Welsh NPAs all commented on the benefits of being able to make small grants to support projects such as micro-hydro schemes, e-bikes etc. Welsh NPAs also noted that there is a more supportive policy framework generally for this area of work in Wales.

The increased profile for the climate emergency in 2019, particularly the setting of the UK Government's target of net zero by 2050 had prompted many NPAs to place a greater focus on this area of work again. By the start of 2020, four of the English NPAs had declared a climate emergency, as had many of their constituent local authorities. Some NPAs had already set targets in advance of the nationally agreed ones set out in the NPE Delivery Plan (see section 4.3). For example, Dartmoor NPA's climate emergency declaration in

July 2019 includes a commitment to work towards the National Park Authority (as an organisation) becoming carbon neutral by 2025[69].

However, there are still mixed messages from central governments in terms of the priority given to climate change in policy decisions, such as support for road-building and airport expansions and a lack of clarity on the extent to which tackling the climate emergency should be a priority for National Parks (see section 4). The influence that national messages have on local decision-making was also one of the key findings in research that we published a few years ago on major planning decisions in National Parks[70]. It is clear that if effective action is to be achieved at the local level there needs to be a much stronger steer nationally backed up by financial support. This emphasises the importance of the recommendation included in section 5.4.

5.8 Establishing net zero National Parks

Reducing emissions for their own operations is only a part of what NPAs will need to do if they are to really take the lead on establishing net zero National Parks. Reducing emissions across the whole of a National Park area is far more challenging than reducing the emissions for a single organisation. It is particularly challenging in those Parks where there are high levels of production emissions[71], for example from industrial activity.

The Lake District was one of the first NPAs to set a carbon budget for the National Park and has been measuring local carbon savings every year since 2010[72], initially with the aim of reducing emissions by 1% per year against the 2010 baseline (this baseline was reviewed and recalculated in 2017). Emissions are calculated using a methodology[73] developed by Small World Consulting which calculates "the sum of the direct and indirect emissions that arise throughout supply chains of activities and products" and therefore includes, for example, emissions resulting from the purchase of goods by residents and visitors. The most recent progress report available 2019[74] shows a 4.1% reduction in emissions since 2010 due to local actions compared to a target of 9% and attributes a rise in emissions in 2019 in part to an increase in tourism.

A number of the English NPAs (including South Downs, Peak District and the Broads) are commissioning a joint study which will provide a common approach to the data and metrics they require as well as different scenarios that could apply in terms of meeting net zero across a National Park area. This will incorporate elements of both consumption and production based modelling and will allow the NPAs to monitor progress towards net zero National Parks on an annual basis. Other National Parks may also join later stages of this study.

The Department of Business, Energy and Industrial Strategy (BEIS) compiles the data-sets that local authorities in England use to set and monitor their targets on climate change. This data has only recently been made available cut to National Park boundaries meaning that it was previously very difficult to assess the impacts specifically within those areas. There was also a risk of double-counting if both the NPA and the constituent authority were setting targets and measuring reductions for the same area. The availability of this data now makes it easier to establish a consistent data set across the Parks and to measure progress against a baseline in order to see more clearly the impact of different initiatives. However, it took a lot of effort to convince BEIS to provide the data in the appropriate format and it is not certain that it will continue to be made available in future.

Recommendation: All relevant government departments should ensure that they make data available in a format which allows for consistent reporting of progress towards climate change targets in National Parks.

All NPAs are currently focusing primarily on carbon emissions but the need to consider methane and other emissions from farming was also noted by some of those we spoke to.

Net zero can either be achieved by balancing emissions with carbon removal or by eliminating carbon emissions altogether so there are some difficult choices to be made as to how best to do this. One example is the extent to which NPAs should be relying on carbon offsetting in order to achieve their net zero ambitions. The Dartmoor Climate Action[75] plan defines an offset as "an action intended to compensate for the emissions of carbon dioxide and other greenhouse gas emissions into the atmosphere as a result of human activity." These can be implemented either by purchasing carbon offset credits through a commercial scheme or by an organisation's activities on their own land.

It is possible to achieve net zero by only offsetting emissions and not reducing emissions and there is a risk that relying too much on offsets could be counter-productive if the potential carbon savings are used as a justification for not reducing emissions from other activities. There are also significant levels of uncertainty about exactly how much carbon different types of habitats store and for how long. For example, natural processes such as wildfires, could result in the release of carbon stored in woodlands or peatlands and peatlands need to be in good condition in order to be able to store carbon in the first place. To ensure that offsets are delivering the intended carbon reductions they must be independently verifiable, and robustly monitored to avoid double-counting. As well as being permanent they must also result in a real net reduction in emissions, taking account of any additional emissions resulting from their establishment, ongoing management and monitoring. Some of the processes required to implement nature-based solutions can be fairly carbon intensive, for example, helicopters are often used to transport materials to peatland restorations sites

which are inaccessible by other means.

As part of its Climate Action Plan[76], Dartmoor NPA has adopted an energy hierarchy which is aimed at ensuring the NPA does not simply offset its impacts and allow emissions to remain unchanged. Under their hierarchy the first priority for action is reducing demand, the next increasing energy efficiency and the third sourcing energy from low-carbon and renewable sources and they say that offsetting should only be used for emissions that are unavoidable after all these actions have been taken. However, the NPA notes that keeping to this hierarchy may require them to consider the possibility of not meeting their own target of achieving net zero by 2025 where "it is clear that investment in emission reduction, efficiencies, and sourcing green energy, rather than offsetting, would deliver greater societal and environmental benefit for current and future generations."

Dartmoor NPA has also committed to evaluating the lifestyle emissions before committing to investment in products and projects. So, for example, when considering whether to use EVs, they take into account factors such as the emissions created during the manufacturing process for both the vehicle and the battery and the source of electricity used to charge the vehicles, suggesting that the majority of the benefits of EVs are achieved when using 100% renewable electricity.

Other NPAs have acknowledged that they will not be able to achieve net zero targets without an element of offsetting and are looking into how to ensure that any offsetting included as peatland and woodland restoration projects is properly verified[77].

Recommendation: To avoid over-reliance on nature-based solutions carbon offsets, NPAs should adopt a hierarchy approach to ensure that offsetting is only being used as a last resort for their own emissions. This should be accompanied by clear standards to ensure that any offsets are high quality and long-lasting and genuinely delivering new carbon stores. There is also a need for research to provide a better understanding of the carbon reduction potential of nature based solutions.

6. CONCLUSIONS

6.1. Are the NPAs taking a strong enough lead?

NPE has described the Delivery Plans as being "rightly ambitious"[78] but is the one on the climate emergency ambitious enough? Could the NPAs be seeking to achieve net zero National Parks sooner than 2040? There are certainly examples of more ambitious commitments from elsewhere in the public sector. For example, the York and North Yorkshire Local Industrial Strategy sets out an ambition for the area (which includes two National Parks) to be carbon neutral by 2034 and then to become England's first carbon negative economy by 2040[79]. It will be hard for NPAs to argue that they are at the forefront of tackling the climate emergency unless they can

demonstrate that they are at least matching such ambitions.

To demonstrate real leadership, NPAs also need to ask for more powers, responsibilities and resources and wider changes in national policy in order to support such ambitions. For example, encouraging car-free visitors would be far easier if a national road pricing scheme was introduced and/or local bus services were organised in a way which ensured greater support for rural services and reducing emissions from new development will only be possible if national planning policy provides much stronger support for requiring emissions reductions.

The NPAs should be making a stronger case for the necessary changes to national policy, in order to support strong climate action, for example, calling for strengthened Management Plans and amended purposes. It is disappointing that collective action on this was not included in the NPE Delivery Plans.

Similarly is it enough for the NPAs in Wales to follow the lead set by Welsh Government or should they be seeking to go above and beyond what is expected of the rest of the public sector if they truly want to demonstrate the potential that National Parks offer for both nature and the climate?

The NPE Delivery Plan commits the NPAs to working collectively towards net zero and promoting collaboration with AONBs and there is definitely a need for a more joined-up approach. While there is already significant activity across the different NPAs, there is very little evidence of any attempt to ensure that initiatives that have been successful in one National Park are replicated elsewhere. Even allowing for differences between the Parks and the policy differences between the UK nations, there is much that could be gained from all the NPAs in England and Wales (and Scotland) working more closely together both to identify the best measures to adopt and in order to secure the changes needed from central governments.

Recommendation: The NPAs should be pushing for the national changes needed to ensure they can take a leading role on tackling climate change. This should include seeking more powers, responsibilities and resources in areas such as transport which would allow them to have a greater impact at local level.

6.2 Are NPAs doing enough to publicise their net zero ambitions?

Some of those from other organisations that we spoke to at the start of this research expressed the view that NPAs are not doing enough to publicise their climate-related work. A year on that still seems to be the case. Although some of the NPAs provide very clear information, in other cases, it is very hard to find any information on their websites about the targets they have set and how they plan to achieve those.

For example, Brecon Beacons NPA adopted a position statement on climate change and nature recovery in December 2019[80] which endorses the Welsh Government's adoption of a climate emergency and sets out the actions the NPA will take to respond to this (although interestingly does not make any reference to any targets). However, there is no reference to this statement on the climate change pages of the NPA's website which link to much older and possibly out-of-date documents. Similarly, the information about climate change on the Yorkshire Dales NPA's website[81] refers to a piece of work that was commissioned in 2010 but makes no reference to the Carbon Reduction Plan they adopted in March 2020 and which was promoted on the news section of their website[82].

This lack of information risks giving the impression that NPAs are actually taking far less action in this area than they are. It also makes it hard for anyone unfamiliar with an NPA's work to understand what it is actually doing in this area. If targets are to be effective they must be meaningful and well-publicised.

Recommendation: All NPAs should establish and publish clear targets for emissions reductions for both the authority itself and the National Park as a whole. To support this and ensure they really are making progress towards net zero, they should also establish and publish clear baselines and set out specific targets for carbon reduction in different sectors including agriculture and land management, transport, housing etc.

7. SUMMARY OF RECOMMENDATIONS

Significant changes are needed at both national and local level if National Parks are to take a leading role in tackling the climate emergency. The scale of change required will have far-reaching implications and if it is to be delivered effectively, it is important that there is an opportunity for all those affected to agree the best course of action collectively. We are calling for:

- A "Nature, people and climate" commission or similar mechanism to be established in order to bring together representatives from all those with an interest in National Parks – landowners, residents, visitors, non-visitors and experts - to consider the changes needed and how best to achieve them. We would like to see this piloted in at least two of the National Parks as soon as possible with a view to rolling it out to all of them.

As the National Parks vary enormously in size and characteristics, it is likely that the specific measures identified through these commissions will also vary significantly. However, what is already clear is that the NPAs urgently need additional powers, responsibilities and resources if they are to be able to take action in the way that is most appropriate for their local circumstances.

In support of this, the Welsh and Westminster Governments should:

- Provide consistent multi-year funding to NPAs.
- Strengthen National Park Management Plans; amend the statutory purposes to place a much stronger emphasis on tackling climate change; and introduce stronger duties on other bodies to support the delivery of the Management Plans.
- Provide the right supporting framework to allow NPAs to take effective climate action including ensuring that policy decisions in relevant areas such as transport and planning are consistent with a move towards net zero.
- Review and potentially remove permitted development rights in designated landscapes in order to ensure that the use of such rights does not undermine NPA climate action.
- Implement a pilot to test the use of additional powers and resources on transport by NPAs in at least two National Parks to assess the impacts in areas with differing levels of public transport, visitor numbers, etc.
- Ensure that the need to increase the number of NPA members with climate expertise is taken into account when recruiting new members.
- Ensure that all relevant government departments make data available in a format which allows for consistent reporting of progress towards climate change targets in National Parks.

The NPAs must also push for these national changes themselves.

There are also measures the NPAs could implement immediately. To ensure that tackling the climate emergency is fully integrated across the full range of their activities, NPAs should:

- Establish and publish clear targets for emissions reductions for both the authority itself and the National Park as a whole. To support this and ensure they really are making progress towards net zero, they should also establish and publish clear baselines and set out specific targets for carbon reduction in different sectors including agriculture and land management, transport, housing etc;
- Account for carbon emissions separately from carbon sequestration (storage and capture).
- Adopt a hierarchy approach to avoid over-reliance on carbon offsets and ensure that offsetting is only being used as a last resort for their own emissions. This should be accompanied by clear standards to ensure that any offsets are high quality and long-lasting and genuinely delivering new carbon stores. There is also a need for research to provide a better understanding of the carbon reduction potential of nature-based solutions.
- Introduce measures which increase the capacity of members and other local stakeholders to make effective decisions on climate-related activity, such as the delivery of appropriate training and the inclusion of climate implications in committee reports.

APPENDIX A: DEFINITIONS

Organisations use a wide range of different terms to refer to their ambitions and targets with regard to reducing carbon emissions. In this report we have generally used the term net zero as this is the term most commonly used for target setting by public sector organisations in the UK. We have used the term carbon neutral when that is what the organisation we refer to has used for its targets.

Net zero refers to a state in which emissions released into the atmosphere are balanced by removal of emissions out of the atmosphere.

Becoming carbon neutral means balancing greenhouse gas by 'offsetting' – or removing from the atmosphere – an equivalent amount of carbon for the amount produced.

There is an explanation of the difference between 'carbon neutral' and 'net zero' here. While the two are sometimes used interchangeably they do mean different things which can make it difficult to make direct comparisons between different targets. The Science Based Targets Initiative is encouraging organisations to set targets in line with the latest climate science to ensure that they are absolutely clear about what they are intended to achieve.

We have not been able to consider this issue in any detail in this report but it is clear that is an area that would benefit from further research in terms of understanding the extent to which the targets the NPAs are using are the most appropriate ones.

ACKNOWLEDGEMENTS

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