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NATURAL ENGLAND

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# Monitoring and Evaluation of Nature Improvement Areas: Final Report (2012-15)

## Final Report

## November 2015


**Collingwood Environmental Planning Limited**

**in partnership with GeoData Institute**

Collingwood Environmental Planning

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# Foreword

The Nature Improvement Areas were an inspiring idea – combining community action, investment in some of our most precious environmental areas, and opportunities for scientific research. But they were a new idea, and we felt it was very important to get a rigorous independent assessment of how they had performed as soon as possible. Such 'evaluation' is never easy – many aspects of high-quality, community-led projects can be tough to measure and quantify. And much of the magic of an individual scheme – such as the Morecambe Bay Woodfuel project – is difficult to capture in a government paper.

But in this case, the monitoring and evaluation results have been overwhelmingly positive. This report shows that the Nature Improvement Areas have not only been successful – they have performed much better than we hoped. On the community side, they brought an astonishing 47,000 days of volunteer time to the natural world. From the point of view of ecology and carbon capture, they have delivered fantastic results such as the Culm grassland restoration. None of this has been easy – we owe a huge debt of gratitude to the hundreds of people who put the hard work, thought, patience, and energy into bringing these projects to fruition. These were testing undertakings. But again and again, the report demonstrates that the NIAs helped partners to work much more closely together, inspired communities, and left behind a real justifiable sense of pride.

My personal conclusion is that NIAs have now been demonstrated to be a great model for future work in the British environment. Our environment is irreducibly local. Climate, geology, soil types and habitat vary dramatically across our island. But it is also as Professor Lawton emphasises – interconnected. We must also approach it holistically – linking whole river catchments for example, from the source to the sea, making sure that the thousands of different interventions in land and water use, reinforce each other and create a better place for life. And to sustain such environmental work in the future, we need to ensure that the British public is connected to it at every level – well-informed about the natural world, and engaging with it vigorously and regularly.

The Nature Improvement Areas combine all these things – they are intensely local, they emphasise partnership, they are sensitive to approaches stretching across whole catchments and eco-systems, and they draw in thousands of volunteers and community groups. And the results of all this are clear in this assessment, Such an approach does not only make sense of our society – it also delivers remarkable environmental results.

This report should now give the whole of the British environmental movement – from our own Department, and agencies, to charities, voluntary bodies, businesses, and councils an inspiring model. We must ensure that the philosophy of the Nature Improvement Areas, and the lessons of these projects are shared as widely as possible, so they can be integrated into the thousands of initiatives launched every year across the country. The work of the Nature Improvement Areas should now be central to how we think about our work in the British environment over the next twenty-five years.

And we owe a huge thanks to the many, many people who made these remarkable projects possible.

Rory Stewart MP, Parliamentary Under Secretary of State for Environment and Rural Affairs

# Executive Summary

## Summary headlines from the monitoring and evaluation

### Introduction

The establishment of the Nature Improvement Areas (NIAs) was announced in the Natural Environment White Paper[1] and contributed to England's strategy for wildlife and ecosystem services – *Biodiversity 2020*[2]. The NIAs were designed to enable partnerships (including local authorities, local communities, land managers, the private sector and conservation organisations) to develop and implement a shared vision for their natural environment and to demonstrate how a 'step change'[3] in nature conservation might be delivered at a landscape-scale, enhancing ecosystem services including social and economic objectives.

Following a national competition 12 selected NIAs were awarded a share of £7.5 million government funding for a three year period from April 2012 to March 2015.

The NIA Monitoring and Evaluation Phase 2 project[4] was commissioned by the Department of the Environment, Food and Rural Affairs (Defra), in collaboration with Natural England, in February 2013. The project gathered evidence and assessed the progress and achievements of the NIAs over the three year grant funded period, as well as learning from the NIA initiative to inform future integrated natural environment initiatives. This summary overview presents the headline results of the monitoring and evaluation project.

### What did the NIAs achieve and what difference did they make?

#### *More, bigger and less fragmented places for wildlife*

Substantial contributions to *Biodiversity 2020* outcomes were achieved. The initiative accelerated and broadened the scope of biodiversity activities in NIAs, although some activities, especially those funded through environmental stewardship grants, might have happened without the NIA initiative but over a longer timescale. NIA partnerships maintained or improved 13,664ha of existing priority habitat (equivalent to about a quarter of the size of the New Forest National Park); and have restored or created 4,625ha of new priority habitat. The NIAs also restored, created or managed 225km of linear and boundary habitats, such as rivers and hedgerows. Activities to restore or create habitats have delivered multiple benefits, such as: improved habitat connectivity; development of recreational corridors; creation of open spaces; and the enhancement of ecosystem services.

#### *Enhancing the benefits that nature provides for people*

The NIA partnerships improved local ecosystem services and raised awareness of ecosystem services nationally through their activities and research. They delivered cultural ecosystem services by: working to improve landscape character; creating easier access to and the quality of greenspace; and helping people to engage with and understand the natural environment. They also enhanced supporting ecosystem services, for example by improving habitats for pollinators, and regulating ecosystem services, for example by through flood protection and carbon storage and sequestration.

The NIA partnerships worked to improve people's experiences of the natural environment and use nature for learning, art and cultural events. Examples include: a project in Birmingham and Black Country which brought together local residents and community groups in a deprived urban-fringe estate to improve their local open space providing opportunities to learn new skills, meet people and be physically active[5]; and in Greater Thames Marshes an environmental artwork was developed

[1] *Natural choice – securing the value of nature* (HM Government, 2011).
[2] Defra (2012) Biodiversity 2020: A strategy for England's wildlife and ecosystem services.
[3] Sir John Lawton's review imaged a step change being a shift from 'trying to hang-on to what we have' to an approach of 'large-scale habitat restoration and recreation, under-pinned by the re-establishment of ecological processes and ecosystem services'. Professor Lawton's vision was long-term: to 2050, and defined as a 'direction of travel, not an end point'.
[4] Collingwood Environmental Planning (CEP), with its partners GeoData Institute and Cascade Consulting, were commissioned to undertake the Monitoring and evaluation of Nature Improvement Areas: Phase 2 research project (WC1061). http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=2&ProjectID=18555.
[5] See: http://www.bbcwildlife.org.uk/nia/projects/castle-vale-meadows

to improve understanding of biodiversity within the unique landscape in a country park on the Thames estuary[6]. In three of the NIAs, 26,500 people participated in educational visits[7].

Volunteers contributed over 47,000 days of their time to activities in all the NIAs over the three grant funded years, and volunteering increased in each of the three years, with the amount of volunteering in the third year twice as much as in the first. In total, 87% of volunteering time was on activities considered likely to lead to health and wellbeing benefits for the people involved (e.g. working in groups or doing physical work).

To illustrate the economic value of the benefits to ecosystem services, a study in one NIA (Northern Devon) estimated the value of conserving 1,500ha of Culm grassland at more than £6 million in value of water resource management and carbon storage generated over the three grant funded years[8].

The NIAs also generated local economic benefits through employment creation, showcasing and supporting small-scale local businesses, and enhancing the attractiveness of their areas for visitors.

### *Working with local communities, land managers and businesses*

More effective partnership working was a key benefit of the NIA initiative. 10 of the 12 partnerships were able to get off to a quick start because they evolved from existing partnerships. The government grant enabled staff to be employed in NIAs to coordinate partnerships and encourage joined-up working. NIA partnerships were broader and better coordinated than would have been possible otherwise. They included organisations that are not traditionally involved in conservation work, such as local businesses.

Land managers were involved in, and undertook activities across all the NIAs, particularly related to sustainable agriculture. The NIA partnerships also engaged with their local communities, encouraging community involvement in decision-making, although the short timescales to prepare bids and commence NIA project delivery meant that much of the wider community and partner 'buy-in' had to be developed during project implementation.

### *Leverage*

The NIA partnerships mobilised resources with an equivalent value of £26.2 million (including the financial value of volunteer time and services in-kind) in addition to the initial government grant funding. Of this total, £15.3 million was from non-public sources (e.g. private sector and non-governmental organisations).

## What have we learnt from the NIAs?

Key lessons from the evaluation of the NIAs include:

- shared visions and objectives for the NIA partnerships improved communication between organisations, encouraged joined-up working and more integrated implementation;
- partnership-led, landscape scale land management contributed to successful implementation. However, sufficient resources need to be dedicated to local coordination and management if partnerships are to function well;
- the flexibility inherent in the design of the initiative was an important success factor;
- partnerships bringing conservation organisations together with local businesses, land managers, research institutions and local authorities proved effective in delivering land management in the integrated way envisaged by the NIA initiative;
- visible government support and leadership and a clear policy message provided impetus for local project delivery and helped local projects in sourcing additional resources;
- the scale of funding available to NIAs was critical to their success; the initial government grant, for example, enabled partnerships to employ staff, leverage match-funding and initiate

[6] See: http://www.placeservices.co.uk/projects/the-reveal/

[7] An educational visit is defined as any organised visit to an NIA site or centre which has an explicit educational objective.

[8] Cowap *et al.* (2015) *The economic value of ecosystem services provided by culm grasslands*. Available from: http://www.devonwildlifetrust.org/i/The_economic_value_of_Culm_grassland,_April_15.pdf

demonstration projects that have encouraged others to get involved; and,

- longer term activity (beyond the three years of grant funding in NIAs) will be required to deliver sustainable impact, with associated monitoring and evaluation to understand if lasting changes have been realised.

### Conclusions

The NIA partnerships achieved a great deal in a relatively short period of time. They developed partnerships, established shared visions and objectives for the natural environment in their areas, and implemented ambitious work programmes. Although longer term monitoring and evaluation would be required to understand if all the changes are sustained, in three years the NIAs delivered a range of benefits, including: real change in the quality and quantity of priority habitats; enhanced ecosystem services; joint working with a wide range of partners and the involvement of many people as volunteers or visitors, leading to benefits for local people and communities.

The NIAs represented an initial contribution to the 'step-change' that Professor Sir John Lawton envisaged: a new, approach to ecological restoration which rebuilds nature and creates a more resilient natural environment for the benefit of wildlife and ourselves, with a vision to 2050. A key challenge for the NIAs was how to sustain delivery: four NIA partnerships have already secured funding from a variety of sources; and groups formed from four other NIAs were awarded funding under the first round of the Countryside Stewardship facilitation fund[9] in July 2015.

It is too soon, however, to know the extent to which NIA partnerships will be able to continue to deliver all their objectives beyond the three grant funded years. The true value and impact of the 12 NIAs will only be realised in the longer-term, as achieving ecological restoration will require many years of effort, if they inspire and help provide a business case to enable others to follow suit and build on the experience and knowledge developed over the last three years. More generally, the lessons learnt are relevant to future development of policy on integrated management of the natural environment to deliver multiple policy objectives.

## Introduction to the project and the final report

The Nature Improvement Areas (NIA) Monitoring and Evaluation Phase 2 project[10] was commissioned by the Department of the Environment, Food and Rural Affairs (Defra), in collaboration with Natural England, in February 2013. The project involved gathering evidence and assessing the individual and aggregated progress and achievements of the NIA partnerships over their three year grant funded period (April 2012 to March 2015)[11]. The project also aimed to maximise learning from the NIAs and build a practical evidence base to inform future integrated land-use and management initiatives. The final report from the project presents the findings of the monitoring and evaluation at the end of the three years.

## Policy background and introduction to the NIAs

The establishment of NIAs was announced in the Natural Environment White Paper[12]. The NIAs were introduced to create joined-up and resilient ecological networks at a landscape scale and to deliver these in an integrated way, enhancing ecosystem services including social and economic objectives. They were intended to be large, discrete areas where a local partnership had a shared vision for their natural environment which would play a part in helping to demonstrate how a 'step

[9] https://www.gov.uk/government/publications/guide-to-countryside-stewardship-facilitation-fund

[10] Collingwood Environmental Planning (CEP), with its partners GeoData Institute and Cascade Consulting, were commissioned to undertake the Monitoring and evaluation of Nature Improvement Areas: Phase 2 research project (WC1061). http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=2&ProjectID=18555.

[11] Note that this report, and the monitoring and evaluation project overall, covers the 12 initial NIAs that received government grant funding. It does not consider any of the locally determined NIAs subsequently established. Therefore throughout this report reference to "the NIAs" refers to the initial 12 NIAs that received grant funding only.

[12] *Natural choice – securing the value of nature* (HM Government, 2011).

change'[13] in nature conservation might be delivered. The programme took forward the recommendations of Professor Sir John Lawton's report on Making Space for Nature (Lawton *et al*., 2010)[14] and links to the shift of emphasis from site-based conservation towards a more integrated landscape scale approach advocated in the Biodiversity Strategy for England (Defra, 2011) as a contribution towards commitments to the Convention on Biological Diversity[15].

The 12 selected NIA partnerships started work in April 2012, following a national competition which attracted 76 bids. The NIAs were partnerships of local authorities, local communities, land managers, the private sector and conservation organisations. The government NIA Grant Scheme provided funding to the partnerships for three years, and was intended to enable the 12 selected NIAs to help provide inspiration locally and build a practical evidence base.

The NIAs aimed to trial and test innovative, integrated and coordinated approaches to provide better places for wildlife, to improve the natural environment for people, and to unite local communities, land managers and businesses through a shared vision. The variety of landscapes, locally defined objectives, and partnerships seen across the NIAs reflected this purpose.

A systematic yet flexible approach to monitoring and evaluation was adopted to measure the NIAs' progress, and to assess what was working well or less well. The NIA partnerships applied several new concepts where practical tools and assessment methods are still developing, relating to restoration of habitat connectivity and ecosystem services for example.

## The monitoring and evaluation process

The NIA partnerships undertook monitoring and evaluation following a framework, which addressed four themes: biodiversity; ecosystem services; social and economic benefits and contributions to wellbeing; and partnership working[16]. The framework included 'core' indicators that were adopted by all the NIA partnerships, and 'optional' indicators chosen according to local priorities. The NIA partnerships used an online reporting tool to record their monitoring data at the end of each year. The NIA partnerships also submitted quarterly progress reports to Natural England, including financial monitoring and progress against their agreed objectives.

The overall approach to the evaluation used a logic model following HM Treasury guidance in the Magenta Book[17]. A logic model is used to help understand the complexity of a policy intervention and the relationship between an intervention's inputs, activities, outputs, outcomes, and impacts[18]. The approach adopted was a combination of process and impact evaluation: focusing on how the NIA partnerships were delivering their objectives, as well as on what and how much they were delivering. Further research was conducted to help understand the difference the NIA partnerships had made over and above what may have happened anyway.

The NIA monitoring and evaluation project also supported delivery of NEWP commitment 11 to "*capture the learning from NIAs, and review whether further action is needed in planning policy, regulation or capacity building, to support their development*".

[13] Sir John Lawton's review imaged a step change being a shift from 'trying to hang-on to what we have' to an approach of 'large-scale habitat restoration and recreation, under-pinned by the re-establishment of ecological processes and ecosystem services'. Professor Lawton's vision was long-term: to 2050, and defined as a 'direction of travel, not an end point'.

[14] Available at: http://webarchive.nationalarchives.gov.uk/20130402151656/http://archive.defra.gov.uk/environment/biodiversity/documents/201009space-for-nature.pdf

[15] www.cbd.int

[16] Note that the framework was initial developed as part of a separate contract: Developing a framework for design, monitoring and evaluating pilot Nature Improvement Areas: Phase 1 Scoping Study (WC1029).

[17] HM Government (2011) *The Magenta Book: Guidance for evaluation*. London, HM Treasury.

[18] ***Inputs*** relate to the resources (e.g. financial, people) invested in the NIAs; ***Activities*** relate to the actions undertaken by the NIAs to meet their objectives (e.g. planning and coordination of habitat creation interventions); ***Outputs*** relate to the immediate results achieved (e.g. completion of a specific activity on an area of land); ***Outcomes*** relate to the short and medium term results of the activities and outputs achieved (e.g. creation of conditions to support a priority habitat type); and ***Impacts*** relate to the longer term results achieved (e.g. establishment of an area of new priority habitat that is stable / sustainable).

# Evaluation of the inputs to the NIAs and the processes they used

## NIA partnership financial and human resources

In 2012 the 12 NIA partnerships were awarded a share of £7.5 million government funding for a three year period from April 2012 to March 2015. The grants to the NIAs were administered by Natural England. The reported total value of resources secured by the NIAs in addition to the government grant was more than £26 million. This included additional resources generated from public and non-public sources, and the financial value of services in-kind and of time given by volunteers[19].

**£7.5million**
Initial government grant

**£26.3million**
Value of additional resources secured

**22%**
Initial grant as % of total NIA resources

**For every £1.00 of initial government grant, £3.49 financial value of additional resources generated** of which £2.03 was from non-public sources

Additional resources from non-public sources had a financial value equivalent to more than £15 million, including support from NGOs, academic institutions and the private sector as well as the value of volunteer time. Almost £11 million came from public sources (34% was national[20] and 8% local[21]). The ratio of additional resources to grant was 3.49:1, meaning that, including the financial value of volunteering and services in-kind, £3.49 of resource was secured, of which £2.03 was from non-public sources, for every £1.00 of the initial NIA government grant. Based on NIA financial reporting to Natural England, 60% of the total resources were used for project implementation (i.e. land management activity / improvement works including capital items), with an equivalent value of £20.3 million.

> "***Having the initial money was really useful in galvanising others to engage and identify additional resources***"
> [NIA partnership chair]

Most NIAs evolved from existing partnerships within their areas, though two of the partnerships were established specifically to bid for the NIA government grant (Marlborough Downs and South Downs). Partnership size varied from less than five formal partners (e.g. Marlborough Downs) to more than 50 (e.g. Birmingham and Black Country).

The government grant, and the additional resources secured, enabled the partnerships to employ dedicated staff (e.g. NIA project managers and farm-liaison officers) and a range of contractors. Between 2012 and 2015 the NIA partnerships also mobilised more than 47,000 days of volunteering. This equates to approximately six full-time equivalents (FTEs)[22] per year per NIA on average. Approximately 75% of this volunteering time was spent on implementation. There was almost twice as much volunteering on NIA activities in the third year compared to the first year of the grant funded period.

## Government agency management of the initiative and support to NIA partnerships

Natural England was responsible for the delivery of the NIA programme. They provided overall programme management, oversaw the NIAs' implementation, and supported their monitoring and evaluation work. The NIA initiative was overseen by a Steering Group (established to have representation from Defra, Natural England, Forestry Commission, Environment Agency and

[19] Financial value of volunteer time calculated using standardised rates of: General unskilled labour £6.25 per hour, £50 per day; Specialist, skilled trained labour £18.75 per hour, £150 per day; Specialist services £31.25 per hour, £250 per day; Professional services £50 per hour, £350 per day

[20] Any government department or agency e.g. Defra, Natural England, Forestry Commission, Environment Agency including grant schemes Higher Level Stewardship (HLS) etc). May also include others e.g. Kew Gardens. Also includes other Rural Development Programme for England (RDPE) e.g. LEADER; Biosphere.

[21] Local authorities and local authority funded organisations. Also includes National Park Authorities, AONBs, Internal Drainage Boards.

[22] For the monitoring and evaluation of the NIAs one full time equivalent (FTE) was equal to 230 working days of 7 hours

Department for Communities and Local Government), which met regularly throughout the three grant funded years.

At the local level, Natural England provided support to the NIAs through a network of dedicated local officers. Natural England estimated they provided an average of almost 7 FTEs per year including national and local support. The Environment Agency and Forestry Commission also provided support to NIA partnerships. The Environment Agency estimated that the total support they provided was approximately 1.7 FTEs per year, with the majority of this spent on local support to NIA project implementation. Natural England and the Environment Agency both noted that their estimates of support are likely to be underestimates[23].

Defra funded external contracts to support the monitoring and evaluation of the NIAs in two phases overseen by a NIA monitoring and evaluation project Steering Group. This Group met formally 15 times during the monitoring and evaluation Phase 2 project.

### Partnership working in the NIAs

The NIAs commented (through interviews with partnership chairs) that being based on existing partnerships, as 10 out of 12 were, was beneficial due to the time and effort required to establish new partnerships. Each NIA's shared vision and objectives supported partnership working through better alignment of different organisations' work plans and by providing common priorities to work towards. Some NIAs expressed the view that having time at the start of the initiative to collectively develop visions and objectives may have strengthened partnership working in the longer-term. By bringing together new partners with diverse interests, NIA partnerships were also able to develop relationships between partners who may not have worked together before, and helped establish a shared understanding of partners' objectives, drivers and areas of mutual benefit.

Establishing clear structures for coordination, delegation and communication of tasks and roles across governance and NIA project delivery groups was also seen as important. Key benefits of partnership working expressed by NIA partnership chairs through interviews included: agreed priorities across organisations that may not have coordinated activities before; breaking down barriers between organisations; sharing of data and knowledge; and involving local communities.

## Evaluation of outcomes and impacts from NIA activities

### Becoming much better places for wildlife

- The NIA partnerships have delivered activities to maintain or improve 13,664ha of existing priority habitat[24]; and restore or create 4,625ha of new priority habitat. They have also delivered actions on 225km of linear and boundary habitats, such as rivers and hedgerows, and 78 individual site based habitats, such as ponds. These activities represent a contribution to the delivery of England Biodiversity Strategy outcome 1A[25].
- The activities on 13,664ha of existing priority habitat represents 14.6% of the extent of priority habitat in the NIAs (and 3.5% of the total area of the NIAs). 13,664ha is equivalent to about a quarter of the size of the New Forest National Park. The 4,625ha of new habitat created or restored represents 2.3% of

**14.6%**
Proportion of existing priority habitat in NIAs subject to new management action

**13,664ha**
Area of existing priority habitat in NIAs managed to maintain or improve its condition

**4,625ha**
Area managed to restore or create new priority habitat in NIAs

[23] For example, Natural England time only includes that coded to the NIA programme, and does not include other work programmes in NIAs even if these were contributing to NIA objectives e.g. Environmental Stewardship administration

[24] Priority habitats were identified as being the most threatened and requiring conservation action under the UK Biodiversity Action Plan (UK BAP). In 2013, Natural England published a new priority habitats' inventory for England covering 24 priority habitats.

[25] Defra (2012) *Biodiversity 2020: A strategy for England's wildlife and ecosystem services*. Outcome 1A: Better wildlife habitats with 90% of priority habitats in favourable or recovering condition and at least 50% of SSSIs in favourable condition, while maintaining at least 95% in favourable or recovering condition.

the England Biodiversity Strategy outcome (1B)[26] to increase priority habitats by at least 200,000ha[27]

- Activities were also undertaken to enhance habitat connectivity (which also represents a contribution to the England Biodiversity Strategy outcome 1B). Research related to enhancing and monitoring connectivity was an experimental aspect of the NIA initiative. In addition, NIAs have reported on various interventions such as changes in the total extent of specific types of priority habitat or mapping how NIA activities have created patchworks of habitat / stepping stones for species. However, due to the locally specific nature of habitat connectivity, a clear measure of the combined NIAs' contribution to enhanced connectivity was not possible to establish.
- The three-year period was generally too short to measure the longer term biodiversity impacts of the activities carried out. For example, even where appropriate habitat management may have been put in place, it may take many years before the full effect of that action (i.e. impact) becomes apparent, such as improved habitat condition, or improved status of key species.

### Enhancing benefits for people as well as wildlife

- Some NIAs delivered actions specifically designed to enhance ecosystem services, such as flood protection (e.g. through watercourse maintenance) and carbon sequestration. Reflecting the integrated approach, all NIA activities related to enhancing or creating habitats or encouraging local people to engage with the natural environment, will have also enhanced ecosystem services.
- NIAs undertook specific studies which suggest that ecosystem service outcomes have, and will continue to be, realised. These related to the value of carbon sequestration and habitat improvements, for example.

**Examples of NIA studies on the value of ecosystem services**

A study completed in the Northern Devon NIA estimated the value of Culm grassland restoration and recreation work similar to that being implemented under the NIA project and concluded it:

> '*… provides an excellent return on investment. Over the next ten years, Devon Wildlife Trust aims to restore at least 5,000ha more Culm, which will more than double its water and carbon value to in excess of £20.5 million. The cost of this investment in Culm restoration and recreation is in the region of £2 million, giving more than a ten-fold return on investment*'. (Cowap et al, 2015, p.4)

Over the three grant funded years, the Northern Devon NIA has implemented actions on more than 1,500ha of grassland, suggesting a potential of more than £6 million in water resource management and carbon storage value over the three grant funded years.

The capitalised value of ecosystem services (the value at 2014 prices of ecosystem services over a time period of 100 years) provided by habitats created by Birmingham and Black Country NIA is approximately £2.19 million. A specific cost for the habitat creation activities associated with this valuation was not considered in the study, however this value compares to the total NIA government grant paid to Birmingham and Black Country of approximately £600,000.

- All the NIA partnerships engaged with their local communities through activities to increase participation in the natural environment (leading to more than 47,000 days of volunteering over the three years – as a comparison, the New Forest reported that in 2014/15 over 900 volunteering days were recorded from people taking part in their work that year. Whilst the NIAs covered approximately 9 times the area of the New Forest, the average number of NIA volunteering days per year was 17.5 times the number in the New Forest); and to encourage schools and other local groups to engage with and learn in and from the natural environment. In

[26] Ibid. Outcome 1B: More, bigger and less fragmented areas for wildlife, with no net loss of priority habitat and an increase in the overall extent of priority habitats by at least 200,000ha.

[27] It is not possible to compare this to habitat creation and restoration in England as no assessment of change in priority habitat extent was made in the most recent (2014) England Biodiversity Strategy indicators report due to the adoption of a new priority habitat inventory in 2013.

the three NIAs that reported on it, a total of 26,496 people had participated in educational visits[28] by the end of year 3 – as a comparison, in the New Forest around 10,000 students a year receive free learning sessions (New Forest National Park Authority, 2015)[29].

**47,159 days**
Volunteer time over the 3 years in all NIAs
(the equivalent of 68 people working full time each year)

**26,496 people**
Number participating in educational visits in 3 NIAs

- The NIA partnerships carried out actions to enhance access to nature by creating and improving facilities and information at key sites. The NIA partnerships also made links between the natural environment and cultural and social values, such as through theatrical performances, art installations and events including photography competitions.
- The NIAs also generated local economic benefits through employment creation, showcasing and supporting small-scale local businesses, and enhancing the attractiveness of their areas for visitors.
- Case studies developed by the NIA partnerships and evidence from other research suggest that social and economic wellbeing outcomes have occurred in all NIAs. A summary of the case studies developed by eight of the NIAs to demonstrate their contribution to these benefits is presented in Table 1. Some examples of the activities and benefits involved from three case studies are:
  - The Castle Vale Meadows project[30] (Birmingham and Black Country) was used as a catalyst to bring local residents and community groups together to make improvements to their local open space. This was in a deprived urban-fringe estate that suffered from a poor quality physical environment with little access to natural greenspace. The project encouraged engagement with the natural environment, physical activity, and enhanced participant skills.
  - In Greater Thames Marshes an environmental artwork was developed to help improve visitors' understanding of biodiversity within the unique landscape in a country park on the Thames estuary[31].
  - The Morecambe Bay Woodfuel Project helped secure £444,000 in Woodland Improvement Grants and gain work for 52 local woodland management contractors, many of whom are small businesses. The project as a whole was considered by the NIA to have helped encourage and promote the development of the local woodfuel economy, a process which is expected to have economic benefit in the future.

**Table 1: Summary of the NIA social and economic case studies**

| NIA | Case study name | Types of benefit presented within the case study | | | | |
|---|---|---|---|---|---|---|
| | | Health | Social development and connections | Economic | Education | Spiritual, cultural, aesthetic |
| **Birmingham and Black Country** | Castle Vale Meadow | ✓✓ | ✓✓ | ✓ | ✓ | ✓ |
| **Marlborough Downs** | Driving for the Disabled track works | ✓✓ | ✓ | ✓ | | |
| **Meres and Mosses** | Down to Earth - Whixall | | ✓✓ | | | ✓✓ |
| **Morecambe Bay** | Morecambe Bay Woodfuel Project | | ✓ | ✓✓ | | ✓ |
| **Nene Valley** | Community Panel Public Dialogue Project | | ✓✓ | | ✓ | ✓ |

[28] An educational visit is defined as any organised visit to an NIA site or centre (e.g. visitor centre) which has an explicit educational objective.
[29] http://www.newforestnpa.gov.uk/info/20016/our_work/54/annual_review
[30] See: http://www.bbcwildlife.org.uk/nia/projects/castle-vale-meadows
[31] See: http://www.placeservices.co.uk/projects/the-reveal/

| NIA | Case study name | Types of benefit presented within the case study | | | | |
|---|---|---|---|---|---|---|
| **Northern Devon** | Producing a Teachers' Pack to promote understanding of ecosystem services | | | | ✓✓ | |
| **The Greater Thames Marshes** | Public Art Project at Hadleigh Farm | ✓✓ | ✓ | | | ✓✓ |
| **Wild Purbeck** | Getting Wild about Purbeck in Your School | ✓ | | | ✓✓ | ✓ |

**Key:** ✓✓ = benefits delivered as explicit objective of the case study and ✓ = benefits delivered indirectly

## Uniting local communities, land managers and businesses

- The NIA partnerships generally included a broader range of organisations than are traditionally involved in nature conservation, including local businesses. In addition, the shared visions for the natural environment and objectives developed at the outset helped improve communication between organisations and encouraged coordinated working. Local communities also played a role in all the NIAs, in particular through volunteering.
- Farming groups (e.g. National Farmers Union and the Farming and Wildlife Advisory Group South West[32]) were formal partners in four NIAs, and one NIA was farmer-led (Marlborough Downs). This represented a different delivery model to other NIAs; for example a specific NIA delivery company was established and an agri-environment consultancy team was contracted to provide project management[33]. This approach was felt by the Marlborough Downs NIA partnership chair to have been very successful. Land managers have been involved in undertaken many activities across all NIAs, particularly activities related to sustainable agriculture. Land under environmental stewardship increased by 10.8% across the NIAs over the three grant funded years (2012 – 2015), compared to 7.2% across the whole of England over the same period.

Land under Environmental Stewardship increased by **10.8%** across the NIAs, compared to 7.2% across the whole of England

***"aligning NIA activities (in some NIAs) with Water Framework Directive outcomes helped gain extra financial support and facilitated joint working with the environment"***
[national stakeholder]

- There is uncertainty about the extent to which local communities, land managers and businesses are 'united' in taking a collective, integrated approach at the landscape scale, and it is too early to say whether the relationships that have been formed under the NIA initiative are likely to continue after the funding period.

## Becoming places of innovation and inspiration

- NIA partnerships sought to inspire people by: engaging people with the natural environment as volunteers and through public events; using nature for learning (e.g. through educational visits and training for volunteers); and connecting people with the local landscape through cultural and artistic interpretation (e.g. art, theatre, music and photography).
- The NIA partnerships completed research and tested approaches, for example related to the delivery and measurement of habitat connectivity and integrated land management (e.g. delivering ecosystem services, such as carbon sequestration or water management). Much of the research was undertaken in partnership with local universities and research institutes. This improved understanding in NIAs of how connectivity may be delivered and measured. For example, a paper was published on landscape scale conservation in Meres and Mosses NIA[34].
- With support from Natural England, the NIA partnerships participated in five best practice events and two annual forums which have provided a platform for presenting research and innovative practice to other NIA partnerships. These encouraged sharing of knowledge and

[32] See: http://www.fwagsw.org.uk/
[33] For more information see: http://www.mdnep.org.uk/about.html
[34] Jones, M., *Landscape-Scale Conservation in the Meres and Mosses*. British Wildlife, June 2015. Vol 26 No 5, p.337-344

experience between NIA partnerships, and supported learning. The outputs from the best practice events have been made publically available[35].

- The success of the NIA partnerships in working with land managers to encourage the uptake and coordination of environmental stewardship options across multiple agricultural holdings, with a focus on landscape scale biodiversity objectives, was a factor in the policy decision to introduce the Countryside Stewardship facilitation fund[36].

## What difference have the NIA partnerships made?

The monitoring and evaluation project included research to understand the difference the NIA partnerships have made, over and above what would have happened anyway (the counterfactual). A separate counterfactual report[37] provides more detail on this work. Its findings are integrated throughout the main report.

The research provided evidence on the impact of the NIAs whilst also testing different approaches to measuring the counterfactual in complex environmental evaluations, to generate learning for future evaluations of this type. Three approaches were used. Approach 1 developed a 'counterfactual scenario' using semi-structured telephone interviews with seven national stakeholders and all 12 NIA partnership chairs, as well as an online survey of the NIA partners which was completed by 122 people[38] (see the summarises of the results from the interviews and survey in Table 2). Approach 2 was a trajectory analysis that analysed environmental stewardship data to compare trends before and during the NIA initiative and Approach 3, a comparative analysis that attempted to analyse similar data to compare NIAs with areas outside the NIAs.

NIA partners' views on the impact on delivering key objectives of establishing the NIA Initiative (proportion considering it had 'much improved or 'improved'):

**88%**
**habitat quality**
(25% 'much improved' and 63% 'improved')

**87%**
**habitat extent**
(21% 'much improved' and 66% 'improved)

**86%**
**habitat connectivity**
(19% 'much improved' and 67% 'improved')

**68%**
**species status**
(10% 'much improved' and 58% 'improved')

Key findings from Approach 1 include:

- A substantial improvement in biodiversity outcomes due to the NIA initiative was perceived by survey respondents and partnership chairs, and most national stakeholders felt that the NIA initiative accelerated and broadened the scope of biodiversity activities in NIAs, although some felt that biodiversity activities funded through environmental stewardship grants might have happened anyway.
- The NIA initiative led to a greater focus on ecosystem services and in particular enhanced outcomes in flood and water management, based on NIA partnership chair interviews. National stakeholders felt that the NIA initiative raised awareness of ecosystem services and led to better coordination between Water Framework Directive and biodiversity activities.
- The NIA grant funding was felt by NIA partnership chairs to have enabled projects with integrated objectives (e.g. combining social and conservation outcomes) that would not have happened in the absence of the NIA initiative. Survey respondents perceived enhanced community relations to be the most improved social and economic benefit achieved by the NIA partnerships.

[35] See: http://publications.naturalengland.org.uk/publication/4553703239450624
[36] https://www.gov.uk/government/publications/guide-to-countryside-stewardship-facilitation-fund
[37] See Annex 1
[38] All 12 NIA partnership chairs were interviewed. Seven interviews were undertaken with national stakeholders, including the Environment Agency, Forestry Commission, Wildlife Trusts, RSPB, the National Association for Areas of Outstanding Natural Beauty, the Game and Wildlife Conservation Trust and the National Farmers Union. The online survey was shared with 260 individuals, including partner organisations and NIA partnership staff (project officers/managers, M&E leads etc.) the response rate was 46% (n=122).

- More effective partnership working was felt to have been a key benefit of the NIA initiative. Partnership chairs expressing that the government grant enabled staff to be employed to coordinate partnerships and encourage joined-up working. National stakeholders felt that NIA partnerships were broader and better coordinated than would have been possible otherwise.

Approaches 2 and 3 were experimental and tested whether comparative data on uptake of environmental stewardship options could provide the basis for assessing the difference landscape scale conservation interventions (such as the NIA initiative) have in a particular area. No statistically significant relationships were found between the presence of the NIA partnership and the uptake of environmental stewardship options, in either the trajectory analysis (Approach 2) or the matched comparison analysis (Approach 3). This was due to the number of confounding factors, including important changes in agricultural policy over the time period examined and the wide variation among the NIAs themselves.

Analysis of NIA data from the online reporting tool and evidence from Approach 1 suggests that rather than increasing the total quantity of non-entry level stewardship agri-environment options, the NIA partnerships focused on improved coordination of options across their areas, both spatially and the types of options.

**Table 2: Summary of views expressed as part of the counterfactual research (Approach 1)**

| Theme | NIA partners (survey) | NIA partnership chairs (interviews) | National stakeholders (interviews) |
|---|---|---|---|
| **Biodiversity** | • The majority of respondents considered that biodiversity benefits had been delivered over and above what would have happened anyway. | • The majority of partnership chairs considered biodiversity benefits to have been delivered over and above what would have happened anyway. | • Some national stakeholders felt that biodiversity activities funded through environmental stewardship grants might have happened anyway, but most national stakeholders felt that NIAs sped up delivery and improved coordination of these activities. |
| **Ecosystem services** | • Significant variation in responses about the extent that the NIA initiative has led to additional ecosystem service outcomes across NIAs depending on objectives and nature of NIAs. | • The majority of partnership chairs felt that there was a greater focus on ecosystem service outcomes from habitat management than would have happened otherwise.<br>• Specific benefits noted included flood/water management, woodland products and carbon storage and sequestration. | • The majority of national stakeholders felt that the NIAs raised the profile of ecosystem services and some felt that improved coordination between Water Framework Directive (WFD) and biodiversity activities was achieved. |
| **Social and economic wellbeing** | • Respondents felt that community relations were most improved by the NIA partnerships among these areas of activity. | • The majority of partnership chairs felt that the NIA government grant funding enabled projects with broad objectives that would have struggled to get off the ground otherwise. | • No views were expressed by national stakeholders. |
| **Partnership working** | • 93% of respondents considered partnership working to be more (57%) or much more (36%) effective than would have happened otherwise. | • The majority of partnership chairs felt that funding for staff enabled people to work with and support other partners and challenged silo-thinking. | • The majority of national stakeholders felt that the NIA initiative had led to broader and better coordinated partnerships than would otherwise have existed. |
| **Other findings** | • Narrative comments added to the survey by respondents indicated an overall sense of | • The majority of partnership chairs felt that NIAs: provided a forum for bringing partners together | • Some national stakeholders felt that the NIA initiative served to accelerate and broaden the scope of |

| Theme | NIA partners (survey) | NIA partnership chairs (interviews) | National stakeholders (interviews) |
|---|---|---|---|
| | achievement among partners.<br>• 88% of respondents considered NIAs to have contributed to Lawton's vision, though a three year timescale was deemed too short to achieve large scale and lasting improvements.<br>• A majority of respondents identified improvements in the development of a shared vision and sharing of information and resources.<br>• A majority of respondents expressed that NIA status generated wider stakeholder engagement and had benefits in attracting match funding.<br>• Additional workload and administrative burden were the main challenges expressed by the NIAs. | around a common vision; and improved awareness of the landscape scale approach within partner organisations.<br>• The majority of partnership chairs felt that the NIA government grant funding and NIA status acted as a catalyst for match funding and galvanising partners. Flexibility of use of funding was seen as critical.<br>• Most partnership chairs felt that three years not long enough to make a real difference.<br>• Some partnership chairs felt that the NIA government grant helped 'plug a gap' left by cuts to statutory agencies and local authorities who might otherwise have funded some of the types of activity completed by NIA partnerships. | activities that may have happened anyway.<br>• The majority of national stakeholders felt that: the flexibility of funding enabled new types of partnerships; and that committed, enthusiastic partners made a relatively small amount of money go a long way.<br>• Some national stakeholders also felt that the NIAs helped to bring statutory agencies together and improved communication between them. |

## NIA partnerships' plans for the future

All the NIA partnerships have considered how they will continue to deliver their objectives in the future, focusing on the period to 2020. Based on information from interviews with NIA partnership chairs (January 2015) and NIA progress reporting, four NIA partnerships had already secured funding to support aspects of delivery at the end of the grant funded period and all NIAs were actively seeking funding to support their ongoing work. Common sources of funding being targeted included the Heritage Lottery Fund (for Landscape Scale Partnerships) (mentioned by six of NIA partnerships) and European Union funding (e.g. LIFE+[39] and INTERREG[40]) (mentioned by four of the partnerships).

In January 2015 Defra announced the Countryside Stewardship facilitation fund. Groups formed from four of the NIAs were awarded funding when the result of the first round of facilitation funding was announced in July 2015[41]. These groups were established to take forward land management action with Countryside Stewardship funding within the area, but working to smaller boundaries than the associated NIAs.

NIA partnerships were also exploring other ways to support ongoing delivery of their objectives and principles: six NIA partnerships specifically referred to existing Local Nature Partnerships, or other established local natural environment focused partnerships, as being integral to continued delivery of NIA objectives after March 2015.

Despite the expressed intent, the extent to which NIA partnerships will continue to be actively delivering NIA objectives is not known. Interviews with NIA partnerships in 2014 suggested that ongoing conservation work that may be consistent with NIA objectives is expected in all NIAs. However, this may not be branded as delivering NIA objectives or the NIA approach in future. Three NIAs interviewed expressed that the NIA had developed a strong local identity. Ongoing monitoring

[39] See: http://ec.europa.eu/environment/life/funding/lifeplus.htm
[40] See: http://www.interreg4c.eu/programme/
[41] See: https://www.gov.uk/government/publications/countryside-stewardship-facilitation-fund-successful-applications

and reporting would be needed to understand the extent to which all the NIA objectives have been delivered in the longer term.

## Lessons learnt

The NIA initiative was intended to be innovative, with NIAs testing approaches and helping to test what works. It was intended from the outset that the 12 government grant funded NIAs would represent a learning process and an opportunity to build a practical evidence base. The monitoring and evaluation framework and process was also experimental, with a key outcome being the lessons that have been learnt over the three years.

### What worked well and why?

#### *Shared objectives and joined-up working*

- The process of creating shared visions for each NIA was valuable. For example, this brought diverse partner organisations together to discuss and agree priorities.
- The NIAs were involved in sharing data and knowledge both with other NIAs and between organisations involved within each partnership. In some cases, this led to improved communications between organisations that traditionally had not worked together.
- Joint working between partners within an NIA led to improved coordination and opportunities to achieve outcomes that might otherwise have been missed.

#### *Integrated delivery*

- The breadth of the NIAs' objectives (e.g. including objectives related to biodiversity, geodiversity and social and economic benefits) and the greater flexibility compared to other funding sources (e.g. agri-environment) provided opportunities to explore and exploit multiple benefits. For example, in Dearne Valley restoration of floodplain habitat through direct land management resulted in the creation of open water and lowland wet grassland habitat and flood storage potential, improving flows and habitat diversity.
- The integrated and coordinated approach to delivery, meant that NIA partnerships promoted conservation outside protected or designated areas.

#### *People and partnerships*

- The enthusiasm, energy and expertise of the people working within the NIA partnerships was a key factor in their success and helped them achieve a considerable amount in a short time.
- New partnerships require sufficient time to set up. The existing expertise in most NIA partnerships was also an important resource in the early stages of the NIAs. Nevertheless, entirely new partnerships were successfully established in two NIAs.
- Mobilising people and local community groups was of great benefit in assisting delivery of the NIAs achievements. The amount of volunteer time mobilised played a major role in successful implementation.
- At the national level, in 2012 the Secretary of State requested that Natural England, the Environment Agency and the Forestry Commission work together to support the NIAs, and this support was mentioned by many NIA partnership chairs as an important factor in delivery of NIAs locally.

NIA partners' survey respondents:

***"… the incredible work done by the NIA to improve the access for the driving for the disabled group. There is no question that without the NIA this would not have happened"***

***"site enhancement projects will have improved the aesthetic quality of sites and relations with certain sections of communities"***

***"local communities can see real changes in the landscape as a result of the NIA"***

#### *The value of the government grant*

- The government grant funding played an important role in the NIAs' achievements. For example, the NIA partnership chairs referred to it being a key factor in their success, especially the flexibility with which the grant could be spent and the focus on locally specific priorities

inherent in the NIA initiative design.

- The government grant was important in mobilising additional resources, by encouraging match-funding and enabling NIAs to show potential partners that real change is possible, for example through demonstration projects.

### *Monitoring and research*

- The structured monitoring and evaluation process provided potential benefits to the NIAs. For example, some NIAs found it provided a useful evidence base to make the case for how effective NIAs were in support of funding applications.
- There were many successful collaborations between the NIAs and the education and research sectors. For example, NIA partnerships engaged local universities to help undertake research and support monitoring (e.g. through ecological surveys and ecosystem service valuations).

## What was challenging and why?

### *NIA Implementation and delivery*

- The short timescale to prepare bids presented some challenges. For example, some partnership chairs reported that the limited time meant that much of the community and partner buy-in had to be developed during project implementation. They also noted that this may have resulted in lower levels of consensus being developed amongst partners early on.
- During the first year, particularly for the NIAs delivered by new, or much expanded, partnerships, the set-up time required meant that it was potentially difficult to meet delivery expectations.
- The three years of grant funding was a relatively short period – indeed, the Lawton review recommended that the initiative should be funded for 'at least five years'. This was confirmed by some of the NIA partnership chairs who felt the three years was too short to see real sustainable change, especially for biodiversity outcomes.
- A key challenge at the end of the government grant funding period, as well as for the future, was how to continue delivery of each NIA's objectives. Some NIAs had already been successful in securing some new funding, although this may have different priorities and objectives.

### *Monitoring and evaluation process*

- Even though it was inherent in the NIA initiative design, the experimental nature of the monitoring and evaluation framework and indicators, and the fact that both were developed during NIA implementation, was a challenging process for NIA partnerships and the evaluation team.
- Monitoring and evaluation required a lot of time and energy at the NIA level and needed more external support than was originally anticipated. A more streamlined approach and ongoing support are likely to be required if NIA partnerships are to continue monitoring.
- The online reporting tool provided a single portal to record NIA data following a common reporting structure. Some of the technical features of the tool, combined with the intended flexibility of the monitoring and evaluation framework, posed challenges and some users struggled to operate the tool independently even though guidance, training and support were provided.

## What are the lessons for implementing, monitoring and evaluating integrated land-use and management initiatives?

### *Implementation*

- An important success factor for the NIA initiative was the flexibility allowed in the use of the grant funding (i.e. how it could be spent locally). As intended, this enabled local projects to develop tailored expenditure plans aligned with local needs and objectives.

- The NIA partnerships showed that integrated delivery can work, for example using volunteers delivering conservation actions and engaging local schools and communities in their local environment can deliver benefits for both nature and for the participants.
- The NIAs demonstrated how projects led by partnerships can be successful. However, the time and effort needed to establish and maintain partnerships where they do not already exist should be factored into policy implementation.
- National (government) leadership and recognition was important for the NIA initiative: it motivated people delivering projects locally and provided authenticity and visibility that was used, for example, to support funding bids and to encourage wider engagement. This may not be present to the same extent for local, voluntary and unfunded 'NIAs'

### *Monitoring and evaluation*

- One of the aims of the NIA initiative was to test and develop approaches to delivering integrated landscape scale, partnership-led conservation. In designing innovative and experimental approaches it should be recognised that monitoring requires resources, skills and planning and local projects may require support. In addition, longer-term monitoring may be required (e.g. for five years or more after end of funding period) to understand if sustained change in approaches to delivery, and associated outcomes, are realised.
- There may be different approaches and priorities between monitoring to assess progress in delivering local initiatives with evaluation of effectiveness across an initiative as whole. This can lead to a potential tension between reporting on monitoring project outcomes (e.g. successes in achievement) and evaluating them critically. Monitoring, and potentially evaluation, require the building of working relationships and connections with projects, which can conflict, or be perceived to conflict, with independent evaluation. While this is a common tension in evaluation, protocols and procedures can help overcome these issues.

## What are the lessons for designing the evaluations of complex environmental policy?

### *Evaluation design, framework and objectives*

- Setting clear programme level objectives at the outset to reflect the relationship between the programme and project level objectives can aid robust evaluation. A mixed approach that allows consistent monitoring and evaluation for some objectives and more flexible reporting to reflect local objectives may be effective, but where possible this needs to be established early in the project cycle.
- In designing an evaluation it is important to recognise that timescales of delivery (activities and outputs) may differ from intervention outcomes and impacts, and that many impacts, especially in natural environment initiatives, cannot be detected over time periods of less than 5 years and in some cases decades. Where possible, therefore, longer-term monitoring should build on existing data and plan for the re-assessment of key indicators after the funded intervention has completed. Process evaluation can also help to assess if delivery is on track to achieve intended outcomes and impacts, even if these are beyond the initial evaluation period.
- An effective evaluation is likely to require an evaluation framework supported by, for example, a clear logic model. Given the potential for delays between activities and outcomes and impacts a theory of change[42] model(s) can be a useful approach, accompanied by mechanisms for testing/proving the theory of change.
- Full impact evaluation may not be possible for some complex policy interventions, especially where these are delivered over relatively short timescales, and it may be appropriate to scope during the policy design phase what it is possible for an evaluation to deliver.

[42] HM Treasury (2011) *The Magenta Book Guidance for Evaluation*: A theory of change 'involves the specification of an explicit theory of "how" and "why" a policy might cause an effect which is used to guide the evaluation. It does this by investigating the causal relationships between context-input-output-outcomes-impact in order to understand the combination of factors that has led to the intended or unintended outcomes and impacts' (p.57, Box 6c)

- When considering the counterfactual, it would be helpful if options considered in the early stages of developing a policy / initiative had undergone some form of options appraisal (*ex-ante* assessment). Such assessments can help inform the development of counterfactuals for any subsequent evaluation at the policy / initiative level.
- Where possible a baseline should be established at the outset of an intervention to support monitoring - this can also be useful as part of a theory of change approach where time lags are expected before outcomes and impacts are realised. The creation of novel geographic entities and the varied objectives of the NIAs meant that in most cases locally specific baselines were not readily available at the outset. The NIA monitoring and evaluation project supported the NIAs in building a practical evidence base and undertaking research which will be valuable in the future.

### *Data sources and reporting*

- A combination of quantitative monitoring data and qualitative information (e.g. from interviews and surveys) has been used in measuring and understanding the achievements of the NIAs. For natural environment policy implementation, qualitative data collection and social science research methods may provide relatively low cost evaluation results compared to quantitative approaches that require ecological survey or other monitoring effort.
- The use of existing national datasets and centralised analysis where possible can support effective, robust and efficient evaluation at both programme and local levels.
- Self-reported data and locally specific indicators can play a useful role in regard to representing the diversity of NIAs. However, the NIA initiative illustrated that such approaches require support and facilitation, and therefore resources, and may result in data that are not comparable across intervention areas.
- Regular progress reporting by intervention participants (e.g. the quarterly progress reports NIAs were required to submit to Natural England) can be a valuable data source for evaluations. This can be facilitated if it is designed and structured to aid combining and/or comparisons between NIAs.
- Careful consideration is needed in the commissioning and design of bespoke IT systems for short-term policy interventions to ensure that they are proportionate and provide value for money, taking into account the design, maintenance implementation and support costs.

## Conclusions

This report illustrates that the NIA partnerships achieved a great deal in a relatively short period of time, meeting, and in some cases exceeding, their project objectives. They formed or developed partnerships, established shared visions and objectives for the natural environment in their areas, and implemented ambitious work programmes to deliver these objectives. Over the period 2012 to 2015, the NIA partnerships secured additional resources with a total value of £26 million, in addition to the initial government grant. Based on NIA financial reporting to Natural England, 60% of the total resources were used for project implementation[43,44]. The investment made by government in the form of the NIA grant, has enabled the NIAs to start to unlock and deliver integrated landscape scale activity that inspires people, mobilises resources and improves the natural environment.

The NIAs delivered a range of integrated benefits, including: real change in the quality and quantity of priority habitats; enhanced ecosystem services; worked with a wide range of partners and involved many people as volunteers or visitors, leading to benefits for local communities and the economy.

Key lessons from the evaluation of the NIA initiative included that:

- shared visions and objectives for the NIA partnerships improved communication between organisations, encouraged joined-up working and more integrated implementation;

[43] This represents an equivalent value of £20.3m, compared to the initial government grant of £7.5million
[44] i.e. land management activity / improvement works including capital items

- partnership-led, landscape scale land management contributed to successful implementation. However, sufficient resources need to be dedicated to local coordination and management if partnerships are to function well;
- the flexibility inherent in the design of the initiative was an important success factor;
- partnerships bringing conservation organisations together with local businesses, land managers, research institutions and local authorities proved effective in delivering land management in the integrated way envisaged by the NIA initiative;
- visible government support and leadership and a clear policy message provided impetus for local project delivery and helped local projects in sourcing additional resources;
- the scale of funding available to NIAs was critical to their success; the initial government grant, for example, enabled partnerships to employ staff, leverage match-funding and initiate demonstration projects that have encouraged others to get involved; and,
- longer term activity (beyond the three years of grant funding in NIAs) will be required to deliver sustainable impact, with associated monitoring and evaluation to understand if lasting changes have been realised.

Professor Sir John Lawton's Making Space for Nature (Lawton *et al*., 2010) envisaged the 12 initial NIAs[45] as being part of a wider and longer-term change in approach to wildlife conservation. The government grant funded NIAs represented an initial contribution to the 'step-change' that Professor Sir John Lawton envisaged: a new, approach to ecological restoration which rebuilds nature and creates a more resilient natural environment for the benefit of wildlife and ourselves, with a vision to 2050. The true value and impact of the 12 NIAs will only be realised in the longer-term as achieving ecological restoration will require many years of effort, and if they inspire and help provide a business case to enable others to follow suit and build on the experience and knowledge developed over the last three years.

Groups formed from four of the NIAs are among the 19 projects that were awarded funding under the first round of Countryside Stewardship facilitation fund grants in July 2015. Other groups with a proximity to NIAs, for example Farmers for Aqualate with the Meres and Mosses NIA, were asked to take account of local NIA objectives as well as other relevant strategies. Learning from the NIA initiative, the Countryside Stewardship facilitation fund represents a new approach within agri-environment funding (by encouraging groups of farmers and other land managers with neighbouring land to deliver Countryside Stewardship priorities in a way that creates better-connected habitats across the landscape)) which may help in optimising biodiversity outcomes at the landscape scale.

The lessons learnt from the monitoring and evaluation of NIAs that are presented in this report are also available as an input to the development of future policy on the integrated management of natural resources including, for example, as set out in the government's response[46] to the Natural Capital Committee's third State of Natural Capital report.

[45] Referred to as ecological restoration zones in the Lawton Review.
[46] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/462472/ncc-natural-capital-gov-response-2015.pdf

# Part I: Introduction and Background

# 1. Introduction

## 1.1 Introduction to the NIA monitoring and evaluation project

The Nature Improvement Areas (NIA) Monitoring and Evaluation (M&E) project[47] was commissioned by the Department of the Environment, Food and Rural Affairs (Defra), in collaboration with Natural England, in February 2013. The project involved gathering evidence and assessing the individual and aggregated progress and achievements of the NIA partnerships over their three year grant funded period (April 2012 to March 2015)[48]. This was a combination of a process and impact evaluation – i.e. focussing on both how the NIA partnerships delivered their objectives, as well as the impact of what was delivered across a range of topics including biodiversity, ecosystem services and social and economic benefits and contributions to wellbeing. The project also aimed to maximise learning from the NIAs and build a practical evidence base to inform future landscape scale initiatives.

This is the final report from the project and follows the interim findings presented in the Progress Reports at the end of Year 1 (2012-13) published in September 2013 (CEP, 2013) and Year 2 (2013-14) published in November 2014 (CEP, 2014a).

The policy context and background to the establishment of the NIAs is outlined in Section 2. This section also includes an overview of the characteristics of the NIAs.

### 1.1.1. Objectives of the monitoring and evaluation project

The overall objectives of the NIA monitoring and evaluation Phase 2 project, as set by Defra and Natural England, were:

- to assess the individual and aggregated contribution of the 12 initial NIA partnerships towards meeting biodiversity commitments in the Natural Environment White Paper (NEWP) – *Natural choice – securing the value of nature* (HM Government, 2011a), as well as outcomes in Biodiversity 2020 (Defra, 2011) and other national and international objectives, targets and commitments[49]; and
- to gather evidence of approaches used within the NIA partnerships and their outcomes, to maximise learning from them and build a practical evidence base to inform future landscape scale initiatives about the NIA approach.

Section 3 describes the monitoring and evaluation approach in more detail.

## 1.2 Introduction to the final report

### 1.2.1. Focus of the report

The final report focuses on:

- the key cumulative progress and achievements made by the NIA partnerships during the three grant funded years of operation;
- an evaluation of the activities within the NIAs and the extent to which change can be attributed to NIA partnerships' activities;

[47] Collingwood Environmental Planning (CEP), with its partners GeoData Institute and Cascade Consulting, were commissioned by Defra (in collaboration with Natural England) in February 2013 to undertake Research Project WC1061 - Monitoring and evaluation of Nature Improvement Areas: Phase 2 http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=2&ProjectID=18555.

[48] Note that this report, and the monitoring and evaluation project overall, covered the 12 initial NIAs that received grant funding. It has not considered any of the locally determined NIAs subsequently established. Therefore throughout this report reference to "the NIAs" refers to the initial 12 NIAs that received grant funding only.

[49] e.g. the UK Governments' wider ambitions for economic growth and the expansion of the green economy; targets agreed at the Tenth Conference of the Parties to the Convention on Biological Diversity; and the broader aims and intent of the European Landscape Convention.

- an overall evaluation of the NIA initiative including the resources required, benefits realised and extent to which the aims were achieved;
- the wider learning from the NIA initiative, such as:
  - reflections on what worked well, and what proved challenging in implementing the initiative and individual NIAs;
  - challenges and opportunities for landscape scale, partnership led approaches; and
  - lessons learned in relation to monitoring and evaluation.

### 1.2.2. Intended audiences

The principal audience for this report is Defra and Natural England, who managed the delivery of the NIA initiative. In addition, the other government departments and bodies involved in supporting the NIAs, including the Forestry Commission, Environment Agency and Department for Communities and Local Government, will have an interest. Other potential audiences include the NIA partnerships and the partners themselves, and those involved or with an interest in landscape scale conservation initiatives, such as Non-Governmental Organisations (NGOs), local authorities and the academic community involved in research related to the natural environment and the benefits it provides. Local Nature Partnerships (LNPs), local planning authorities and others considering supporting locally determined NIAs may also be interested.

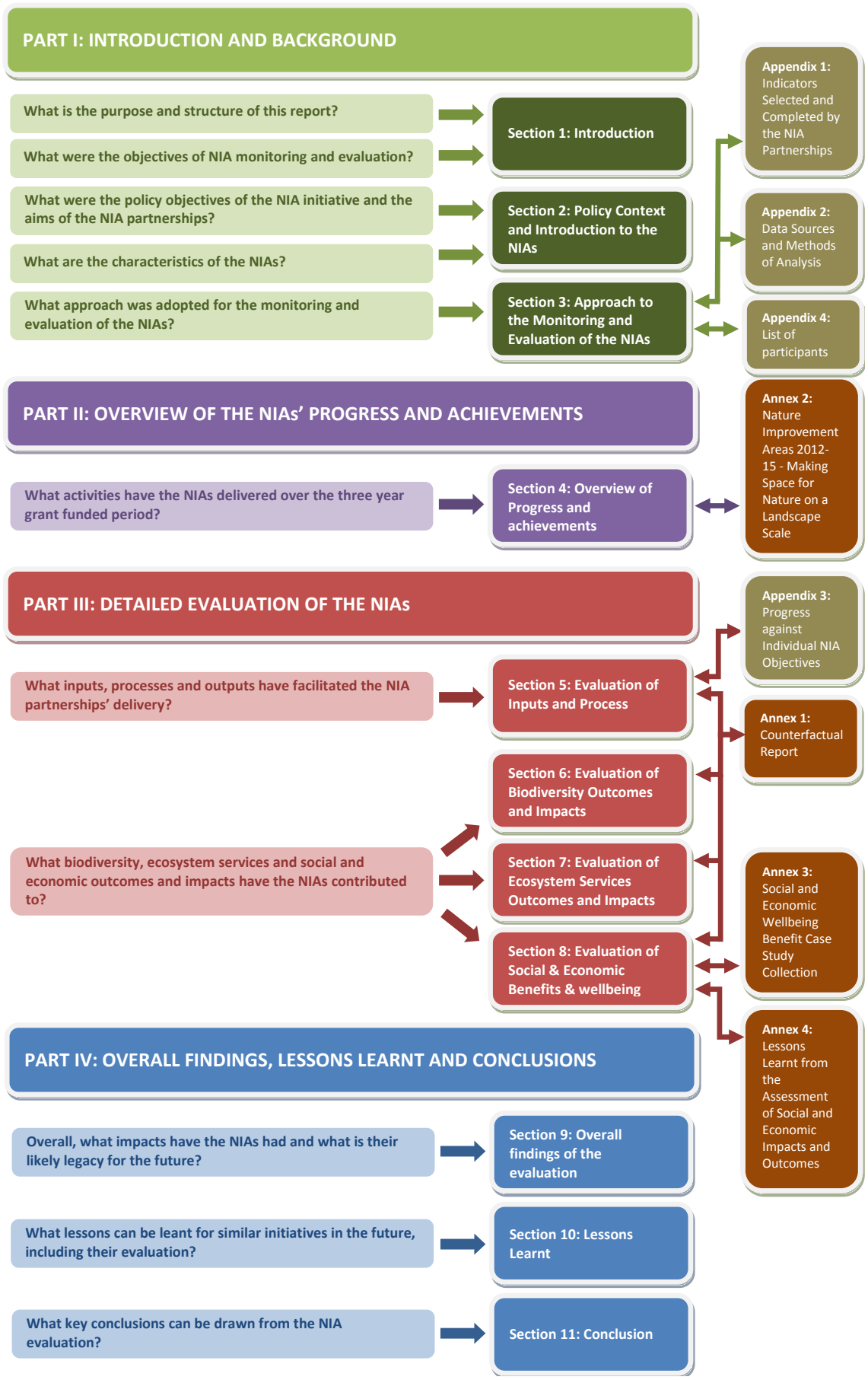
### 1.2.3. Report structure

The report has four main parts, as shown in Figure 1.1 which provides a guide to readers on how the information is organised in the report. The structure of the final report draws on the steps in the logic model[50] (i.e. inputs, processes, outputs, outcomes and impacts - see sub-section 3.2.1 and Appendix 2) and the themes in the NIA monitoring and evaluation framework (i.e. biodiversity, ecosystem services, social and economic benefits and contributions to wellbeing, and partnership working - see sub-section 3.1.2).

The report includes four appendices which provide further details on the monitoring data and information that was collated and used as part of the evaluation, the methods of analysis used, the progress against individual NIA objectives and the participants in the various monitoring and evaluation workshops, meeting and other engagement activities undertaken during the course of the Phase 2 project. In addition, the report is supported by four annexes which are in separate volumes to the main report.

[50] A logic model seeks to understand the complexity of a policy intervention and the relationship between an intervention's inputs, activities, outputs, outcomes, and impacts.

## Figure 1.1: Navigating the report



# 2. Policy Context and Introduction to the NIAs

## 2.1 Policy background and NIAs' aims

The establishment of the NIAs was announced in the NEWP (HM Government, 2011a). The NIAs were introduced to create joined up and resilient ecological networks at a landscape scale and to deliver these in an integrated way, enhancing ecosystem services including social and economic objectives. They were intended to be large, discrete areas where a local partnership had a shared vision for their natural environment which would play a part in helping to demonstrate how a 'step change'[51] in nature conservation might be delivered. The programme took forward the recommendations of Professor Sir John Lawton's review of England's Wildlife Sites and Ecological Network: Making Space for Nature (Lawton *et al.*, 2010) and links to the shift of emphasis from site-based conservation towards a more integrated landscape scale approach advocated in the Biodiversity Strategy for England (Defra, 2011) and as a contribution towards commitments to the Convention on Biological Diversity[52].

The Lawton review considered whether England's wildlife areas represented a coherent and robust ecological network that would be capable of responding to the challenges of climate change and other pressures. The review highlighted the highly fragmented state of nature in England and made a key recommendation that Ecological Restoration Zones (ERZs) need to be established, 'operating over large, discrete areas within which significant enhancements of ecological networks are achieved by enhancing existing wildlife sites, improving ecological connections and restoring ecological processes'. The Coalition Government (2010-15) responded to the Lawton review through the NEWP, and supporting the establishment of NIAs was the government's response to this specific recommendation.

The overall aims of the NIAs were to:

- **become much better places for wildlife** – creating more and better-connected habitats over large areas which provide the space for wildlife to thrive and adapt to climate change;
- **deliver for people as well as wildlife** – through enhancing a wide range of benefits that nature provides us, such as recreation opportunities, flood protection, cleaner water and carbon storage; and
- **unite local communities, land managers and businesses through a shared vision for a better future for people and wildlife**. The hope is that they will become places of inspiration, that are loved by current and future generations.

The 12 selected NIA partnerships started work in April 2012, following a national competition which attracted 76 bids for a share of £7.5 million of government funding. The location of the NIAs is shown in Figure 2.1. The NIAs were partnerships of local authorities, local communities and land managers, the private sector and conservation organisations. The NIA Grant Scheme provided funding to the partnerships for three years and was intended to enable the 12 selected NIAs to help provide inspiration locally and build a practical evidence base.

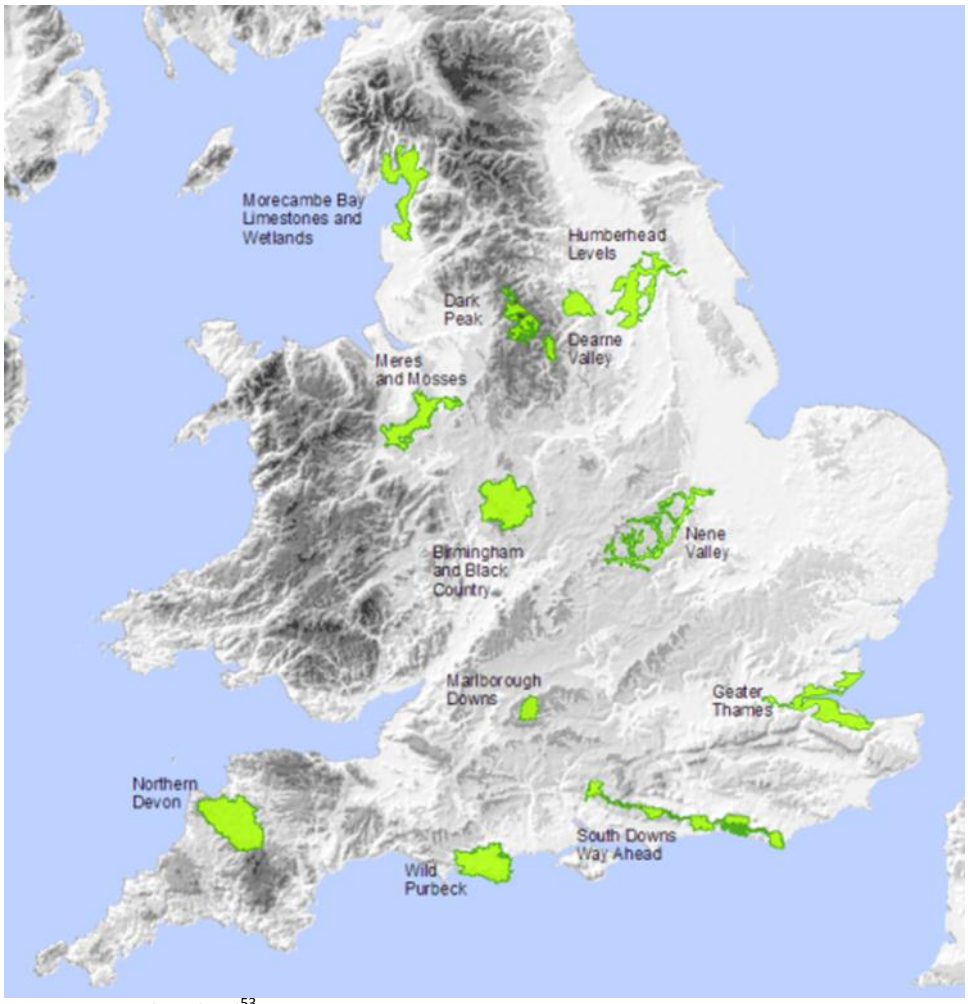
The NIA initiative aimed to trial and test innovative, integrated and coordinated approaches at a landscape scale to improve biodiversity, ecosystem services and people's connections with their natural environment. Further details on the requirements and aspirations for the NIAs were provided in guidance developed by Natural England and Defra. This set out who could apply for the NIA grant scheme, and what was expected from NIA partnerships, i.e.:

- opportunities to deliver ecological networks;

[51] Sir John Lawton's review imaged a step change being a shift from 'trying to hang-on to what we have' to an approach of 'large-scale habitat restoration and recreation, under-pinned by the re-establishment of ecological processes and ecosystem services'. Professor Lawton's vision was long-term: to 2050, and defined as a 'direction of travel, not an end point'.
[52] www.cbd.int

- a shared vision for the natural environment among a wide partnership;
- significant improvements to the ecological network being achievable;
- surrounding land use can be better integrated with valued landscapes;
- benefits to urban areas and communities can be achieved;
- that "win-win" opportunities are identified; and
- that there are opportunities to inspire people through an enhanced experience of the outside world.

**Figure 2.1: Location of NIAs**




**Source:** Natural England[53]

Natural England also set out the components of an ecological network which were considered key to successful NIA partnerships[54]:

- **core areas**, especially existing wildlife sites (National Nature Reserves (NNRs), Sites of Special Scientific Interest (SSSIs), Local Nature Reserves (LNRs) etc.);
- **corridors and stepping stones**;
- **restoration areas**, where priority habitats are created to provide (in time) more core areas;
- **buffer zones**, that reduce pressures on core areas; and

[53] Natural England NIA boundary data on Shuttle Radar Topography Mission (STRM) hill-shaded relief base map
[54] https://www.gov.uk/government/publications/nature-improvement-areas-improved-ecological-networks/nature-improvement-areas-about-the-programme

- **surrounding land** that is managed including for sustainable food production, in a wildlife friendly way.

The area of each NIA was required to be greater than 10,000ha, unless there was a strong case for a smaller area with an obvious boundary with significant ecological enhancement opportunities. To reduce risk of effort being spread too thinly, the partnerships were also asked to avoid proposing overly large areas (in excess of 50,000ha) unless they could convincingly demonstrate significant enhancements likely to be achieved throughout the NIA.

In addition to the 12 Government-funded NIAs, Defra set out a role for Local Nature Partnerships (LNPs) to work with and support these NIAs as well as to help establish new, locally determined NIAs. Defra stated that Local Planning Authorities should decide whether and how to recognise an NIA in their local plans and they published criteria intended to help Local Authorities, LNPs and other local partnerships identify the locally determined NIAs (Defra, 2012a). The locally determined NIAs were encouraged to apply the monitoring and evaluation framework (see sub-section 3.2.1), NIA criteria and lessons learnt from the 12 initial NIAs to help inform their development and progress. However, the locally determined NIAs were not in the scope of this evaluation report.

## 2.2 The characteristics of the NIAs

The selected NIA partnerships varied considerably, including the habitats and landscapes they covered, the number and types of partners involved and their organisational arrangements. This variety across the NIAs was intentional in order to test a range of approaches. The types of habitat within the NIAs ranged from farmland and urban habitats to chalk downland, moorland, marsh, woodland, heathland, grassland and wetland (see Table 2.1). They varied considerably in size, from the smallest Marlborough Downs (10,398ha) to the largest Northern Devon (72,560ha). The populations living within or in close proximity to the NIAs also varied, with many being relatively sparsely populated in contrast to Birmingham and Black Country NIA where 2.2 million people lived.

**Table 2:1: Broad types of habitat present in the NIAs and their size**

| NIA partnership | Area (ha) | Lead partner (*accountable body when not lead*) | Broad types of habitat present |
|---|---|---|---|
| **Birmingham and Black Country** | 62,470 | The Wildlife Trust for Birmingham and the Black Country | Urban, wetland, river and heath |
| **Dark Peak** | 28,540 | RSPB | Moorland and woodland |
| **Dearne Valley Green Heart** | 16,514 | RSPB | Farmland and former mining settlements with woodland and wetland |
| **Greater Thames Marshes** | 54,337 | Thames Estuary Partnership | Agricultural, marsh and urban |
| **Humberhead Levels** | 49,869 | Yorkshire Wildlife Trust | Wetland, lowland and peat |
| **Marlborough Downs** | 10,398 | The Marlborough Downs NIA Ltd | Chalk downland |
| **Meres and Mosses of the Marches** | 40,153 | Shropshire Wildlife Trust | Wetlands, peat bogs and ponds |
| **Morecambe Bay** | 49,139 | Arnside and Silverdale AONB (*Lancaster County Council*) | Limestone, wetland and grassland |
| **Nene Valley** | 41,479 | River Nene Regional Park (*Northamptonshire County Council*) | Post-industrial, river and wetland |
| **Northern Devon** | 72,560 | Devon Wildlife Trust | River, woodland and grassland |
| **South Downs Way Ahead** | 41,520 | South Downs National Park Authority | Chalk downland |
| **Wild Purbeck** | 46,165 | Dorset AONB (*Dorset County Council*) | River, wetland, heath and woodland |

**Source:** based on overview of NIA characteristics provided by Natural England updated June 2014 (areas updated 18/08/2013)

The NIAs included a range of different nature conservation and landscape designations, and many of the NIAs also included areas covered by other initiatives, including catchment based approach pilots, biodiversity offsetting pilot areas, LNPs, Living Landscapes and Futurescapes.

### *NIA partners and lead organisations*

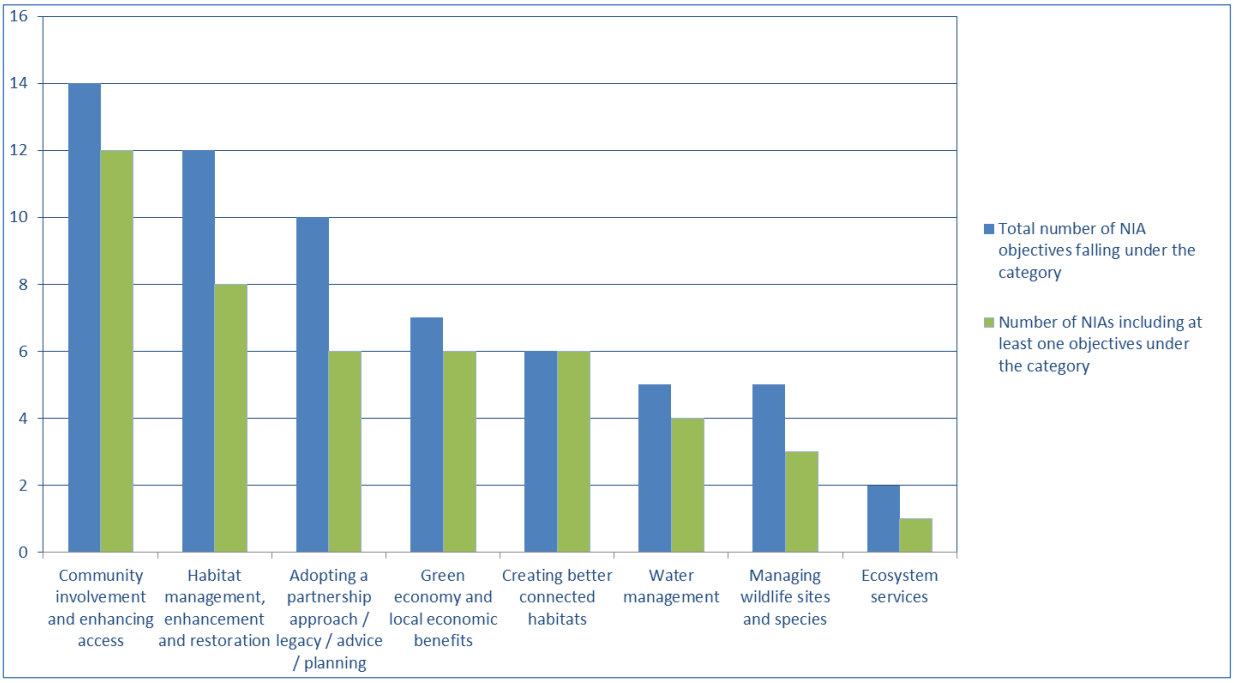
The NIA partnerships were led by a variety of different types of organisation (see Table 2.1). Four NIA partnerships were led by wildlife trusts, two by Areas of Outstanding Natural Beauty (AONBs), two by the Royal Society for the Protection of Birds (RSPB), and the remainder included a new charitable company set up specifically for the NIA (Marlborough Downs), a national park authority (South Downs), a regional park authority (Nene Valley) and the Thames Estuary Partnership (Greater Thames Marshes). The type and number of formal partners involved varied greatly between the NIAs (from three partners in Marlborough Downs to more than 50 in Birmingham and Black Country). Arms-Length Bodies and Local Authorities were partners in all of the NIAs. Wildlife Trusts were also partners, or supporters, in all the NIAs. The National Farmers Union (NFU) or other land management bodies were partners in ten NIAs, with Marlborough Downs being the only farmer led NIA. Private sector organisations and businesses were involved as partners in ten of the NIAs, such as United Utilities in Dark Peak, JBA consulting in Humberhead Levels and Atkins in Birmingham and the Black Country. The RSPB were also a partner in ten of the NIAs, and other NGOs were partners in nine NIAs. Academia, including universities and local colleges, were partners in eight of the NIAs.

Seven of the 12 NIA partnerships evolved from existing partnerships in their areas; in three, partnerships already existed but the NIA partnership represented a fundamental change in partnership structure or size; and the remaining two NIA partnerships were established to bid for the NIA grant funding (Marlborough Downs and South Downs). In all cases the NIA initiative led to the broadening of partnerships to include more diverse partners.

### *NIA partnerships' objectives*

Within the framework provided by the overall aims of the grant scheme and the NIA criteria, the individual NIA partnerships were free to develop their own specific objectives to reflect their local priorities and situation. This reflected the intention that the NIA partnerships would be locally driven and test bottom-up approaches, with the models of delivery not being prescribed or dictated to them.

**Figure 2.2: Number of NIA partnerships' objectives under different categories**




The variety of the NIA partnerships was an important part of the initiative and was also intended to help test what works well, and not so well, in delivering landscape scale conservation. Their objectives reflected this variety and local priorities, for example Birmingham and Black Country were the only NIA to have an objective linking geodiversity and biodiversity - target actions for gains to geodiversity where there is a demonstrable associated biodiversity gain.

Figure 2.2 presents the number of NIA partnerships' objectives that fall under eight broad categories (note that generally each NIA had five objectives). This shows that whilst the 12 NIAs focused on specific aspects most relevant to them, many of the NIA partnerships had objectives under similar core categories such as: community involvement and enhancing access; and habitat management, enhancement and restoration. Other categories of objectives tended to be the focus of a few NIA partnerships each, such as promoting the green economy and local economic benefits and water management.

# 3. Approach to the Monitoring and Evaluation of the NIAs

## 3.1 Summary of the monitoring and evaluation requirements and process

### 3.1.1. NIA monitoring requirements

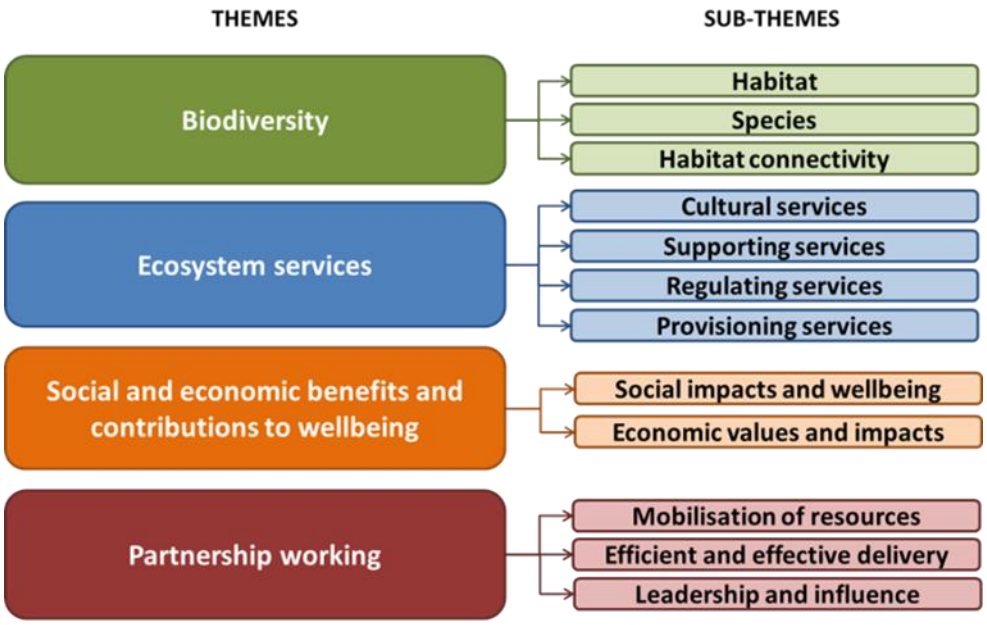
The NIA partnerships reported on progress quarterly to Natural England, including financial monitoring and progress against their agreed objectives and outputs. They also undertook monitoring following an agreed framework (see sub-section 3.1.2)[55] and reported annually using an online reporting tool (see sub-section 3.1.3).

### 3.1.2. NIA monitoring and evaluation framework

A draft of an experimental monitoring and evaluation framework for the NIA partnerships was developed as part of the first phase of the NIA monitoring and evaluation project[56]. The purpose of having a framework was to help ensure a systemic approach to monitoring and evaluation across all the NIAs, whilst also allowing the flexibility to monitor local priorities, and to provide a resource to support the NIAs in meeting their monitoring and evaluation requirements. The NIA initiative was also intended to test approaches for the integrated monitoring and evaluation of landscape scale approaches. The NIA partnerships applied several new concepts where practical tools and assessment methods are still developing, relating to restoration of habitat connectivity and ecosystem services for example.

The framework addressed four themes (biodiversity; ecosystem services; social and economic benefits and contributions to wellbeing; and partnership working) and a number of sub-themes (see Figure 3.1). A menu of indicators was developed, each with a supporting protocol to guide the NIA partnerships in how to monitor and report the indicator.

**Figure 3.1: NIA monitoring and evaluation indicator themes and sub-themes**




[55] More details on the NIA monitoring and evaluation requirements and process can be found on the NIA webpages: https://www.gov.uk/government/publications/nature-improvement-areas-improved-ecological-networks/nature-improvement-areas-about-the-programme

[56] Developing a framework for design, monitoring and evaluating pilot Nature Improvement Areas: Phase 1 Scoping Study – Defra research project WC1029. http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=1&ProjectID=17960

The framework and the accompanying indicators and protocols were reviewed and updated extensively during the second year of the Phase 2 project (see Appendix 1 for a list of the 36 indicators). The review drew on feedback from the NIA partnerships and research undertaken as part of the Phase 2 project into specific themes, such as ecosystem services and habitat connectivity. Key changes to the indicator protocols included: the introduction of a new core comparative indicator of habitat connectivity; clarification of indicator descriptions and methods; minor amendments to some of the indicator titles; and the provision of additional information and guidance including frequently asked questions (FAQs)[57] for the use of BARS (Biodiversity Action Reporting System) and local community surveys.

The updated monitoring and evaluation framework (CEP, 2014b) includes a set of principles, relevant roles and responsibilities, the overall approach to monitoring and evaluation and an overview of information sources. It was accompanied by updates to the online reporting tool (see sub-section 3.1.3).

The framework and indicators enabled the NIA partnerships to measure progress towards their objectives and wider impacts. Indicators were used as they are a way of describing complex factors and provide a more practical, focussed and economical way to track outcomes than recording every possible variable. Measuring the outcomes and impacts resulting from the NIA partnerships' activities was not always practicable, for example due to lack of available data and the time lag before outcomes and impacts might become apparent and measureable. Therefore, some of the indicator protocols focussed on recording processes and outputs (see sub-section 3.2.1). Appendix 2 includes details on the timescales for detectable outcomes for biodiversity and ecosystem services.

The NIA partnerships were not expected to select and monitor all the indicators. They all had to use the seven 'core' indicators, while the other indicators were optional as long as the NIAs included a range of indicators across the themes as set out in the framework. They chose from the menu of optional indicators based on which were most relevant to their local priorities. In addition, NIA partnerships were able to develop their own supplementary local indicators as required.

Appendix 1 shows the indicators selected and the data entered in the online reporting tool at the end of the third year of grant funding by the NIA partnerships. In total, 207 indicator selections were made and a further 11 local indicators were developed by the NIAs.

### 3.1.3. The online reporting tool

An online reporting tool[58] (Natural England, 2014b), was initially developed during the first phase of the NIA monitoring and evaluation project[59] to provide a structured data-entry tool for the NIAs to report and share data for their chosen indicators. The online reporting tool was reviewed and developed as part of the Phase 2 project for reporting by the NIAs in Year 2 (2013-14).

The online reporting tool was structured around the monitoring and evaluation framework and associated indicator protocols. It was designed to enable the NIA partnerships to record their total achievements against each indicator each year, rather than the detail of individual activities. The tool was also intended to complement rather than duplicate other existing systems of data recording, such as BARS (Biodiversity Action Reporting System).

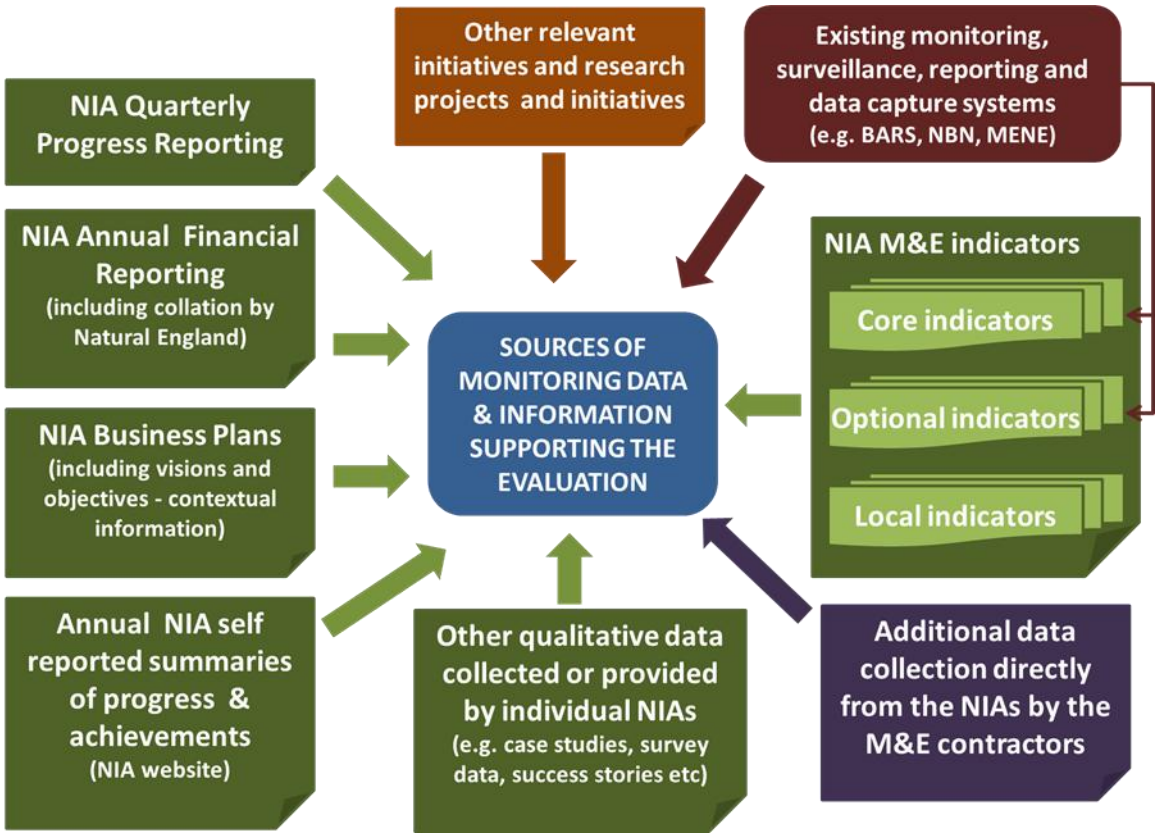
The online reporting tool had a 'report' page which used a 'tick-box' interface that enabled users to generate an online or downloadable data report by selecting any combination of NIA partnerships, monitoring and evaluation themes and indicators (e.g. it was possible to view all indicators for a specific NIA partnership, or a specific theme or indicator across all NIA partnerships). The report page was publically accessible for the duration of the grant-funded initiative (April 2012 – March 2015) so reports could be viewed or downloaded by anybody using the online reporting tool.

[57] Frequently Asked Questions
[58] See: http://nia.naturalengland.org.uk/index
[59] Defra Research Project WC1029: Developing a framework for design, monitoring and evaluating pilot Nature Improvement Areas: Phase 1 Scoping Study. http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&ProjectID=17960&FromSearch=Y&Publisher=1&SearchText=nature improvement&SortString=ProjectCode&SortOrder=Asc&Paging=10#Description

### 3.1.4. Information and data sources

A variety of qualitative and quantitative information was gathered for monitoring of the NIA partnerships. The information supporting the evaluation and this report was drawn from several sources, in addition to the online reporting tool, as illustrated in Figure 3.2. Appendix 2 provides further details on the main data sources which supported the evaluation, and summarises the key methods of analysis used.

**Figure 3.2: Sources of monitoring data and information supporting the evaluation**




## 3.2 Overall objectives and approach to the evaluation

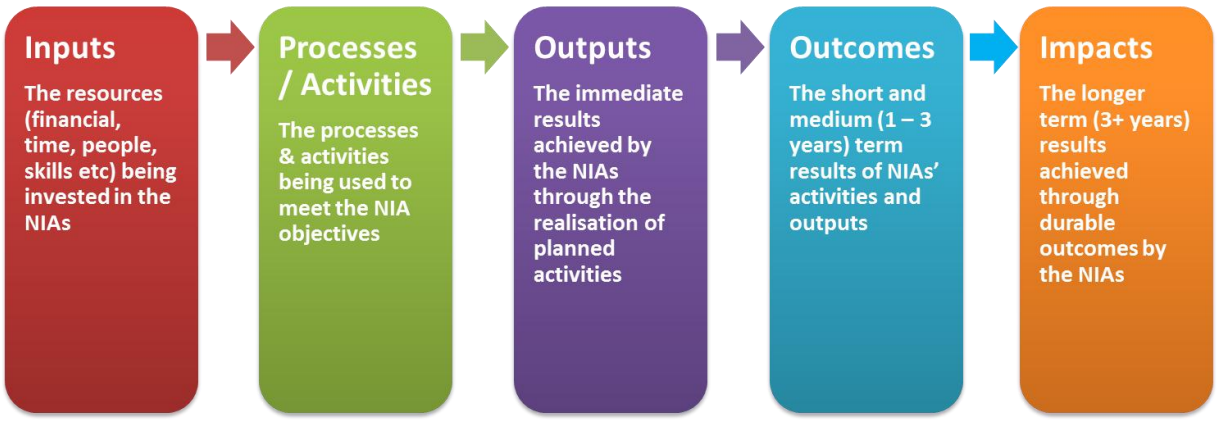
### 3.2.1. Overall approach

The overall approach adopted for the evaluation of the NIA initiative drew on guidance in the Magenta Book (HM Government, 2011b). A logic model[60] approach was used to provide the overall framework within which the evaluation was designed. The logic model (see Figure 3.3 and Appendix 2 for further explanation) was used to describe the relationship between the inputs, processes/activities, outputs, outcomes, and impacts of the NIA partnerships individually or aggregated. This provided the framework for understanding and systematically testing the assumed relationships between the individual and collective outcomes (both short term and longer term impacts) of the NIA partnerships with the inputs, activities and processes.

The approach adopted used a combination of process and impact evaluation. The evaluation sought to understand how the NIA partnerships delivered their objectives (the process aspect of the evaluation of inputs and processes / activities), as well as what they had delivered for biodiversity, ecosystem services and social and economic benefits and contributions to wellbeing (the impact aspect of the evaluation focusing on outputs, outcomes and impacts).

[60] A logic model seeks to understand the complexity of a policy intervention and the relationship between an intervention's inputs, activities, outputs, outcomes, and impacts.

**Figure 3.3: The Logic Model for the NIA evaluation**




The Magenta Book was used for guidance on potential methods to use as part of an evaluation, in particular for process and impact evaluations. This included methods for both data collection and analysis (see section 3.1.4). The analysis performed for quantitative data included aggregating data across NIA partnerships, calculating change over time, comparing NIA and national trends, as well as some qualitative methods (see Appendix 2 for further details).

The logic model guided the development of specific evaluation questions under each of the monitoring and evaluation themes (see sub-section 3.1.2), and also helped to identify the evidence required to answer the evaluation questions. These questions are presented at the start of each evaluation section (see Part III - sections 5, 6, 7 and 8) and in Appendix 2. The use of evaluation questions was applied here based on the description in the Magenta Book.

The evaluation questions related to biodiversity, ecosystem services, and social and economic benefits and contribution to wellbeing outcomes and impacts (see sections 6, 7 and 8) were developed at two levels of detail:

- Firstly, at the level of each sub-theme in the monitoring and evaluation framework a headline evaluation question was developed. These questions took the form of asking, overall, if the NIA partnerships had contributed to a change in each sub-theme. For example, for the sub-theme of cultural ecosystem services the overall evaluation question asks: *'to what extent have NIAs contributed to improved cultural services?*'
- Secondly, reflecting the specific indicators included in the monitoring and evaluation framework and the topics covered by each sub-theme, sub-questions were developed to enable a more detailed evaluation of the evidence. These considered both change within an NIA and the extent to which the NIA partnerships contributed to these changes. Taking the example of cultural ecosystem services, an example question asks: '*To what extent have NIA partnerships contributed to increasing the extent of land managed to maintain and / or enhance landscape character?'*

The outcome and impact evaluation questions show that for most outputs, outcomes, and impacts, the NIA partnership activities were likely to be only one mechanism potentially influencing change in their area. The questions seek to identify: to what extent has a factor changed and the extent to which the NIA partnership/s has contributed to any observed change?

The inputs and processes evaluation questions (see section 5) were developed to help understand the range of factors supporting and influencing the NIA partnerships' implementation: resources and expenditure; effective partnership working, planning and management; monitoring and evaluation; research and innovation; and the support of Natural England, Defra and other agencies. In the case of inputs and processes, evaluation sub-questions seek to explore in more detail these aspects, for example relating to partnership structures, management and planning processes and information / knowledge sharing and exchange.

Understanding the outcomes and impacts of the NIA partnerships is challenging at the end of three years of operation. This is partly due to other variables potentially influencing change and the challenges of establishing cause-effect and partly due to the limited time available to realise the desired outcomes and impacts of the NIAs. The evaluation at the end of the grant funded period has therefore had to focus on inputs, processes and outputs, with the outputs and impacts only reported where possible.

### *Understanding the baseline and counterfactual*

The baseline and counterfactual are important to evaluation as they describe the context within which the impact of the NIAs can be measured and evaluated. A counterfactual - i.e. in this case what would have happened if individual NIA partnerships or the initiative as a whole had not been established - is, as acknowledged by the Magenta Book, frequently a very challenging part of impact evaluation.

Research has been undertaken as part of the Phase 2 monitoring and evaluation project to test and help increase understanding of different approaches to assess the difference the NIA partnerships have made over and above what would have happened anyway (see section 9 and Appendix 2). This counterfactual work used three approaches:

- Approach 1 – Narrative approach:
  - Online survey of NIA partners
  - Semi-structured interviews with the 12 NIA partnership chairs
  - Semi-structure interviews with seven national level stakeholders
- Approach 2 – Temporal trajectory analysis
- Approach 3 – Spatial paired comparisons

A separate report, Annex 1, has been prepared on the details of the counterfactual work. This provides a commentary on the testing of the counterfactual using the three approaches. The findings of this work have been integrated into the evaluation reported in Parts III and IV.

The baseline provides information on the situation before the NIA partnerships started work. The indicators were designed to record a baseline using available data. The baseline year differs between indicators depending on data availability. The challenge for the evaluation has been to attribute change within an NIA to the NIA partnerships' activities as opposed to other factors or delivery mechanisms. Some indicators explicitly measure just the NIA partnerships' activities, whilst others are more contextual and record wider change in the NIA. The evaluation worked with the data available and where necessary highlighted any assumptions and uncertainties with the data used and findings drawn from it.

# Part II:
# Overview of NIAs' Progress and Achievements

# 4. Overview of NIA Partnerships' Progress and Achievements

## Overview of progress and achievements at the end of Year 3

***Creating more, bigger, better and less fragmented places for wildlife***

- NIA partnerships managed a total of **4,625ha to create or restore new areas of priority habitats**; and a total of **13,664ha to maintain or improve the condition of existing priority habitats**.
- The NIAs' management activities on existing priority habitat equated to **14.6% of the total extent of existing priority habitat[61] (93,533ha) within all NIAs being subject to new management actions** under the NIA initiative over the three years of the grant funded period.
- The NIA partnerships managed linear habitat such as hedgerows, rivers and riparian buffers, canals and wood margins. Over the three years, **10.5km of new boundary and linear priority habitat was restored or created, and 215km of existing boundary and linear habitat managed to maintain or improve its condition**.
- The NIA partnerships improved **data and knowledge of species status in their areas through species surveys,** such as water vole surveying (Dearne Valley and Meres and Mosses), breeding and wetland bird monitoring (Nene Valley) and butterfly surveys (Marlborough Downs and Morecambe Bay). These provided information to help design effective habitat management activities in NIAs, and contributed to wider understanding of species status.
- The NIA partnerships initiated **habitat management to meet the needs of species**, such as breeding wader and tern habitat enhancements (Humberhead Levels) and improving conditions for invertebrates (Greater Thames Marshes).
- Research undertaken by the NIA partnerships **improved understanding of and tested approaches to delivering and measuring habitat connectivity**.

***Enhancing the benefits that nature provides for people***

- The NIA partnerships worked to improve access to and enhance people's experiences of the natural environment. Five NIA partnerships reported that a total length of **51km of public rights of way and permissive paths were improved or created**, with **access improved to a further 254km**. One NIA (Humberhead Levels) reported 3,600 new visits to a nature reserve following works to improve access and facilities.
- All NIA partnerships designed and delivered activities with the explicit objective of providing education and learning benefits. In the three NIAs that reported on it, a total of **26,496 people participated in educational visits**[62].
- The NIA partnerships reported that a total of **47,159 days of volunteer time** was undertaken to support their activities. Volunteers were engaged in activities such as habitat improvements and species surveys. The majority of this time (41,544 days) involved volunteering activities considered likely to result in health and wellbeing benefits, including implementation work, site surveys and sampling.
- The NIA partnerships delivered actions specifically designed to **enhance ecosystem services**, for example, in the five NIAs that reported it a total of **28,229ha of land was managed with the aim of improving water quality**. By the end of Year 3 **the proportion of woodlands in active management increased by 5.5%** (compared to 4.8% nationally over the same period) across the

[61] Priority habitats were identified as being the most threatened and requiring conservation action under the UK Biodiversity Action Plan (UK BAP). In 2013, Natural England published a new priority habitats' inventory for England covering 24 priority habitats. Examples of priority habitats include lowland calcareous grassland and deciduous woodland.

[62] An educational visit is defined as any organised visit to an NIA site or centre (e.g. visitor centre) which had an explicit educational objective.

12 NIA partnerships. Many other NIA activities (e.g. enhancing or creating habitat) are likely to have enhanced ecosystem services.

***Working with local communities, land managers and businesses***

- **All the NIA partnerships engaged with their local communities** through activities such as: organising and participating in events; engaging local people as volunteers; reaching out to schools and community groups to provide education and hands-on learning opportunities; and encouraging community involvement in decision-making.

***Becoming places of innovation and inspiration***

- **NIA partnerships sought to inspire people** by: engaging people through public events; using nature for learning; connecting people with the local landscape through cultural and artistic interpretation (e.g. art, theatre, music and photography).
- **All the NIA partnerships engaged in activities that either contributed to research or were innovative**, with 11 of the 12 NIA partnerships having undertaken research with universities or research institutes.
- Outcomes of the NIA partnerships' work with universities included: research into the practical delivery of landscape scale conservation; assessments of ecosystem service values improvements to specific habitats and the wider value of services across an NIA; and monitoring in support of improved restoration techniques related to grasslands / meadows.

***Mobilising financial resources***

- NIA partnerships **mobilised a total added value (additional income) equivalent to £26.2 million in addition to their government grant funding** from Defra and Natural England over the three grant funded years, at a ratio of 3.49 (for each £1.00 of government grant an average of £3.49 was generated of which £2.03 was from non-public sources).

## 4.1 Introduction

This section presents an overview of the progress and achievements in the NIAs at the end of the grant funded period (April 2012 to March 2015). This section does not seek to evaluate the progress and achievements, rather it presents a summary of the available evidence on what the NIAs delivered under four main topics linked to their overall objectives:

- creating more, bigger, better and less fragmented places for wildlife;
- enhancing the benefits that nature provides for people;
- working with local communities, landowners and businesses; and
- becoming places of innovation and inspiration.

The detailed evaluation of the NIA partnerships is presented in Part III (sections 5 - 8). While the approach to the evaluation is discussed in section 3 and Appendix 2, it is important to put the description of the progress and achievements reported here within the following context:

- The NIA partnerships were all very different and had, as intended, locally specific objectives and work programmes (see sub-section 2.2). This means that comparative and aggregate reporting was not always appropriate or possible.
- Factors beyond the NIA partnerships' control influenced their ability to deliver actions, such as weather conditions or where delivery was partly reliant on other organisations.
- The NIA partnerships were not responsible for all activity in their areas, and it is not always possible to attribute change directly to the activity of an NIA partnership. In some cases contextual indicators were used to assess wider change in the NIAs. Work has been undertaken to help understand the difference that NIA partnerships have made compared

to what would have happened anyway, and this is summarised for each monitoring and evaluation theme in sections 5 - 8 and in section 9, with more detailed reporting in Annex 1.

- The work of the NIA partnerships resulted in a range of benefits, in addition to the main purposes of the programme. The monitoring and evaluation framework was not designed to capture all of these additional benefits so the progress and achievements reported may not represent the full scale and breadth of benefits.
- Many of the NIA partnerships' activities will result in impacts that will only be fully realised in the long-term. After three years, it is often only possible to monitor and report on the completion of actions to provide an indication of achievement and the direction of change, rather than being able to measure final outcomes or impacts. Appendix 2 provides more information on possible impact timeframes.
- All the NIA partnerships submitted data using the online reporting tool (see sub-section 3.1.3), and although these data were quality assured, there was some variation in the interpretation of the indicator protocols and the quality of data, for example differing interpretations of help 'in-kind', and the challenge of collecting data from a large number of partners.

This section utilises data and information recorded by each of the NIA partnerships in the online reporting tool, the NIA partnership quarterly Progress Reports and financial claim forms submitted to Natural England. It also uses national datasets provided by Natural England, and information collected from interviews with the NIA partnerships to explore research and innovation, social and economic wellbeing, and partnership working, and with NIA partnership chairs as part of the work to understand the difference the NIA partnerships have made.

The selected examples of NIA partnership activities presented in this section are illustrative rather than comprehensive. Any difference in the number of examples across NIA partnerships does not indicate that there was more, or less, activity or ambition in different NIAs.

Further details on the individual NIA partnerships' activities are included in Annex 2: *Nature Improvement Areas 2012-15 - Making Space for Nature on a Landscape Scale*. This is a summary report prepared by the NIAs themselves at the end of the three year grant funded period.

## 4.2 More, bigger, better and less fragmented places for wildlife

### 4.2.1. More, bigger and better places for wildlife

The habitat actions reported by NIA partnerships at the end of Year 3[63] include:

- A total of **13,664ha of existing priority habitat has been managed to maintain or improve its condition**[64].
- A total of **4,625ha[65] managed to restore or create new priority habitats**[66].
- Over the three grant funded years, **14.6% of the total extent of existing priority habitat within all NIAs was subject to new management actions by NIA partners**.

Reported actions on boundary and linear priority habitats[67], included:

- Actions to **maintain or improve the condition of 215km of existing boundary and linear priority habitat**.
- Actions to **restore or create 10.5km of new boundary and linear habitat**.

[63] Note: it was not possible to determine from the online reporting what proportion of actions underway or complete may have started before the NIA grant funding period.
[64] The total area of the NIAs is 513,144ha, so this represents approximately 2.7% of total land area.
[65] The amount of new priority habitat restored or created declined in Year 3 (from 7,451ha in Year 2) because some of this habitat becomes reclassified as existing priority habitat being managed to maintain/improve its condition (once it has been restored/created).
[66] This represents approximately 0.9% of total land area in the NIAs.
[67] These includes hedgerows, rivers and riparian buffers, canals and wood margins

Five NIA partnerships reported on site based actions[68] in addition to area based actions, with a total of 78 sites with actions completed or underway at the end of Year 3.

Box 4.1 presents selected examples of NIA partnership activities to create, restore and enhance habitats. Note that many of these activities delivered multi-functional benefits, in addition to the direct benefits of habitat creation, restoration and enhancement. For example, benefits can include: improved habitat connectivity; development and enhancement of recreational corridors; development of open space; and the enhancement of ecosystem services.

**Box 4.1: Selected examples of activities to create, restore and enhance habitats**

- **Restoration of new and/or improvement of existing lowland calcareous grassland across five focal areas** (over a total area of 1,773ha), with re-establishment of diverse grassland species (South Downs).
- **Creation of a network of new species-rich grassland sites** through an appropriate management regime and re-introduction of key species. A total of **40 new meadows were created, with a similar number of restoration projects** (Birmingham and Black Country). The work was monitored by a PhD student from University of Wolverhampton.

*Meadow creation, Birmingham and Black Country. Photo credit: Simon Atkinson*

- **Restoration of 400ha of lowland raised mire** including direct scrub management on 30ha of lowland raised mire (Humberhead Levels).
- An updated **grazing management plan** was put in place in Meres and Mosses and will be under regular review. 16 sites saw practical habitat improvements through tree removal, habitat restoration (fen, reedbed, and lowland heath), meadow grazing, weed control and scrub and rhododendron clearance.
- A **saline lagoon and a wetland habitat complex were created** in Wild Purbeck with help from volunteers. A new trail and interpretation (e.g. visitor information boards) was designed.
- NIA partnerships were also involved in other activities to support habitat improvements and ensure appropriate long-term habitat management, such as holding **biodiversity and land management seminars for landowners** (Marlborough Downs), creating **networks of reserve managers and land advisers across partner organisations to better align planning** and practices (Humberhead Levels), and employing a dedicated **landowner adviser to work with land managers** to encourage habitat management through improved agricultural practices (Northern Devon).

**Source:** Online tool data entry and narrative, Year 3 quarterly Progress Reports and BARS Actions records.

### 4.2.2. Less fragmented places for wildlife

Activities to improve connectivity include the creation and restoration of new habitats and the maintenance and improvement of existing habitats within the landscape improving ecological connectivity (by creating habitat 'stepping stones'[69]), including boundary and linear habitats. The habitat activities reported in sub-section 4.2.1 have the potential to contribute to the creation of less fragmented habitats, even where this was not a specific objective. Efforts have also been made to enhance ecological networks, such as through re-wetting and raising water levels on lowland raised bogs (Humberhead Levels). Other activities supported functional connectivity[70], such as restoration of traditional grazing marshes (Greater Thames Marshes).

The NIA partnerships engaged in research on habitat connectivity, often working jointly with research and academic institutions (see sub-section 4.5 for further details). This included work on: the role and nature of connectivity within the NIAs; how connectivity should be measured; and

[68] Site based actions were reported in relation to specific sites (e.g. creation of ponds), without an area of intervention provided.
[69] Patches of habitat located / created in sufficient proximity to create connectivity and to link larger areas of continuous habitat.
[70] Functional connectivity refers to the ability of species typical of a type of habitat being able to move within and between habitat patches in an area.

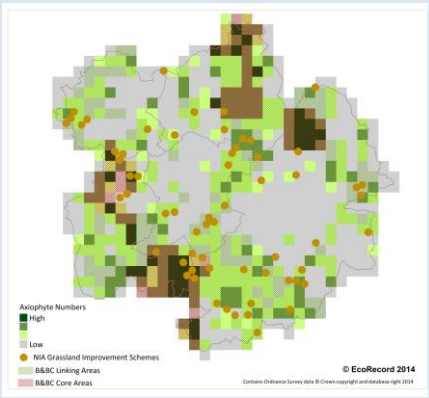
whether connectivity is always the appropriate conservation strategy. NIA partnership research and reporting added to the understanding of how to deliver improved connectivity and how to measure change[71].

A particular focus of activity was on exploring appropriate measures of ecological connectivity, including ones which can be aggregated across the different ecosystems and habitats within the NIAs. A new core indicator - *comparative indicator of habitat connectivity* - was developed and added to the monitoring and evaluation framework as part of the updates made in Year 2. The protocol suggests an approach, but also encouraged the NIA partnerships to develop their own locally appropriate approaches. It was used in a variety of different ways, consistent with the principle of NIA partnerships testing innovative approaches and learning. Each NIA partnership used their own locally determined weighting to report on contributions of their actions to connectivity. It is therefore not possible aggregate these data to quantify the collective contribution to connectivity across all NIAs.

In February 2015 an NIA best practice event focusing on connectivity was held[72] (hosted by Birmingham and Black Country NIA). The event sought to take stock of the NIA partnerships delivery in relation to connectivity, discuss the national and international context (e.g. latest research, available tools), and reflect on the diverse approaches to restoring ecological networks and measuring change in connectivity.

**Box 4.2: Selected examples of activities to improve connectivity**

- Creation and improvement to woodland rides (totalling 5.3km) to create corridors and links between open areas within woodlands. These works contributed to the **creation of a network of rides, glades and coppice blocks for mobile species** such as High Brown Fritillary, Pearl Bordered Fritillary, White Spot Sable Moth, Duke of Burgundy, and Marsh Tit (Morecambe Bay).
- **Creation and restoration of meadows based on mapping of 'core' and 'linking' areas** (Birmingham and Black Country).
- **Production** of 11 management plans over the three grant funded years for the **improved management of buffers and the development of a network of corridors and stepping stones** linking core sites. These management plans are in ongoing use (Meres and Mosses).
- Using **habitat opportunity mapping** as the basis for working with landowners and farmers to implement a coordinated delivery plan and habitat creation and restoration targets. Increased connectivity by bridging gaps through the creation or restoration of 148ha of habitat including six meadows from species poor grassland and four meadows created on arable land totalling 11ha (Nene Valley).




*Map of NIA grassland improvement schemes in Birmingham and Black Country and how these relate to existing core and linking areas (source EcoRecord, poster presented at NIA best practice event, February 2015: http://publications.naturalengland.org.uk/file/6305653733720064)*

**Source:** Online tool data entry and narrative, Year 3 quarterly Progress Reports and NIA website records.

### 4.2.3. Species

The NIA partnerships delivered activities to enhance the status[73] of focal[74] and widespread[75] species. Box 4.3 presents selected examples of activities reported by the NIA partnerships to enhance and protect species.

[71] For example: the Dearne Valley Ecological Network modelling with Forest Research which included mapping the ecological network (GIS) and the effects of changing land use on connectivity; Meres and Mosses published a paper on the practical application of the landscape scale conservation within the NIA with a focus on connectivity (Jones, 2015); and Wild Purbeck worked with a Landscape Permeability Tool to inform locations for restoration works and achieve increased habitat connectivity.

[72] More information on this event including the presentations and materials can be downloaded from the Natural England website: http://publications.naturalengland.org.uk/publication/4553703239450624

[73] Note that species status includes both abundance and distribution.

[74] Focal species in this context refers to species of high conservation status that were the focus of actions or sensitive to drivers of change that were a specific concern within an NIA.

**Box 4.3: Selected examples of activities to enhance and protect species**

- Greater Thames Marshes in partnership with BugLife and University of East London completed **work to directly improve 96ha of land for Thames Terrace invertebrate flagship species at ten sites in the NIA**. A legacy of specialist equipment, monitoring and community interest has been left. 425ha of freshwater grazing marsh was also restored, to help create habitat for water voles, redshank, lapwing, brown hare and scarce emerald damselfly.
- Habitat **restoration and enhancement to benefit priority specie**s such as bittern, pearl-bordered and high brown fritillaries, breeding waders, calcareous grassland flora, woodland bird assemblage, eels and salmonids (Morecambe Bay).
- Extensive scrub clearance on a 53ha site to provide **bird nesting opportunities and improve habitat for plants to support Adonis Blue and Duke of Burgundy butterfly populations**. A 30ha area of chalk grassland was broadcast with wildflower seed after being sheep grazed in early spring to control ragwort (South Downs).
- **River restoration targeted at fish and invertebrate populations**: 4km of river was enhanced, including action relating to improved weir design to reduce impact on species movements (Nene Valley).
- NIA **action plan to help protect the Freshwater Pearl Mussel** with restoration of channels and control of nutrients and sediments through Catchment Sensitive Farming programme and landowner advisory visits (Northern Devon).

**Source:** Online tool data entry and narrative, Year 3 quarterly Progress Reports and NIA website records.

Nine NIA partnerships[76] reported on the status of focal species and four NIA partnerships[77] on widespread species, with 95 focal species and 83 widespread species recorded[78] [79]. This showed the change in status (decreasing, stable, increasing, unknown) of local populations of focal and widespread species from baseline (start of NIA activity) to the end of Year 3. Within the nine NIA partnerships that reported on focal species[80]:

- The status of 55% of focal species was reported to be 'increasing' at the end of Year 3, compared with 14% at baseline. This observed increase is likely to reflect a number of factors (see sub-section 6.3), and in particular the change in data availability due to NIA led surveys: the percentage of species with known status rose from 48% to 70% between baseline and the end of Year 3.
- The percentage of focal species with a 'decreasing' status fell from 22% at baseline to 12% in Year 3, and the percentage reported as having an 'unknown' status reduced from 52% at baseline to 30% in Year 2.
- The percentage of focal species with a 'stable' status decreased from 13% at baseline to 4% in Year 3. This decline in the percentage recorded as 'stable' is probably because a number of 'stable' species in Year 1 are now considered 'increasing'.

[75] Widespread species refers to species defined as such and monitored through the relevant English Biodiversity 2020 indicators (Defra, 2014)

[76] Birmingham and Black Country; Dearne Valley; Humberhead Levels; Meres and Mosses; Morecambe Bay; Nene Valley; Northern Devon; South Downs; Wild Purbeck

[77] Humberhead Levels; Marlborough Downs; Meres and Mosses; Dark Peak.

[78] The focal and widespread species reporting recognises that it is not possible to fully attribute change in status over the life of an NIA partnership directly to NIA partnership activity. Changes in status may be subject to many other influences and to lags and external factors outside the influence of the NIA partnership, such as weather, disease, recruitment, dispersal or predation. The monitoring and recording by NIA partnerships offers a picture of the status within each area. NIA partnership survey data was typically fed to Record Centres or to the NBN (National Biodiversity Network) directly and represents a contribution to an improved information base from which to assess change.

[79] As an illustrative example, one NIA (Humberhead Levels) considered 13 widespread species (Teal, Mute Swan, Little Egret, Snipe, Curlew, Redshank, Sedge Warbler, Reed Warbler, Cetti's Warbler, Kingfisher, Grey Heron, Oystercatcher and Sand Martin) and nine focal species (Bearded Tit, Crane, Marsh Harrier, Bittern, Nightjar, Hairy Canary Fly, Mire Pill Beetle, Thorne Pin-Palp Beetle, and Water Vole)

[80] Note that there is a risk of survey bias in relation to surveying species status. From the available data it is not possible to distinguish between real changes in species status / numbers as opposed to increased survey effort where there is an incomplete historical record.

Across the four NIA partnerships that reported on widespread species:

- The status of 27% of widespread species was reported to be 'increasing' at the end of Year 3 compared to 17% at baseline (2012). The proportion with 'increasing' status at the end of Year 1 fell to 1%, which is likely to reflect the more accurate picture of widespread species' status due to NIA partnership survey activities.
- The percentage of widespread species with a reported status of 'unknown' increased from 27% at baseline to 41% at the end of Year 3 (decreasing from 78% in Year 2). The initial increase in species with 'unknown' status could reflect the introduction of surveying for species previously not surveyed in the NIAs, i.e. the baseline reflects national or historic status records but local status may have been unknown. The subsequent decrease in the species with unknown status between Year 2 and 3 supports this assumption. Financial claims made by NIA partnerships to Natural England also indicated an increase in survey effort (see sub-section 5.2.2).
- The percentage of widespread species with status reported as 'decreasing' declined from a baseline of 24% to 22% at the end of Year 3, and the percentage of 'stable' widespread species reduced from 34% at the baseline to 11% at the end of Year 3.

### 4.2.4. Geology and geodiversity

Geology and geodiversity are fundamental aspects of the landscape. Nine NIAs explicitly considered the geology and geodiversity of their areas in establishing project objectives and planning their activities.

Birmingham and Black Country NIA had an objective focussed on linking geodiversity and biodiversity, which aimed to target activities with geodiversity benefits, where there was also a demonstrable associated biodiversity gain. This included work to clear vegetation from geological features on 10 sites, with support from (and providing training to) volunteers. The vegetation clearance work improved the value of some site as an educational resource. Biodiversity gains were achieved by restoring habitat for specialised plant and invertebrate species.

*Rock exposure after scrub clearance on Rowley Hills, Birmingham and Black Country (source Wildlife Trust for Birmingham and Black Country)*

Humberhead Levels considered the geodiversity value of the area in developing their objectives, and worked with the local Geological Records Centre to help monitor landscape scale delivery. Marlborough Downs contains SSSIs designated due to the importance of geological features, and the NIA planned interventions to protect and enhance these features. Six other NIAs[81] considered specific local geological features and geodiversity in their project planning (reflected in their Business Plans).

## 4.3 Enhancing the benefits that nature provides for people

This sub-section considers the NIA partnerships' progress and achievements in relation to the benefits that nature provides for people. Ecosystem services, by definition, provide many benefits to human health and wellbeing, usually categorised as cultural, supporting, provisioning and regulating ecosystem services. The NIA partnerships' contribution to the provision of these services were a result of both activities specifically intended to achieve these benefits and due to other activities, such as encouraging volunteering in activities related to habitat improvements. Reflecting

[81] Dark Peak, Morecambe Bay, Nene Valley, Northern Devon, South Downs, Wild Purbeck

the integrated approach, all NIA activities related to enhancing or creating habitats or encouraging local people to engage with the natural environment, will have enhanced ecosystem services.

The benefits reported here include: health; education and learning; symbolic, cultural and aesthetic benefits; increasing supporting, regulating and provisioning ecosystem services, and the contributions to the local economy.

### 4.3.1. Health and wellbeing

In addition to health benefits from ecosystem services (e.g. through possible improvements to water or air quality resulting from habitat changes), encouraging volunteering is one way the NIA partnerships delivered potential health benefits, including[82]: aerobic exercise; improved respiratory and cardiovascular health; reduced stress; sense of achievement; reduced social isolation; relaxation and recovery. See Figure 4.1.

Over the three grant funded years a total of 47,159 days[83] of volunteer time was reported by the NIA partnerships[84,85]. As a comparison, the New Forest reported that in 2014/15 over 900 volunteering days were recorded from people taking part in their work that year. Whilst the NIAs covered approximately 9 times the area of the New Forest, the average number of NIA volunteering days per year was 17.5 times the number in the New Forest. Within this total 35,336 days was on 'implementation' work, which included physical land management and improvement activities, and a further 6,208 days was on 'data, survey and mapping' work including data collection, mapping, site survey and sampling. These types of work engaged volunteers in physical activity, working with other people and learning new skills and knowledge and were therefore considered likely to have had health and wellbeing benefits (CEP, 2014c). Box 4.4 presents selected examples of specific volunteering activities reported by the NIA partnerships.

The NIA partnerships also undertook activities intended to deliver mental health benefits, for example Greater Thames Marshes worked with local artists and participants with mental health challenges to explore the artistic potential of a park in the NIA, see Box 4.5.

**Figure 4.1: Volunteers, activities and likely health benefits**[86]

**Physical works** – scrub clearance, habitat management, hedge-laying and coppicing.

**Undertaking ecological surveys** – on-going recording, supporting national surveys, NIA specific (e.g. habitat, species) monitoring.

[82] Based on the outcomes of the literature review on the social and economic benefits associated with natural environment initiatives and their contribution to wellbeing (CEP, 2014c).
[83] Volunteer time was recorded by NIA partnerships as number of hours volunteering under four categories: general unskilled labour; skilled trained labour; specialist services; and professional. The number of days was calculated by summing the hours reported and dividing by 7 (assuming a 7 hour working day).
[84] Volunteering data as compiled by Natural England based on financial claim forms submitted by NIA partnerships.
[85] Note it was not always apparent from NIA partnership reporting if volunteering was a direct result of NIA funding / coordination, or if these volunteering activities were occurring anyway within the NIA but contributed to NIA objectives.
[86] Based on the outcomes of the literature review on the social and economic benefits associated with natural environment initiatives and their contribution to wellbeing (CEP, 2014c).

| | |
|---|---|
| Benefits:<br>• Improved respiratory health<br>• Aerobic exercise and improved cardiovascular health<br>• Reduced stress hormones | Benefits:<br>• Sense of achievement<br>• Recovery and relaxation<br>• Reduced social isolation and friendship |

**Photo credits:** Simon Atkinson (Birmingham and Black Country NIA) and Tania Crockett (Morecambe Bay NIA).

### Box 4.4: Selected examples of activities related to volunteering

**Habitat improvement**

- Enhancing and restoring priority woodland habitats involved volunteers working at seven key sites with **woodland work parties**. (Morecambe Bay).
- Engagement of **volunteers to assist with site preparation for the introduction/ establishment of the Ladybird spider** (Wild Purbeck).
- A local orchard tree **planting event involved more than 44 volunteers, adults and children**. Participants planted their own plum trees to provide food and habitat continuity for the Noble Chafer beetle's larva. This beetle is a red data list beetle and only found breeding in this orchard in Kent. (Greater Thames Marshes).

*Participants attending a tree planting event at Iwade Orchard. Photo credit: Pippa Palmer*

- Meres and Mosses involved 283 volunteers carrying out 1,155 days of voluntary work, including undertaking **practical improvement works** on nine sites, led by community groups.

**Surveying and monitoring**

- **Four volunteer training days contributing to delivery of thinning, planting and sowing**. Also **trained volunteers in woodland management techniques** (tree felling, coppicing, snedding and dead-hedging). Five community volunteer days delivering planting, seeding and vegetation clearance and one corporate volunteering day including scrub clearance, trench digging and litter picking. 22 volunteer workdays held where volunteers were involved in thinning, seeding, coppicing, felling and planting. (Birmingham and Black Country).

**Training**

- Presentation and workshop at Barnsley Naturalist Society to provide information required to survey for **water voles** with the ambition to engage some of its members in voluntary work (Dearne Valley).
- **Butterfly monitoring** across 11 sites collected data to track the impact of NIA management work. (Morecambe Bay).
- **Habitat survey and condition assessment training** increased local survey skills and will help enhance the future evidence base (Humberhead Levels).
- Training courses for volunteers on **freshwater sampling** (Northern Devon).

**Source:** NIA Year 3 quarterly Progress Reports and Year 2 summary reports

### Box 4.5: Greater Thames Marshes – *Community engagement: art and mental health activities*

A programme of workshops was arranged by the Greater Thames Marshes NIA partnership. These workshops were run by two locally based organisations Rethink Recovery and Own Arts. The organisations assist people in their management and recovery with a broad range of mental health issues by arranging sessions where participants work with local artists to explore their local environment and create 'land art' (art based on materials found in the environment).

The participants in this project were chosen because they have a range of mental health issues. Having worked with the artists and spent time walking around a site in the NIA, the feedback was positive for example:

> *"…the fact I haven't had a panic attack today is wonderful. Today I didn't have any worry about meeting here, no anxiety at all. Literally I didn't feel anxiety today. [I have a] all natural sense of freedom.*

*Normally [I] have trouble breathing, [today I just] just have a little tightness*" and "*being outside in the fresh air, doing art is good for me*".

It was reported that after the experience a participant who suffered from Post-Traumatic Stress felt able to go outside on her own for the first time in months.

There were also physical health benefits from participants spending substantial amount of time being active in the park.

*(Photo credits: Jo Sampson)*

**Source:** NIA social and economic wellbeing case studies developed by NIA partnerships in Year 3.

In addition, the NIA partnerships improved access to and enhanced people's experiences of the natural environment. For example, five NIA partnerships reported that a total length of 51km of public rights of way and permissive paths were created or improved, with access improved to a further 254km[87]. Although evidence on changes in visitor numbers was not available across these five NIA partnerships, one NIA (Humberhead Levels) reported 3,600 new visits to a nature reserve following works to improve access and facilities. Box 4.6 presents examples of NIA partnership activities to improve access to and the experience of the natural environment.

### Box 4.6: Selected examples of activities to improve access to and experience of the natural environment

- Bridleway restoration including improvements to an eroded path (over the three grant funded years improvements were made to 8.4km of eroded footpaths, byways and bridleways) route improvements and measures taken to discourage off-roaders from damaging heathland. **Improvements to bridleway infrastructure for better connectivity of access** across the moors (Dark Peak).
- Over 100 volunteers were engaged in habitat creation works, **installation of fencing, footpaths and seating and the development of interpretation materials**. Over 3,600 new visits were reported to this nature reserve as a result of the project (Humberhead Levels).
- Following a visitor survey and research about nature tourism in Morecambe Bay area, **a 'Sense of place toolkit'[88], ten visitor nature itineraries, improvements for cycle tourism and other bespoke resources were produced** for businesses and visitors.
- A Community Panel was established **and dialogue has led to a site action plan to improve visitor facilities and experiences** in Nene Valley NIA. Additional interviews were conducted with visitors about their views and ideas for the site and those were also incorporated into the site action plan.
- Upgrading of existing public rights of ways and furniture, **identifying a suite of high quality access routes (footpaths, bridleways and cycle paths) and undertaking improvements works** to enable people to enjoy the Downs to the full and see some of the things the NIA partnership did to support local wildlife (Marlborough Downs).
- **Access improvements to an underused local open space**, resulting in the site being accessible and usable. A family event was held on the site for local people and the site was also used for an alternative education activity with young people with behavioural issues or learning disabilities (Birmingham and Black Country).
- A **Visitor Management Strategy** was produced based on 676 completed visitor questionnaires with around 80% of these capturing the routes of visits. Locations for delivery of suitable recreation opportunities are to be identified (Wild Purbeck).

**Source:** NIA Year 3 quarterly Progress Reports and Year 2 summary reports

[87] These figures are based on reporting through the online tool by Dark Peak, Dearne Valley, Meres and Mosses, Marlborough Downs and Humberhead Levels.

[88] See: http://www.morecambebaynature.org.uk/sop-introduction

### 4.3.2. Education and learning

All NIA partnerships designed and delivered activities with the explicit objective of providing education and learning benefits for children and adults. The benefits of these activities include better understanding of the environment, using the environment as a forum for enhanced learning about other subjects, and accrediting individuals with formal qualifications. This was in addition to other NIA partnership activities relating to biodiversity and volunteering which often had an educational or learning component, such as training people in survey techniques.

Five NIA partnerships[89] reported against the optional indicator *number of educational visits*[90]. These data show that the number of educational visits varied between NIAs and that by the end of Year 3, a total of 29,496 people had participated in educational visits. As a comparison, in the New Forest around 10,000 students a year receive free learning sessions (New Forest National Park Authority, 2015)[91]. Year 2 had the highest number with 12,822 participants, Year 3 had 9,720 and Year 1 had 6,954. Other evidence[92] indicates that all the NIA partnerships engaged with schools and further education colleges. The majority of these activities involved schools visiting NIA sites and visitor centres to learn about the environment, to undertake cross-curriculum activities (such as art) or to support volunteering via surveys and practical activities (e.g. scrub clearance).

An innovative example of working with schools is the Eels in Schools project[93], in Dearne Valley and Humberhead Levels NIAs. This project, delivered in partnership with the Don Catchment Rivers Trust, installed eel tanks into the schools, with around 100 eels for a period of six weeks. Children had the opportunity to learn about the life-cycle of eels, and at the end of the six weeks the children personally released the elvers into a suitable local habitat.

The NIA partnerships also visited schools to talk about their work and to encourage school groups to get involved. For example, Birmingham and Black Country and Wild Purbeck worked with schools to look at possibilities for improving on-site biodiversity linked to educational outcomes, and Nene Valley attended the Royal Agricultural College to talk about the work and objectives of the NIA partnership and to teach the students about the concepts behind the NIA approach.

The provision of adult training, particularly for teachers, such as a grassland flower identification course (in Morecambe Bay) or the development of primary school curriculum materials related to ecosystem services (in Northern Devon) means that educational and learning benefits should be sustained beyond the NIA grant funding period.

The NIA partnerships also worked with volunteers, contractors and students to provide training and / or capacity building. Much of this work related to developing the surveying and practical land management skills of those involved, and were designed to provide participants with new skills and confidence whilst also supporting the NIA partnerships' work.

### 4.3.3. Symbolic, spiritual and aesthetic benefits

Much of the work of the NIA partnerships contributed to symbolic, spiritual, and aesthetic benefits, as well as wider cultural ecosystem services. Some partnerships developed projects and initiatives explicitly seeking to enhance these benefits[94]. Box 4.7 presents a case study: *Down to Earth* in Meres and Mosses NIA. Other examples include:

[89] Dearne Valley, Morecambe Bay, Meres and Mosses, North Devon and Humberhead Levels

[90] Educational visits were calculated as being the number of participants in educational visits organised by the NIA partnership. An educational visit is defined as any organised visit to an NIA site or centre (e.g. visitor centre) which had an explicit educational objective. They also included visits to schools by NIA partner staff with an educational objective.

[91] http://www.newforestnpa.gov.uk/info/20016/our_work/54/annual_review

[92] I.e. the NIA quarterly Progress Reports and interviews with NIAs in May – June 2014.

[93] See: http://www.dcrt.org.uk/educational-activities/eels-in-the-classroom

[94] Note that progress and achievements related to cultural ecosystem services may overlap with other benefits such as those described under health and wellbeing and education and learning, as well as uniting communities. For example, improving access to and enhancing people's experience of the natural environment will have health and wellbeing benefits and also represent an enhancement of cultural ecosystem services.

- Commissioning of an **art project** in Hadleigh Country Park (Greater Thames Marshes) by the NIA partnership (with the Arts Council). This project enhanced individuals' understanding of the environment along this section of the Essex coast and is summarised in Box 4.7. A **'Big Picture photography competition'** was also organised in Greater Thames Marshes, with the aim of generating photographs that 'celebrate our magnificently diverse landscape'.
- Work with local community groups in Northern Devon to **identify and create community wildlife spaces**, with the intention that these groups take responsibility for the management of these spaces with Local Nature Reserve / Community Woodland designation.
- **Walk & Talk events and workshops** in Marlborough Downs **to engage, enthuse and educate local people in the nature and landscape of the downs**. These events were organised regularly throughout the three grant funded years, and continued after the end of the grant funded period, with events held in August (pollinator workshop) and September 2015 (heritage walk).
- The **Hidden Gems and 'Discover your Dearne Valley' projects** involved engaging local communities through a series of walks and explorations around the local landscape, supported by traditional stories and using local knowledge for discussions around past uses of the land.

**Box 4.7: Examples of projects delivering spiritual, cultural and aesthetic benefits**

**Meres and Mosses NIA - *Views in a Landscape***

The NIA undertook a video exploration of the NIA landscapes. The following video - Views in a Landscape[95] - is a short film that uses drone footage, videos from events, Google Earth and photographs to introduce the concept of the NIA, its work and outcomes. The video was funded in part by Sciencewise, Dialogue by Design and Natural England as part of the NIA Sciencewise public dialogue project[96] (Natural England, 2015). The video aimed to raise the profile, and appreciation of, the landscape and work of the NIA partnership and what it means for local communities and landowners.

*Photo credit: Tom and Miche Middleton*

The use of Google Earth in this video was based on public engagement the NIA partnership did as part of a NIA Sciencewise public dialogue project. The NIA partnership and Sciencewise facilitator worked with eight small groups to explore the landscape and identify areas that were considered especially important to them. The groups also used the software to consider management options at the landscape scale[97].

**Greater Thames Marshes - *The Reveal***

The project aimed to develop a site-specific, environmental artwork that would improve access to and communication about biodiversity within the unique landscape of Hadleigh Country Park. The Public Art service at Place Services developed a project brief and promoted a public art opportunity.

The final art project was a camera obscura called The Reveal. The idea for The Reveal evolved out of a process of research and engagement with the site and through working with local groups and the Park Rangers at Hadleigh Country Park.

On the artists' first visit to Hadleigh the magnificent views were revealed to them. The high vantage point overlooking the Thames estuary makes Sandpit Hill an ideal observation post. The artist's idea, to create an

[95] Video is available here: https://vimeo.com/118469134
[96] See: http://www.sciencewise-erc.org.uk/cms/nature-improvement-areas/
[97] See page 30 of this report: http://www.sciencewise-erc.org.uk/cms/assets/Uploads/FinalNIAOverarchingreportMarch2015.pdf

underground camera obscura evolved from their observations and the desire to harness this view and reveal it in an unexpected way.

*The Reveal being installed. Photo credit: Jo Sampson*

In September 2013 a NIA best practice event was held focussing on ecosystem services and the ecosystems approach[98] (hosted by South Downs NIA). The event provided an opportunity for NIA partnerships to share experience and learning, and included presentations and discussion related to delivering cultural ecosystem services in NIAs and challenges in relation to aesthetic and spiritual experiences.

### 4.3.4. Supporting ecosystem services

The main supporting ecosystem services reported on by NIA partnerships related to pollinators. Two NIA partnerships provided specific information on their achievements in supporting pollinators. Some habitat improvements (reported in sub-sections 4.2 and 6.2) will also have been of benefit to pollinators. Box 4.8 presents examples of NIA partnership activities and achievements in this area.

**Box 4.8: Selected examples of activities to enhance supporting ecosystem services**

- Birmingham and Black Country reported on the **area of habitat identified (by the partnership) as being particularly important for pollinators**, and recorded an increase of 164ha from baseline (3,592ha) to the end of Year 3 (3,756ha).
- To support bumble bees, Dark Peak sought to enhance pollen and nectar availability through the introduction of a **"bumble bee" mix of wild seed**, using a seed-hopper to apply seed over a wide area (specific area not indicated). This comprised a mix of red clover, birds- foot trefoil, musk mallow and black knapweed. Purchase of a seed hopper has enabled multiple applications of seed over a wide area.
- A University of Northampton **PhD student researched 'Landscape scale habitat requirements of insect pollinators' in the Nene Valley** to determine possible relationships between local site factors, landscape factors and the diversity and abundance of pollinators. The aim was to produce a series of habitat suitability models for different insect groups that can be used for planning and conservation purposes.

**Source:** NIA Year 3 quarterly Progress Reports and Year 2 summary reports

### 4.3.5. Regulating ecosystem services

NIA partnership progress and achievements in relation to regulating ecosystem services included: managing habitat for improved water quality; projects to increase carbon sequestration in NIAs; and activities seeking to enhance flood prevention. Box 4.9 presents examples of NIA partnerships' activities to enhance regulating services.

[98] More information and presentations can be found at: http://publications.naturalengland.org.uk/publication/4553703239450624

**Box 4.9: Selected examples of activities to enhance regulating ecosystem services**

- Five NIA partnerships (Dark Peak, Nene Valley, Northern Devon, South Downs and Wild Purbeck) recorded the **area of habitat managed with the aim of improving water quality**, with a total of 28,229ha[99] (123% increase over baseline) reported to end of Year 3. This included: improving blanket bog conditions (Dark Peak); land managed to improve water quality (Nene Valley); land managed with soil aerators (Northern Devon); and land considered as having a 'significant' contribution to water quality (South Downs).

*Creating a two-stage channel for improved flood management, September 2013 (Nene Valley). Photo credit: Simon Whitton*

- Three NIA partnerships reported on **watercourse management**: Birmingham and Black Country had managed 5.5km of watercourse to improve its condition by the end of Year 3; Dark Peak recorded 4.5km of gullies blocked (to reduce sediment loss); and Nene Valley reported on a range of improvement works with benefits for invertebrates, water quality and flood management.
- Dearne Valley reported on **carbon storage and sequestration** associated with tree whip planting. They calculated that resultant woodland creation will lead to sequestration of approximately 4,179t$CO_2$e[100] over 100 years based on planting to the end of Year 3.
- Morecambe Bay reported on tonnes of **carbon stored and sequestered** per unit area of land managed for carbon benefits. Raised bog restoration work and woodland management activity was reported to have secured carbon storage and sequestration of 3,073t$CO_2$e[101] per year (realised after ten years in relation to raised bog).
- **Restoration of floodplain habitat through direct land management** resulted in creation of open water and lowland wet grassland habitat and flood storage potential, re-meandering a channel to improve flows and habitat diversity, reduced inputs of industrial pollution, a contribution to a feasibility and flood modelling study, and creation of a 32 ha conservation site (Dearne Valley).

**Source:** NIA Year 3 quarterly Progress Reports and Year 2 summary reports

### 4.3.6. Provisioning ecosystem services

Existing land and water bodies within the NIAs already generate a large amount of provisioning ecosystem services, for example through food production from agriculture, raw materials from woodlands and the fresh water provided by rivers and aquifers. These services are being generated regardless of NIA partnership activities. However, NIA partnerships also sought to protect and enhance provisioning services, for example: by encouraging sustainable agricultural production; managing woodlands sustainably; and generating opportunities from natural products, such as woodland products[102].

Box 4.10 presents examples of NIA partnership activities and achievements to enhance provisioning ecosystem services. Further examples of how NIA partnerships worked with land managers are included in sub-section 4.4.3.

[99] Note this figure excludes Year 3 data for Nene Valley as these were not reported in the online tool.

[100] t$CO_2$e means tonnes of $CO_2$ equivalents. Based on the average $CO_2$ emissions per household (excluding transport) in the UK was 5.6 tonnes in 2010 (Palmer & Cooper, 2012). Thus a calculated saving of the equivalent of 4,179 tonnes of $CO_2$ equates to the average annual emissions of 746 households.

[101] Morecambe Bay NIA partnership reported that this related to 93ha LRB (Lowland Raised Bog) restoration (allowing for 1ha of Ireland Moss) (231.6t $CO_2$/yr. rising to 614t $CO_2$/yr. after 10 years) and 292ha of woodland under woodfuel management (1,898t $CO_2$/yr. or 23,360t $CO_2$/ coppice cycle). Note metric should be saving per year 10 years after restoration. Based on the average annual $CO_2$ emissions per household (2010) of 5.6 tonnes (excluding transport) the total of 3,073 t$CO_2$e equates to the average annual emissions of 548 households.

[102] Note that there are potential overlaps between enhancing provisioning ecosystem services with some of the other topics considered under the benefits that nature provides, notably economic benefits (see section 4.3.7).

**Box 4.10: Selected examples of activities to enhance provisioning ecosystem services**

- **NIA partnerships worked with and advised land managers on sustainable land management and to assist applications for environmental stewardship funding**. For example there was considerable engagement with land managers in the Nene Valley to implement sustainable land management practices. Advisory work resulted in the preparation of 13 Whole Farm Plans and approval of 13 Higher Level Stewardship (HLS) applications.
- In Morecambe Bay, **advice on wood fuel schemes was given to more than 100 woodland owners** throughout the three years. **Woodland management schemes were delivered** at 15 sites. Three community training schemes were delivered with demonstration events on logging machinery, milling timber posts, stacking logs, horse drawn extraction, coppicing techniques and alpine tractor extraction. In addition, 14 **community woodfuel groups were established** to develop the woodfuel chain.
- NIA partnerships **developed marketable, naturally sourced products**, such as: charcoal (sold to help fund habitat creation/restoration works), the prototype of the UKs first briquettes developed from harvested reed (both projects Humberhead Levels); and the sale of local venison in conjunction with deer management (Wild Purbeck). Investigations into producing chipped material from woody arisings resulting from heathland management found that enough energy could be produced to heat around 630 houses (Wild Purbeck).

**Source:** NIA Year 3 quarterly Progress Reports and Year 2 summary reports

### 4.3.7. Economic benefits

Based on NIA partnership reporting, at least six[103] NIA partnerships explicitly sought to deliver economic benefits in addition to implicit benefits such as from increased visitor numbers, employment opportunities. These NIA partnerships used two main approaches to deliver these benefits: supporting the production and exchange of natural products, particularly woodfuel; and place based marketing (i.e. promoting the NIA and the importance of the natural environment). Selected examples from two NIA partnerships are presented in Box 4.11 and Box 4.12.

NIA partnerships used the government grant funding they received to help mobilise additional resources, including a total added value equivalent to £26.2 million over the three grant funded years at a ratio of 3.49 (for each £1.00 of government grant an average of £3.49 was generated, of which £1.46 was from other public sources and £2.03 is from non-public sources). This added value includes cash contributions, as well as the financial value of in-kind contributions and volunteer time.

NIA partnerships also completed research to help understand and demonstrate the economic value of ecosystem services in their areas:

- A valuation of ecosystem services provided by Culm grassland in Northern Devon was part-funded by the NIA partnership and concluded that restoration and recreation work, some of which has been completed by Devon Wildlife Trust under the NIA project:

  *'… provides an excellent return on investment. Over the next ten years, Devon Wildlife Trust aims to restore at least 5,000 ha more Culm, which will more than double its water and carbon value to in excess of £20.5 million. The cost of this investment in Culm restoration and recreation is in the region of £2 million, giving more than a ten-fold return on investment'.* (Cowap *et al*, 2015, p4)

  Over the three grant funded years, the Northern Devon NIA implemented actions on more than 1,500ha of grassland, suggesting a potential of more than £6 million in water and carbon value.

- A study undertaken by Birmingham and Black Country NIA partnership sought to understand the value of ecosystem services provided by the natural environment in the NIA. The study estimated that the value of ecosystem services provided by habitats created through NIA activities had a capitalised value (the value at 2014 prices of ecosystem services over a time

[103] Birmingham and Black Country, North Devon, Morecambe Bay, Marlborough Downs, South Downs and Wild Purbeck.

period of 100 years) of approximately £2.19 million (Hölzinger, O., 2015). A specific cost for the habitat creation activities associated with this valuation was not considered in the study, however the NIA government grant paid to Birmingham and Black Country was approximately £600,000 and total expenditure (based on financial claim forms) on implementation[104] by the Birmingham and Black Country over the three grant funded years was £1.6 million.

**Box 4.11: Production and exchange of natural products**

- Wild Purbeck NIA reviewed **biomass arising from heathland management**. A commissioned report suggested that from good management and the application of appropriate technology, the Purbeck heathlands could yield 2,000MWh[105]; comparable with the annual output of a 1MW wind turbine, or six hectares of solar panels. There remain challenges as heathland biomass production is low grade, variable, and logistically expensive-to-harvest by-product.
- The Wild Purbeck also appointed a **Woodland Apprentice** who helped to deliver a project managed by one of the NIA partners (Dorset Wildlife Trust) as part of the NIA business plan. This coppicing work created workplace opportunities for the individual. The NIA partnership also supported practitioner training for A Level 4 BASIS Foundation Award in Agronomy.
- The **Morecambe Bay Woodfuel Project** was a NIA funded project which improved the extent of, and management of woodlands within the NIA. As part of this the NIA partnership sought to develop commercial and community capacity in the use of woodfuel products. The project was reported to have led to economic benefits, including:
    - Approximately 187ha of woodland being managed for woodfuel and biodiversity benefit, with a minimum of 11,000 tons of timber and firewood entering the local woodfuel market.
    - Work for 52 local woodland management contractors (often small businesses).
    - 12 community woodfuel groups developed and supported.
    - A directory of local business that provide woodfuel and/or wood management services.

**Source:** NIA Year 3 quarterly Progress Reports, summaries, case studies and interviews.

**Box 4.12: Destination Nene Valley**

- The NIA worked with their Local Enterprise Partnership (LEP) to promote 'destination Nene Valley'. This project aimed '*to better interpret Northamptonshire's sterling green visitor economy'* whilst raising the profile of the local area and improving access to the area's green spaces (Northamptonshire County Council, 2012).
- Partners of the LEP and NIA hired an external company to develop a business plan and governance model for the project which was phased over the three funded years of the NIA and beyond. The project has a website which hosts links to environmental activities and tourist resources, more information is available here http://nenevalley.net/ .
- The project included an annual Nene Valley Festival which is supported by NIA partners, local authorities and businesses.

**Source:** NIA Year 3 quarterly Progress Reports, summaries, case studies and interviews.

## 4.4 Uniting local communities, land managers and businesses

Examples of progress and achievements relating to collaborative working with local communities, land managers and businesses are explored in this section. These are grouped under the following topics: community engagement and empowerment; creating and strengthening social networks; and working with land managers. NIA partnerships also brought different types of organisation together, with businesses involved as partners in ten of the NIA partnerships (for example United Utilities in Dark Peak and Atkins in Birmingham and Black Country).

[104] Defined in Natural England financial reporting: land management activity/ improvement works including capital items.
[105] MWh = megawatt hours, or the equivalent of one million watts of energy generation per hour.

### 4.4.1. Community engagement and empowerment

All NIA partnerships engaged with their local communities through activities such as: organising and participating in events; engaging local people as volunteers; reaching out to schools and community groups to provide education and hands-on learning opportunities; and encouraging community involvement in decision-making. Some examples of community engagement include:

- In Humberhead Levels **volunteers were involved in the development process and delivery of infrastructure to improve access** and establish North Cave wetlands reserve[106] as an NIA gateway site. Community activities and volunteer recruitment were also undertaken aiming to increase community links to biodiversity sites and support for site management, heritage conservation and interpretation (including face-to-face and education).
- In Marlborough Downs eight **outreach events took place to encourage the local and wider community to become involved in rural, agricultural and conservation activities**. Activities varied from planting to bird watching walks and a willow weaving workshop.
- Meres and Mosses ran a 'Down to Earth' community project[107] with a total of 141 events completed with 8,042 participants, intended **to encourage and enable greater community involvement in landscape conservation and exploration**. Environmental education facilities at 2 key sites were also upgraded.
- **NIA partnerships used social media to engage with their local communities**. Birmingham and Black Country reported that social media including Twitter and Facebook was particularly successful in recruiting new volunteers to projects. Northern Devon produced a YouTube video in which local farmers discuss how the NIA is helping them manage their land in a more wildlife-friendly way[108]. Meres and Mosses reported on the value of their Twitter feed in engaging with a wide audience, with their 'followers' including: farmers, volunteers, specialist and other businesses, media contacts, partners and funders.

Box 4.13 presents two specific examples of community empowerment resulting from the NIA partnerships' activities.

**Box 4.13: Examples of community empowerment**

**Nene Valley – *Community Panel Public Dialogue Project***

This project, part funded by Sciencewise[109], sought to bring together members of the public to engage with the technical and scientific issues relating to the management of the Northampton Washlands.

The NIA partnership identified and worked with members of the public to create a 'Community Panel'. The individuals involved were chosen to represent a spread of interests relevant to the site, including: bird watchers; recreation enthusiasts; and dog walkers. Ensuring that the group was representative of the site's users and made up of members of the public was a priority for the NIA partnership.

The Panel talked with key stakeholders such as the RSPB, farmers, Natural England and Wildlife Trust to understand the disturbance issues experienced on the site.

The Panel developed a management plan for the site with the aim of ensuring that the range of existing users will all still be able to enjoy the site. Among other activities the Panel hopes to re-start a 'friends' group so that they can continue to work with the public to implement the management plan. NIA partners are working with them to create this.

**Birmingham and the Black Country – *Castle Vale Meadows***

The NIA partnership created new and restored old meadows across the NIA. One example was Castle Vale Meadows in Birmingham where over 5 hectares of new meadow were created on a capped landfill site which was once part of a Spitfire testing airfield. Here two separate meadows were created by adding green hay from two different SSSI donor sites. Much of the physical work was undertaken with volunteers.

[106] See: http://www.ywt.org.uk/reserves/north-cave-wetlands-nature-reserve
[107] See: http://www.themeresandmosses.co.uk/page/61/down-to-earth.htm
[108] See: https://www.youtube.com/watch?v=q2wMk1s4dyc
[109] See: http://www.sciencewise-erc.org.uk/cms/nature-improvement-areas/

The Community Environmental Trust used the project to bring local residents and community groups together to make improvements to their local green space by spreading the hay across the site. The site will continue to be managed with an annual cut and collect with support from volunteers.

**Source:** NIA social and economic case studies (see Annex 3)

### 4.4.2. Creating and strengthening social networks

The NIA partnerships helped to create and strengthen social networks by bringing groups together under common areas of interest and providing opportunities for people to volunteer and socialise while connecting with the natural environment. Examples of contributions to local social networks include:

- **The Hidden Gems project** in the Dearne Valley which brought together individuals from across the community to talk to farmers and local residents about the history and environment of the area.
- **Open Farm Sundays** (Marlborough Downs) hosted by local farmers and organised by the NIA Community & Outreach delivery group. One such event attracted almost 1,000 people, including stall holders, volunteers and members of the public.

### 4.4.3. Working with land managers

Farming groups (e.g. NFU and the Farming & Wildlife Advisory Group South West[110]) were formal partners in four NIAs, and one NIA was farmer-led (Marlborough Downs). This represented a different delivery model to other NIAs; for example a specific NIA delivery company was established and an agri-environment consultancy team was contracted to provide project management[111]. Land managers were involved in undertaken many activities across most NIAs, particularly activities related to sustainable agriculture.

Based on interviews with the NIA partnerships in May-June 2014 and with partnership chairs in January-February 2015, NIA partnerships advisory work with land managers was reported to have been a success. The NIA grant funding ensured the availability of farm or land management advisers to raise awareness of environmental practices, encourage joint-working and provide advice on funding opportunities.

During the interviews, the NIA partnership chairs remarked that there were a *'vast number of farm visits - about 20% of the entire area has been visited by advisers'*, and that *'perhaps most important thing [has been] dedicated staff time providing advice to farmers / land managers'* [NIA1].

Other NIA partnerships expressed the view that the establishment of the partnership allowed people working across their areas to share ideas and discussions, which helped in delivery and brought different people and groups together who would not normally work together (e.g. between conservation groups and landowners).

Examples of engagement with landowners and land managers include:

- In Northern Devon, **NIA advisers worked with landowners and managers** from initial visits through to grant applications, and supporting practical work to deliver ongoing environmental outcomes through improved land management.
- In the Meres and Mosses the NIA **contacted, advised and produced site specific management plans for numerous landowners**. Selected examples (among many others) of specific project outputs related to: detailed site advice for ten riparian landowners; contacting and advising 20 wildlife site owners; producing management plans for 15 wildlife sites; and establishing a riparian land owner network.
- The **farm conservation advice project** in Greater Thames Marshes, which undertook introductory farms visits to meet farmers and to discuss follow up visits for breeding bird

[110] See: http://www.fwagsw.org.uk/

[111] For more information see: http://www.mdnep.org.uk/about.html

surveys and care and maintenance advice. Farmer discussion group meetings were also held with local farmers.

- Humberhead Levels established a **reserve managers' forum**, to network, align management plans at a landscape scale, and explore operational issues, and a **working group to bring together land advisers** to improve coordination of agri-environment schemes at the landscape scale.
- South Downs established a **farm conservation advice service,** which lead to participation in five conservation advice events attended by approximately 80 farmers in total.

## 4.5 Becoming places of innovation and inspiration

The NIAs undertook many activities considered to be innovative and potentially inspiring. They: engaged people in the natural environment as volunteers and through public events; used nature for learning (e.g. through educational visits and training for volunteers); and worked to connect people with the local landscape through cultural and artistic interpretation (e.g. art, theatre, music and photography).

This sub-section explores ways in which the NIA partnerships were innovative and may have inspired change in their areas, and beyond. It considers the research that all NIAs undertook, often in partnership with universities, the learning and sharing that has been an important aspect of the NIA initiative, and the innovative nature of much of the surveying and monitoring work completed by NIAs (e.g. using volunteers to undertake surveys).

The success of the NIA partnerships in working with land managers to encourage the uptake and coordination of environmental stewardship options across multiple agricultural holdings, with a focus on landscape scale biodiversity objectives, was a factor in the policy decision to introduce the Countryside Stewardship facilitation fund[112].

### 4.5.1. Research and innovation

The NIA initiative was itself experimental and the NIA partnerships have tested approaches to partnership-led integrated land management at a landscape scale. An outcome of the initial NIA partnerships are the lessons from their successes and the challenges experienced (see section 10). In addition, specific activities were coordinated or initiated by all NIA partnerships that either contributed to research or were innovative. Five of the NIA partnerships included universities among their partners[113], and 11 of the 12 NIA partnerships reported on research being undertaken in collaboration with universities or research institutes.

There is evidence of research and innovation across many of the types of activity the NIA partnerships engaged in, including their work to understand the delivery and measurement of habitat connectivity (see sub-sections 4.2.2 and 6.4), the value of ecosystem services (see sub-section 4.3.7) and in integrated land management (e.g. delivering ecosystem services such as carbon sequestration or water management). Box 4.14 presents further examples of specific research and innovation activities coordinated or led by NIA partnerships.

Research studies also sought to understand and contribute to the practical delivery of landscape scale conservation / nature improvement, for example a research paper in Meres and Mosses (Jones, 2015) on landscape scale conservation with a focus on connectivity within the NIA.

Innovation was demonstrated in relation to engaging with the public and stakeholders, such as farmers and land managers, often in the context of changes to land-use associated with restoration or habitat creation. One example was the farm focus group and a farm advice project in Greater Thames Marshes.

[112] https://www.gov.uk/government/publications/guide-to-countryside-stewardship-facilitation-fund
[113] Birmingham and Black Country, Meres and Mosses, Nene Valley, South Downs Way Ahead and Wild Purbeck.

Research was also conducted in other areas of study, for example work related to a Climate Change Adaptation Plan in Wild Purbeck, and climate modelling in Northern Devon (with the Met Office) (2014).

**Box 4.14: Selected examples of NIA partnerships' research and innovation activities**

- In Birmingham and Black Country a study by Wolverhampton University **researchers working with the NIA partnership helped to develop restoration techniques related to grasslands / meadow**.
- Birmingham and Black Country completed **a three year study exploring the value of green infrastructure in Birmingham and the Black Country** (Hölzinger, O., 2015).
- A PhD student from Sheffield University undertook **research in Humberhead Levels looking at ecosystem services in the context of the NIA**, and in particular carbon analysis, water management, water quality and connectivity and socio-economic services.
- Innovation and research activities related to practical habitat restoration or creation and/or land management techniques included **trialling grassland plots for invertebrates, wildflowers and house sparrows in Dearne Valley**, and a restoration and **research facility in the Dark Peak to map peat depth to assess carbon storage and support habitat restoration**.
- A study ***'Evaluation of the NIA methods in the design of conservation actions and the corresponding associated ecosystem services value'*** **was conducted in Marlborough Downs** NIA by researchers from Southampton University. The NIA partnership also worked to integrate ecosystem services into farm management, including practices to improve conditions for pollinators.
- Northern Devon worked with the University of Exeter in relation to: **a study on the Culm Grasslands looking at the value and role of grasslands in water flow management and flood water retention**. This study on the value of culm grasslands was used to communicate the value of this habitat to land managers, and a final report was published in April 2015 (Cowap *et al*, 2015).

**Source:** Based on interviews with NIAs in December 2013–January 2014 and January-February 2015

### 4.5.2. Learning, sharing and inspiring

Box 4.15 presents examples of the ways in which NIA partnerships enhanced learning and sharing of information and knowledge.

#### *Between and within NIAs*

A key aspect of the NIA initiative was to encourage knowledge exchange and learning both within and between NIA partnerships. A NIA Best Practice Network[114] was established to facilitate the sharing of information, ideas and best practice and to develop a resource base from which to draw inspiration.

A workspace within Huddle[115] (a dedicated knowledge exchange web-tool) was made available to NIA partnerships by Defra and Natural England, and was actively used by NIA partnerships, Natural England and the monitoring and evaluation Phase 2 project team (and is still in use). This provided a platform on which to share documents and information, notifications, publicise and promote events, ask questions and discuss issues. Groups of NIAs also held bilateral discussions and worked together on specific tasks, for example Humberhead Levels met with neighbouring NIA partnerships (Dearne Valley and Dark Peak) to share knowledge and practical expertise.

Over the three grant funded years, the NIA Best Practice Network held five events (Natural England, 2014a). These were organised and hosted by NIA partnerships focussing on: grasslands and landscape delivery (hosted by Northern Devon, September 2012); NIAs and planning (hosted by Dearne Valley, March 2013); ecosystem approach and ecosystem services (hosted by South Downs, September 2013); people, place and economy (hosted by Nene Valley, February 2014); and habitat connectivity (hosted by Birmingham and Black Country, September 2014). Four workshops were also organised under the Phase 2 monitoring and evaluation project, including two annual monitoring and evaluation workshops (in Year 1 and Year 2), and working meetings related to the

[114] See: http://publications.naturalengland.org.uk/publication/4553703239450624

[115] For more information and case studies see: https://www.huddle.com/industries/uk-government/

updated monitoring and evaluation indicator protocols and the online reporting tool (February and March 2014). In addition, ten climate adaptation workshops (Atkins, 2013) have taken place (led by Natural England).

### *With others*

Three NIA partnerships participated in a Sciencewise project to enhance public dialogue[116] leading to innovative ways of engaging with the public and increased understanding of public dialogue and the process of facilitating public participation in local decision making (see sub-section 5.5.2 for more information on this project).

All the NIA partnerships' community engagement and volunteering activities (see sub-section 4.3) provided opportunities for learning and education, knowledge exchange as well as inspiring people. The NIAs increased the opportunity for people to be inspired by the natural environment by providing hands on experience, practical training, improved access, educational visits, talks and workshops and teacher training. They also inspired through cultural activities, including art, theatre, community spaces, and providing opportunities for people to explore their landscape.

**Box 4.15: Examples of NIA partnerships sharing, learning and inspiring people**

- In Dark Peak the NIA partnership promoted knowledge and understanding of emergent pathogens of dry heath communities within partner organisations involved in conservation. This was achieved through training for partners focussing on plant health and diseases, with the aim of enabling partners to survey and manage the Phytophthora[117] disease in future.
- Birmingham and Black Country held a funding workshop at the Growing Birmingham Conference in March 2014. Information was disseminated on NIA partnership funding and other possible funding sources for natural environment groups in the area.
- Information sharing and exchange was improved in Humberhead Levels, in particular through internal stakeholder and management events and meetings. As the Levels is a large area, physically bringing people together was seen as being very helpful. Humberhead Levels also noted that they met informally with neighbouring NIA partnerships (Dearne Valley and Dark Peak) to share knowledge and practical expertise.
- In Northern Devon, two public shows on the natural environment within the NIA were staged by the Beaford Arts Theatre Company (a charity and partner within the NIA), to assist local parishes in understanding how to evaluate the environment. Funding was also raised to take the show to other NIAs.
- In the Meres and Mosses, the wetland restoration officer worked to share knowledge and encourage people to undertake work in different ways. In addition, working groups organised as an aspect of wider NIA partnership planning provided valuable opportunities for information sharing between partners.
- In Marlborough Downs, delivery group meetings provided an opportunity for farmers to learn from conservation professionals, and vice-versa. Knowledge sharing was seen in relation to technical conservation management (e.g. ponds, grassland management) but also through less formal public events such as bat walks.
- In Wild Purbeck, shared delivery projects often also involved the sharing of knowledge and information: *'there's nothing like doing things together to encourage sharing'*.
- Dearne Valley NIA partnership worked with the local council promoting an innovative area for industry and wildlife using, for example, green roofs and SUDS[118]; and developing good practice with the Environment Agency on the use of wash-land in flood control, holding water further up the catchment. The partnership also worked with the Landscape department at Sheffield University to develop communication materials, to raise the profile of the NIA and increase the number of volunteers.

**Source:** Based on interviews with NIAs in May-June 2014 and January-February 2015, and record of the Year 2 monitoring and evaluation workshop.

## 4.5.3. Surveying and monitoring

Surveying and monitoring encompasses the NIA partnerships' work to monitor progress against their funding agreement objectives using the NIA monitoring and evaluation framework and indicators

[116] See: http://www.sciencewise-erc.org.uk/cms/nature-improvement-areas/
[117] For more information see: http://www.forestry.gov.uk/phytophthora
[118] SUDS: Sustainable Urban Drainage Systems

(CEP, 2014b), as well as the surveying and monitoring by partnerships to collect and collate data on, for example, locally important habitats and species.

The efforts of NIA partnerships in completing their monitoring and evaluation obligations are reported in section 5. Evidence related to the work undertaken by volunteers in NIAs (sub-section 5.2.3) and NIA partnerships' expenditure (sub-section 5.2.2) show that an increased amount of surveying, data and mapping work was undertaken over the three grant funded years. The reported number of days volunteering on NIA activities related to 'monitoring and evaluation, surveys and research' increased from 462 days in Year 1, to 2,272 days in Year 2 and 6,208 days in Year 3, a total time of approximately 19 FTEs in the final year across all 12 NIAs.

Box 4.16 presents selected examples of surveying and monitoring activities undertaken by the NIA partnerships.

**Box 4.16: Selected examples of surveying and monitoring activities**

- **Monitoring of a project to increase the number of species inhabiting grasslands** through the creation of meadows on former industrial sites (Birmingham and Black Country) by a PhD student from the University of Wolverhampton.
- **Surveys were used to explore the potential to reconnect lowland calcareous grassland parcels** through management, restoration and creation or grasslands (Marlborough Downs).
- **Habitat surveys used to create improved Priority Habitat Inventory layers** for reedbed and wet woodland (Humberhead Levels).
- **Species surveying** including:
    - Water vole surveying (including training of volunteers) in Dearne Valley and Meres and Mosses.
    - Surveys and surveyor training for butterflies and farmland birds surveys (Marlborough Downs).
    - Engagement of volunteers in butterfly monitoring (Morecambe Bay).
    - Breeding bird survey and ongoing wetland bird monitoring (Nene Valley).

**Source:** NIA Year 3 quarterly Progress Reports and Year 2 annual summaries.

# Part III: Detailed Evaluation of the NIAs

# 5. Evaluation of Inputs and Processes

## Key findings at the end of Year 3: Inputs and processes

- NIA partnerships generated considerable added value[119]: the initial NIA government grant over the three years was just over £7.5 million. Over the same period NIA partnerships reported a **total value of additional resources equivalent to £26.2 million**[120], including the financial value of services in-kind and of time given by volunteers[121]. The ratio of additional resources to the grant funding is approximately 3.49, i.e. across the NIA partnerships on average **£3.49 of additional resource, of which £2.03 was from non-public sources, was generated for each £1.00 of the initial NIA government grant**.
- The **largest non-public contribution of additional resources came from NGOs / non-profit organisations (40% - £10.5 million).** Public sector organisations (national and local) contributed a combined total of £10.9 million (42%), while the private sector contributed £1.6 million (6%). The remaining contribution was the value of volunteers' time (11%), the academic sector (<1%) and 'unspecified' (<1%).
- Over the three grant funded years the **resources used by NIA partnerships had a total value of £33.7 million** (including the financial value of services in-kind and volunteering time), of which: **60% (£20.3 million) was on implementation** (land management activity, improvement works including capital items); 21% (£7.1 million) administration, staff and office costs[122]; 6% (£2.1 million) on monitoring and evaluation, data, surveys and mapping and other research; and 5% (£1.5 million) on communication, education and stakeholders (including meetings, training and events).
- The number of staff employed directly by NIA partnerships was relatively small[123], but **staff time and help in-kind made up 41% of total added value (equivalent to £10.9 million)**. Assuming indicative direct staff costs of £30,000 per full-time equivalent (FTE) per annum, staff time and help in-kind equated to approximately 364 FTEs across all NIA partnerships over the three years.
- The **total amount of volunteering reported over the three years was 47,159 days, equivalent to 68 FTEs per year[124] (on average approximately 6 FTEs per NIA per year)**. As a comparison, the New Forest reported that in 2014/15 over 900 volunteering days were recorded from people taking part in their work that year. Whilst the NIAs covered approximately 9 times the area of the New Forest, the average number of NIA volunteering days per year was 17.5 times the number in the New Forest.
- Key benefits of partnership working as expressed by NIA partnership chairs through interviews included: **agreed priorities** across organisations who may not have coordinated activities before; **breaking down barriers** between organisations; **sharing of data and knowledge**; and **involving local communities**.
- **Across all the NIA partnerships, there was evidence of research activity and innovation taking place**. Research was often undertaken in partnership with local universities, for example on ecosystem services and practical habitat restoration or creation and/or land management techniques. Examples of innovation include the ways NIA partnerships engaged with the public

[119] Added value is defined here as any additional resources over and above the funding provided by Defra and Natural England in the initial NIA scheme grant, and is based on financial information supplied by Natural England. Some of these additional resources included as 'added value' came from other public sector initiatives, including from within the Defra family.

[120] Note that all financial information was subject to a full check and verification by Natural England at the end of the grant funded period (April 2015). This led to some revisions to figures reported previously in the Year 1 and Year 2 Progress Reports.

[121] Financial value of volunteer time calculated using standardised rates of: General unskilled labour £6.25 per hour, £50 per day; Specialist, skilled trained labour £18.75 per hour, £150 per day; Specialist services £31.25 per hour, £250 per day; Professional services £50 per hour, £350 per day

[122] Note that due to the way expenditure has been categorised and reported administration and staff costs include some direct delivery. This category therefore relates to a broader range of activities than may generally be associated with project administration.

[123] Most NIA partnerships reported only on direct employment and thus these data did not consistently include contractors, sub-contractors or consultants.

[124] Calculated based on a full time equivalent being 230 days per year and 7 hours per day.

and stakeholders, such as farmers and landowners.

- The **NIA partnerships were supported throughout the three years by Defra, Natural England, Environment Agency and Forestry Commission**, both at the national level (e.g. the Natural England core management team) and the individual NIA level (e.g. Natural England local leads, and local support from the Environment Agency and Forestry Commission). Natural England committed an average of nearly 7 FTEs / year across the three years between their national role (3.7 FTEs / year) and local support (3.16 FTEs / year). Through interviews with partnership chairs and the survey, **NIA partnerships reported on the value of this support and its' importance to their project's success**.

### NIA partnerships' plans for the future (2015-20)

- **All NIA partnerships considered how they will continue to deliver their objectives in the future**, focussing on the period 2015-20 which was an expectation in their funding agreements.
- Based on interviews with NIA partnership chairs and NIA progress reporting, at the end of the grant funded period **four NIA partnerships had already secured funding to support aspects of delivery and all of the 12 NIA partnerships were actively seeking additional funding sources**. Common sources include the Heritage Lottery Fund (for Landscape Scale Partnerships) mentioned by six (50%) of NIA partnerships and European funding (e.g. LIFE+[125] and INTERREG[126]) mentioned by four (33%) of the partnerships. One NIA (South Downs) is seeking to mobilise payments for ecosystem services, through a visitor payback scheme (where visitors make voluntary contributions towards local environmental improvements) to support chalk grasslands restoration.
- In January 2015 Defra announced **the Countryside Stewardship facilitation fund: groups formed from four of the 12 NIAs were awarded funding** when the results of the first round of facilitation funding were announced in July 2015[127].
- NIA partnerships also worked with their partner organisations to help **ensure NIA objectives and principles are carried forward by other partnerships active within the NIA boundary**. Six NIA partnerships specifically referred to existing Local Nature Partnerships or other established local natural environment focussed partnerships as being integral to continued delivery of NIA objectives after March 2015.

## 5.1 Introduction

This section evaluates the inputs and processes supporting delivery in the NIA partnerships. This includes the financial resources invested in and spent by NIA partnerships, the human resources available to them, and the extent to which they generated added value. It also includes the processes supporting NIA implementation, including how NIA partnerships functioned, their management and planning processes, the role of monitoring and evaluation and the extent to which NIA partnerships generated and shared knowledge and information. Finally, this section considers the support that NIA partnerships received from Natural England, Defra and other government agencies, and the role of this support in the work of NIA partnerships.

### 5.1.1. Data sources used in this section

The evaluation of inputs and processes is based on analysis of information and data from the following sources:

- NIA data entry in the online reporting tool for monitoring and evaluation indicators:

[125] See: http://ec.europa.eu/environment/life/funding/lifeplus.htm
[126] See: http://www.interreg4c.eu/programme/
[127] See: https://www.gov.uk/government/publications/countryside-stewardship-facilitation-fund-successful-applications

- Social and economic theme: number of volunteer hours on NIA activities (core); number of people employed in NIA activities (optional).
- Partnership working theme: project income and expenditure (core); financial value of help in-kind (core); audience reach (optional); number of enquiries (optional).

Note: a table summarising the NIA partnerships' monitoring and evaluation indicator selection is included in Appendix 1.

- Financial analysis collated and provided by Natural England based on NIA partnership financial claim forms.
- NIA partnership self-reporting on progress through quarterly Progress Reports and annual Progress Summaries as submitted to Natural England.
- Other NIA partnership generated documents and information such as: NIA partnership websites; supporting documentation uploaded to the online reporting tool.
- Outcomes of interviews with NIA partnerships held in December 2013 – January 2014 related to research and innovation; May – June 2014 related to social and economic wellbeing and partnership working; and January – February 2015 related to the difference that being an NIA made.

  Note that the interviewees agreed that quotes could be used from the interviews, but this was on the understanding that they would be anonymised. Therefore, where quotes are used in this report an NIA code (e.g. [NIA 4]) is used to identify them rather than the name of the interviewee or NIA partnership.
- Data and evidence generated through the research to understand the difference the NIAs made over and above what would have happened anyway (counterfactual).
- National information sources: English Biodiversity Strategy Indicator 14a – conservation volunteering; Community Life Survey (2014-15) (HM Government, 2015b).

### 5.1.2. Summary of the evaluation of inputs and processes

This section considers the evaluation questions set out Table 5.1. This table also presents headlines from the evaluation against each evaluation question.

The evaluation examines the extent to which NIA partnerships completed delivery or achieved expected outcomes at the end of the three year government grant funding period. Many outcomes and impacts of the NIA partnerships' activities and wider NIA programme are only expected to be seen in the longer-term (see Appendix 2 for more information on timescales of impacts), and NIA partnerships were expected to continue some activities after the end of the NIA grant funded period.

Further detail to support the evaluation headlines in Table 5.1 is provided in the key findings and the following sub-sections.

**Table 5.1: Inputs and processes evaluation questions and evaluation headlines**

| Questions | Sub-questions | Evaluation headlines | Summary of counterfactual findings[128] |
|---|---|---|---|
| **What is the nature and scale of inputs to the NIAs?** | 1. What human resources have the NIAs had at their disposal? | • Across contracted staff, volunteers and help in-kind NIA partnerships mobilised hundreds of people: it is estimated that employment equivalent to at least 360 FTEs was generated and the actual | • 94% of NIA partners felt that the development of a shared vision was one of the biggest benefits of the NIA. It was also ranked as the third most important change experienced by |

[128] The full findings of the counterfactual are presented in the report in Annex 1. See Appendix 2 for a summary of the counterfactual method.

| Questions | Sub-questions | Evaluation headlines | Summary of counterfactual findings[128] |
|---|---|---|---|
| | | figure is probably much larger. [Sub-section 5.2.3]<br>• A total of 47,159 days (approximately 68 FTE/year in total or – on average – 6 FTEs/year per NIA) of volunteering was reported across all NIA partnerships.<br>• As a comparison, the New Forest reported that in 2014/15 over 900 volunteering days were recorded from people taking part in their work that year. Whilst the NIAs covered approximately 9 times the area of the New Forest, the average number of NIA volunteering days per year was 17.5 times the number in the New Forest. [Sub-section 5.2.3] | participants to the survey.<br>• 84% of respondents felt that being an NIA partnership had 'improved' (55% of respondents) or 'much improved' (29%) access to additional funding (over and above the government grant).<br>• Interviews with NIA partnership chairs indicate additional resources were mobilised by: NIA funding acting as 'seed' money to encourage match-funding and gain partner support; enabling initial work on projects, encouraging participation and help in-kind; helping partner organisations work together on joint funding bids; and funding staff to encourage volunteers and communities to become involved. |
| | 2. How much financial added-value have NIAs been able to generate above the initial NIA grant aid, and from what sources; and how have additional resources been mobilised? | • NIA partnerships were successful in mobilising additional resources (including the financial value of services in-kind and of time given by volunteers) to support their work: across the NIA partnerships on average £3.49 of additional resource was generated for each £1.00 of the initial NIA government grant from Defra and Natural England, of which £2.03 was from non-public sources.<br>• Considering all public resources together, the ratio of additional non-public resources to public resources was 0.83, meaning that for each £1.00 of total public support to the NIA partnerships, £0.83 of additional value was generated. [Sub-section 5.2.1] | |
| | 3. How have the NIA partnership's made use of their resources and what does their expenditure related to? | • Across all NIA partnerships, resources with a value of £20.3 million were used for implementation (land management activity and improvement works), representing 60% of total expenditure.<br>• £7.1 million (21% of total) related to administration, staff and office costs[129]. | |
| **How are partnerships, management and** | 4. How are the NIA partnerships structured and governed? | • Each partnership used a different structure, but the use of high-level steering or | • Through interviews, national stakeholders expressed that the NIA |

[129] Note that due to the way expenditure has been categorised and reported administration and staff costs include some direct delivery. This category therefore relates to a broader range of activities than may generally be associated with project administration.

| Questions | Sub-questions | Evaluation headlines | Summary of counterfactual findings[128] |
|---|---|---|---|
| **planning supporting NIA implementation?** | | advisory groups with project or objective specific working / delivery groups was common. [Sub-section 5.3.1]<br>• Most (10 of 12) NIA partnerships evolved from existing partnerships in their area, and this was an important factor in effective partnership working. | programme improved partnership working, and led to more joint working between organisations, and that this resulted in work happening that would not have otherwise.<br>• 93% of survey respondents felt that partnership working is 'more' (57% of respondents) or 'much more' (36%) effective due to establishment of the NIA programme.<br>• 91% of respondents felt that coordination of activities in their area was 'improved' (52% of respondents) or 'much improved' (39%).<br>• Some challenges were noted by survey respondents, including additional workload (48% of respondents), administrative burden (43%) and high expectations from partners, civil society and communities (22%). |
| | 5. How is partnership working supporting implementation within the NIAs? | • NIA partnerships all worked effectively to deliver their business plans. [Sub-section 5.3.1]<br>• Breaking down barriers between organisations, and sharing knowledge and capacity were key benefits of partnership working reported [Sub-section 5.3.1] | |
| | 6. What management and planning processes are the NIA partnerships using? | • See sub-question 4.<br>• All NIA partnerships had management structures in place including: partnership chairs, with oversight and overall responsibility; NIA project managers, responsible for day-to-day management of the partnership and delivery against agreed objectives; and monitoring and evaluation leads responsible for ensuring monitoring and evaluation requirements were met. | |
| | 7. To what extent are the NIA partnerships planning for the future, and what resources have been secured? | • In March 2015, four NIA partnerships had already secured funding to support aspects of ongoing delivery and all NIA partnerships were actively seeking additional funding sources.<br>• The most common sources being Heritage Lottery Funding (Landscape Partnerships) and European Commission funding (such as LIFE+ and INTERREG). [Sub-section 5.3.5] | |
| | 8. What influence do the NIA partnerships have within NIAs and beyond? | • The NIA partnerships reached out and sought to influence people, including by developing websites, engaging people through social and traditional media, and working with people and organisations in and outside their areas to promote changes in practice (e.g. in relation to plant disease management in the Dark Peak). | |
| **To what extent is monitoring and evaluation supporting NIA** | No sub-questions | • Reported benefits of a structured monitoring and evaluation process included: improved understanding and | • Through interviews national stakeholders expressed that although the monitoring and |

| Questions | Sub-questions | Evaluation headlines | Summary of counterfactual findings[128] |
|---|---|---|---|
| **implementation?** | | communication; enhanced data availability and sharing; and opportunities for awareness raising and training. [Sub-section 5.4] | evaluation process required considerable investment, it had greatly improved the evidence base for the NIA projects and provided accountability and transparency.<br>• Respondents to the survey expressed that being part of an NIA partnership helped overcome monitoring and evaluation challenges, for example through much closer working between a variety of organisations. |
| **How has learning, research and innovation helped support NIA implementation?** | 9. How are the NIA partnerships sharing information and knowledge? | • NIA partnerships shared knowledge at events (such as best practice events) and informally within partnerships. [Sub-section 5.5.1]<br>• NIA partnerships reported that knowledge and data sharing has been enhanced by the partnership-led approach. [Sub-section 5.3.3 and 5.5.1] | • 84% of survey respondents felt that the sharing of data and information was 'improved' (58% of respondents) or 'much improved' (26%) due to the NIA partnership.<br>• 89% of respondents felt that learning through dissemination was 'improved' (64% of respondents) or 'much improved' (25%).<br>• Through interviews national stakeholders expressed that by supporting 'the narrative' around ecosystem services, and developing projects to demonstrate ecosystem services the NIAs have raise their profile locally and nationally. |
| | 10. To what extent is information and knowledge sharing supporting the NIA partnerships in achieving their objectives? | • Sharing of data supported the work of NIA partnerships including by: enabling organisations to benefit from mapping and other data not normally available to them; supporting funding applications; learning from each other (between and within NIAs) thus improving practice. | |
| | 11. What contribution are the NIA partnerships making to wider research and innovation? | • All NIA partnerships engaged in research and innovation. [Sub-section 5.5.2] | |
| **How has support from Natural England, Defra and other agencies supported NIA implementation?** | 12. What support have the NIA partnerships been receiving from Natural England, Defra and other agencies? | • Data provided by Natural England and the Environment Agency indicate that they collectively provided almost 9 FTEs/year of support to the NIA programme and the partnerships over the three grant funded years.<br>• For Natural England this is broadly in-line with expectations: planned support was 3 FTEs/year for the national programme, and 0.5 FTEs / year / NIA locally [Sub-section 5.6]<br>• The support provided was direct (e.g. training and data provision / collation) and administrative / structural (e.g. access to the Huddle web-space). [Sub-section 5.6] | • While 67% of survey respondents felt that local support from Natural England 'improved'(57% of respondents) or 'much improved' (10%) due to the establishment of the NIA programme, there was statistically significant variation among NIAs, with smaller NIA partnerships (by number of partners) more likely to report improved support than larger partnerships.<br>• Through interviews national stakeholders expressed that by encouraging greater joint working, the NIA programme had brought statutory agencies (e.g. |
| | 13. How has this support | • Through interviews with | |

| Questions | Sub-questions | Evaluation headlines | Summary of counterfactual findings[128] |
|---|---|---|---|
| | contributed to the NIA partnerships? | partnership chairs and the survey, NIA partnerships reported that the support provided was important in successful implementation. [Sub-section 5.6] | Natural England and Forestry Commission) closer and improved communication. |

## 5.2 Finance and resources

### 5.2.1. Financial resources and added value

The 12 NIA partnerships were awarded government grant funding, but were also expected to make use of non-public sector resources (e.g. volunteers, landowners and private sector investment) as well as engage communities and civil society in the delivery of proposed activities. Additional resources mobilised by NIA partnerships included financial support, help in-kind, and the time of volunteers.

Figure 5.1 presents the government grant funding and added value[130] (broken down by added value from national and local public sources and non-public sources) across the NIA partnerships in each of the three grant funded years (2012-15)[131] and Figure 5.2 shows total grant funding and added value. These figures illustrate the proportion of total resources generated over and above the government grant. Over the three years the initial government grant was just over £7.5 million, and NIA partnerships reported total value of additional resources equivalent to £26.2 million, including the financial value of services in-kind and of time given by volunteers[132]. The ratio of additional resources to initial NIA government grant funding is approximately 3.49, meaning that across the NIA partnerships on average £3.49 of additional resource was generated for each £1.00 of the initial NIA government grant from Defra and Natural England.

Considering all public resources together (government grant plus additional resources from local and national public sources), the ratio of additional *non-public* resources to public resources was 0.83, meaning that for each £1.00 of total public support to the NIA partnerships, £0.83 of additional value was generated. Figure 5.1 shows that the total added value in Year 3 (£7.9 million) decreased slightly compared to Year 1 (£8.2 million). The amount of added value varied in each year, but did not fall below £7 million in any one year.

One interesting reflection is that value added (additional resources) from public sources was largest in Year 2, and that this corresponds with the trend in environmental stewardship options within NIAs, which shows a peak in 2014 (see analysis of the counterfactual presented in Annex 1). It is likely therefore that this high level of public additional resources in Year 2 reflected, at least in part, the value of environmental stewardship options being delivered under the aegis of the NIA partnerships.

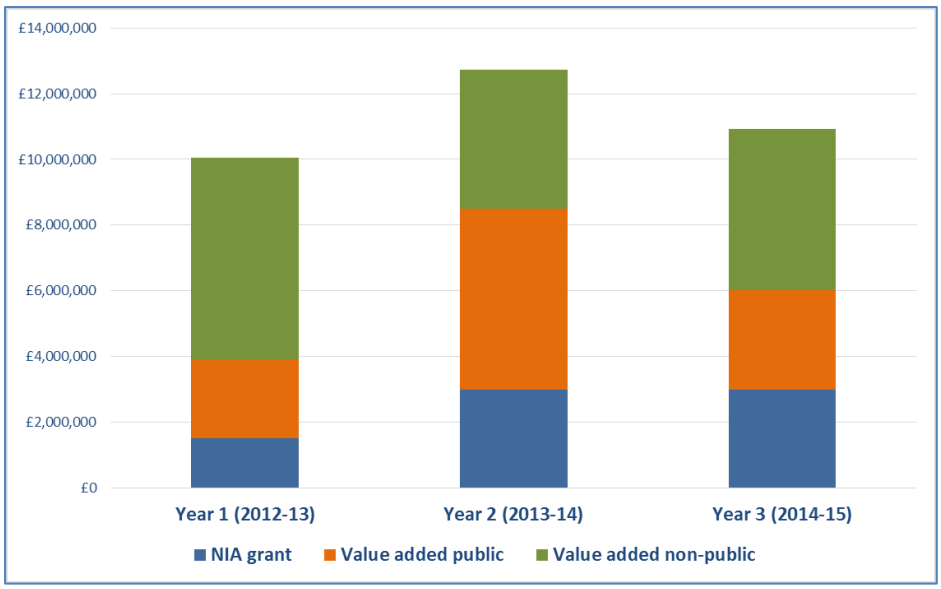
Box 5.1 presents examples of how the NIA partnerships mobilised additional resources.

[130] Added value is defined here as any additional resources over and above the funding provided by Defra and Natural England in the initial NIA scheme grant, and is based on financial information supplied by Natural England. Some of these additional resources included as 'added value' came from other public sector initiatives, including from within the Defra family.

[131] Note that all financial information has been subject to a full check and verification by Natural England at the end of the grant funded period (April 2015). This led to some revisions to figures reported previously in the Year 1 and Year 2 Progress Reports.

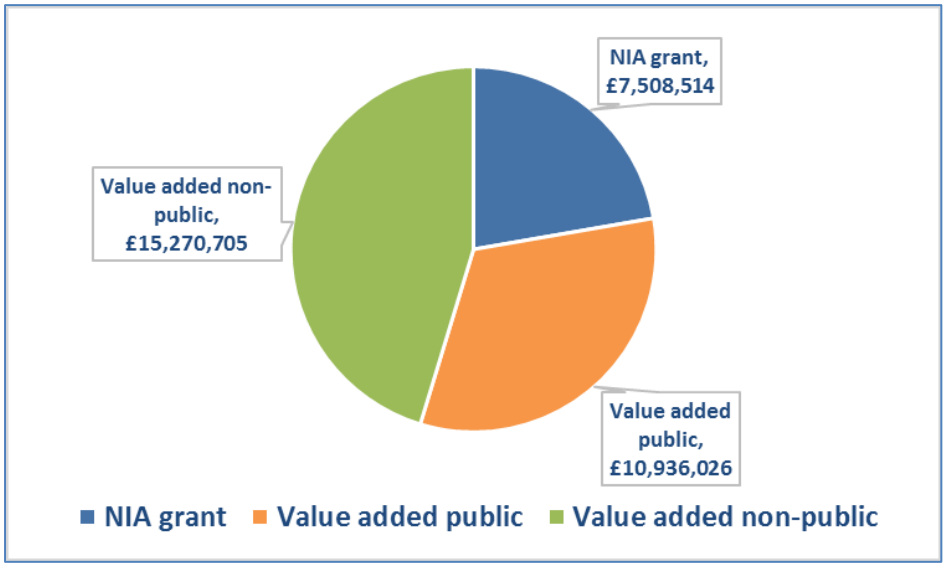
[132] Financial value of volunteer time calculated using standardised rates of: General unskilled labour £6.25 per hour, £50 per day; Specialist, skilled trained labour £18.75 per hour, £150 per day; Specialist services £31.25 per hour, £250 per day; Professional services £50 per hour, £350 per day

**Figure 5.1: NIA government grant and financial value of additional resources in Years 1, 2 and 3**




**Source:** Based on financial summary of spend spreadsheets, collated by Natural England (dated 27 July 2015).

**Figure 5.2: Total NIA grant and financial value of additional resources (2012-15)**




**Source:** Based on NIA Programme Financial Overview, collated by Natural England (dated 26 June 2015)

**Box 5.1: How did NIA partnerships mobilise additional resources?**

The survey of NIA partners and interviews with NIA partnership chairs in early 2015 identified that:

- The government grant for NIA partnerships acted as a catalyst in unlocking additional funding, for example by providing the basis for match-funding from diverse sources, including through in-kind support.
- The grant fund also acted as seed-funding where there was desire for particular projects, but no means to 'kick-start' them. With initial funding in place, partner and non-partner organisations were motivated to get engaged.

  One NIA partnership chair interviewee noted that the NIA was *'not just about delivering projects, but someone has to 'make the first move' and anything that requires funding from a range of sources you need a starting point - an initial amount of funding on the table to be used to encourage match-funding and support. Having the initial money was really useful in galvanising others to engage and identify additional resources'* [NIA 11].

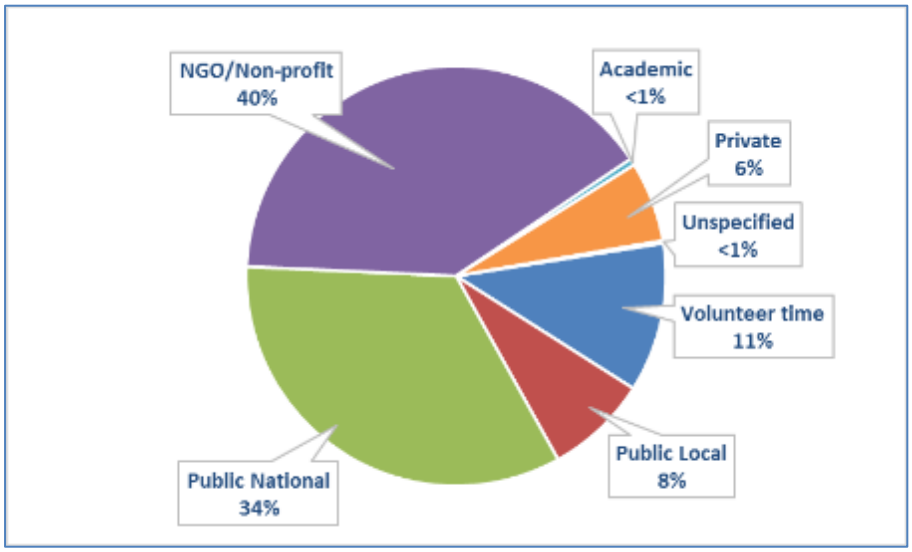
- One interviewee also said that the NIA status was of great value to a local university in completing research funding applications. Being part of a national government backed initiative was a factor in successful funding bids for NIA related research [NIA 9].
- NIA partnerships used their government grant funding to create land management adviser posts / farm liaison to communicate and work with farmers and land managers, both to improve practice and increase access to HLS funding applications.
- Coordination and joint working on funding applications across organisations enabled the NIA partnerships to tap into additional funding sources. It is not known if this funding was displaced from other areas or was new funding for the natural environment.
- Working with local authorities helped identify additional funding for projects in NIAs, for example by using Section 106[133] agreements for biodiversity projects. It is not known if these Section 106 funding would have been spent on natural environment in the absence of the NIAs.

**Source:** Interviews with NIA partnership chairs, survey of NIAs and social and economic case studies

Figure 5.3 shows the percentage contribution to total added value across the NIA partnerships over the grant funded period (2012-15) from the following sectors: public local; public national; NGO / non-profit; academic; and private. The largest contribution came from NGOs / non-profit organisations (40% - £10,453,706) and is likely to represent a combination of the financial value of in-kind contributions, staff time and on-costs[134] as well as cash contributions to particular projects. Public sector organisations (national[135] and local) contributed a combined total of £10,936,026 (42%), while the private sector contributed £1,621,032 (6%).

Aside the proportion that relates to environmental stewardship schemes (see Figure 5.5) a detailed breakdown of the public sources (national and local) of funding that makes up the added value reported by the NIA partnerships is not possible (e.g. which specific grants this has come from), though it seems probable that this money and support in-kind from government agencies would have been available for work related to the environment in the absence of the NIA partnerships. The NIA partnerships however focussed the use of such funding and support around agreed objectives in their areas.

### Figure 5.3: Percentage sector share of total added value (2012-15)




**Source:** Based on NIA Programme Financial Overview, collated by Natural England (dated 27 July 2015)
**Note:** Public National includes HLS funding. The contribution of HLS funding may be an underestimation, as not all NIA partnerships reported fully on HLS funding as added value.

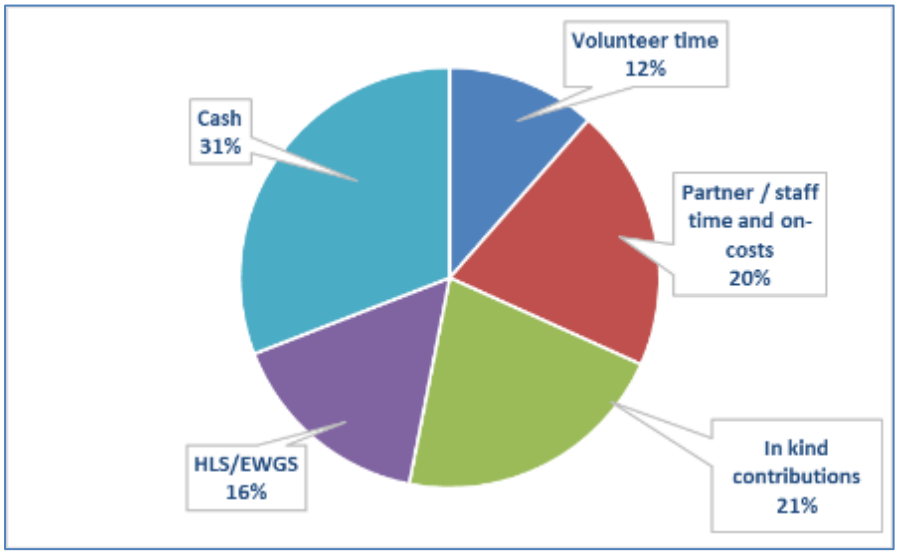
[133] See: http://www.pas.gov.uk/3-community-infrastructure-levy-cil/-/journal_content/56/332612/4090701/ARTICLE [last accessed 8 July 2015]
[134] On-costs are the costs associated with employing somebody over and above their salary.
[135] Note: public national added value include HLS funding. The contribution of HLS funding may be an underestimation, as not all NIA partnerships reported fully on HLS funding as added value.

**Key to income sources** (as used by Natural England to categorise income)**:**

- **Public National**: any government department or agency e.g. Defra, Natural England, Forestry Commission, Environment Agency including grant schemes Higher Level Stewardship (HLS) etc). May also include others e.g. Kew Gardens. Also includes other Rural Development Programme for England (RDPE) e.g. LEADER; Biosphere reserves
- **Public Local**: local authorities and local authority funded organisations. Also includes National Park Authorities, AONBs, Internal Drainage Boards
- **NGO/Non-Profit**: NGOs or other non-profit organisations Wildlife Trusts, RSPB, funding bodies (Lottery, Heritage Lottery Fund (HLF) etc), record centres, friends groups, Groundwork and other charities
- **Private**: private companies or individuals including landfill tax companies (e.g. SITA, Biffa) and water companies
- **Academic**: universities or other research institutes or individuals carrying out research activities
- **Volunteer time**: financial value of volunteer time calculated from volunteer time sheets (claim form section 5). The financial value of volunteer time was calculated based on time recorded under the following categories: general unskilled labour: £6.25 per hour, £50 per day; specialist, skilled trained labour: £18.75 per hour, £150 per day; specialist services: £31.25 per hour, £250 per day; professional services: £50 per hour, £350 per day

Figure 5.4 shows breakdown by type of total added value over the grant funded period (2012-15), including cash-contributions, volunteering, help in-kind, HLS[136] (Higher Level Stewardship scheme), / EWGS (England woodland grant scheme) funding, staff time / on-costs. This shows that cash contributions (either from partners or other organisations) was the largest single element of added value representing 31% of the total (£8,094,925), with in-kind contributions being the next largest at 21% (£5,594,609)[137]. The value of staff time and on-costs represented a total of £5,594,609 (20%) and the financial value of volunteering accounted for 12% of added value (£3,011,541).

**Figure 5.4: Percentage of total added value by category (2012-15)**




**Source:** Based on NIA Programme Financial Overview, collated by Natural England (dated 27 July 2015)

**Notes:**

- The value of volunteer time calculated by Natural England based on NIA volunteer time sheets
- Partner/staff time and on-costs includes salary costs, on-costs i.e. overheads and also staff/partner time working on NIA activities and/or management and time at meetings/workshops, etc.
- In-kind delivery contributions include costs for carrying out projects within the NIA (e.g. farm advice).
- HLS is as reported by NIA partnerships in Natural England claims, note this is likely to be under reported as not all NIAs included HLS in their added value figures.
- Cash refers to non- HLS cash received either from partners or other external funding sources.

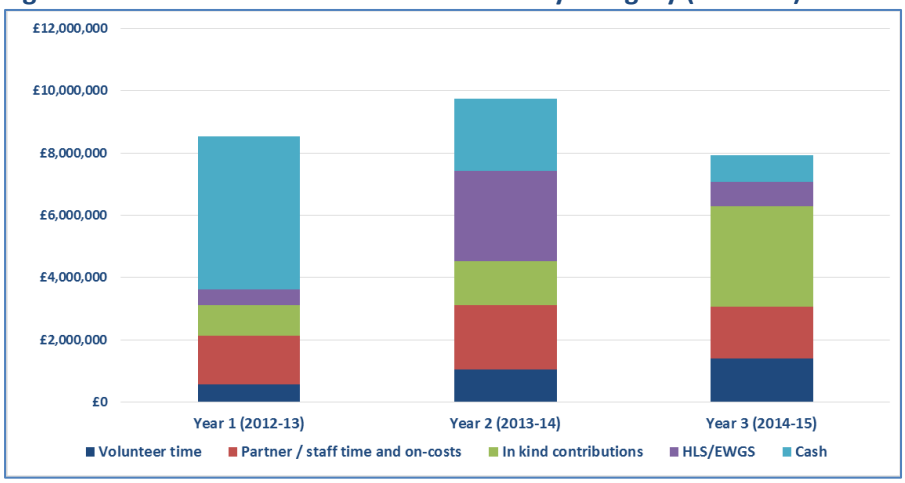
Figure 5.5 shows how the breakdown of added value changed across the three funded years. While total annual added value remained broadly similar (between £7.9 million and £9.7 million), the level of cash-contributions fell in each year. The decrease in cash-contributions was largely offset by increases in in-kind contributions and the value of volunteering. The financial value of in-kind

[136] The contribution of HLS funding may be an underestimation, as not all NIA partnerships reported fully on HLS funding as added value.

[137] The interviews with NIA partnerships in May – June 2014 identified that the recording of help in-kind may be variable, with NIA partnerships reporting that extracting information from partners about in-kind contributions proved 'difficult' or was 'not being captured' with the main reason cited being that project delivery often took precedence over monitoring and evaluation activities. This means that the help in-kind contribution to added-value may represent an underestimate of the actual total.

contributions increased from £968,404 in Year 1 to £3,222,850 in Year 3, and the financial value of volunteer time increased from £582,671 in Year 1 to £1,391,618 in Year 3. The added value from cash fell from £4,922,084 in Year 1 to £850,859 in Year 3. These changes in relative contributions reflect a focus on planning and coordination in the first year and a shift towards increased project implementation in Years 2 and 3.

**Figure 5.5: Annual overview of added value by category (2012-15)**

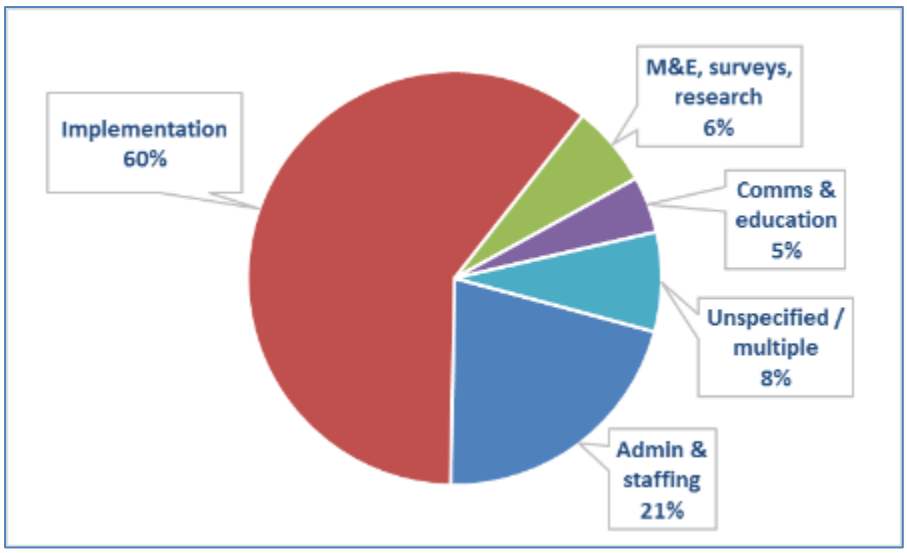



**Source:** Based on NIA Programme Financial Overview, collated by Natural England (dated 27 July 2015)

### 5.2.2. NIA partnerships' use of resources

Claim forms submitted to Natural England by the NIA partnerships provided information on the financial value of resources used. Figure 5.7 shows the percentage of total resources used by NIA partnerships over the three grant funded years by category (2012-15). Total resources used had a financial value of £30.7 million, of which: 60% (£20.3 million) was on implementation (land management activity, improvement works including capital items); 21% (£7.1 million) administration, staff and office costs; 6% (£2.1 million) was on monitoring and evaluation, data, surveys and mapping and other research; and 5% (£1.5 million) on communication, education and stakeholders (including meetings, training and events) (see Figure 5.6). The 'administration, staffing and office costs' category includes some elements of direct delivery, for example where NIA project staff carried out site work. In addition this category includes the preparation of funding bids and responding to planning applications, and thus includes more than just administration and coordination. This category therefore relates to a broader range of activities than may generally be associated with project administration.

**Figure 5.6: NIA partnerships' resource use by category (2012-15)**



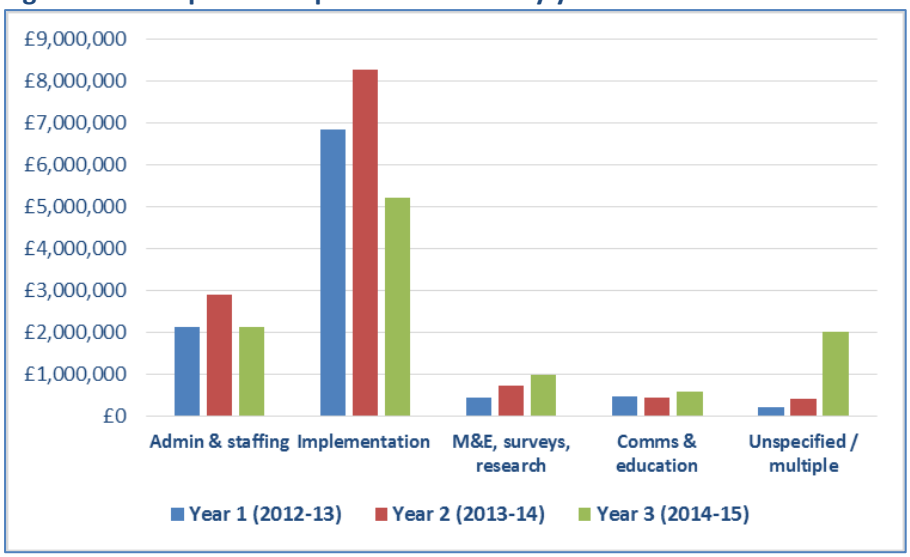

**Source:** NIA Programme Financial Overview, collated by Natural England (dated 27 July 2015)

**Notes:**

- Administration, staff costs, office work etc: salaries, training, travel etc. Also includes administration work, contract preparation and planning applications, bid development and PPE
- Implementation: land management activity/ improvement works including capital items
- Monitoring and evaluation, surveys / mapping and research includes expenditure classified as:
  - Monitoring and Evaluation: any work specified as supporting the monitoring and evaluation programme
  - Data, survey and mapping: data collection, mapping, site survey and sampling
  - Research: feasibility plans and studies and other academic research
- Communication, education and stakeholders: meetings, events, websites etc. Also includes provision of training and advice

Figure 5.7 shows how resources used by category changed across the three grant funded years. Implementation was the largest area of resource use in each of the three years. The value of resources used for administration, staffing and office costs and implementation was highest in Year 2, while the resources used for monitoring and evaluation, surveys/data and research increased over the three years. The financial reporting system did not record reasons for changes in the levels of resource use, but these changes indicate that NIA partnerships broadened the focus of their efforts, using more resource for education and community events, as well as increasing the amount of research and surveys / data collection and mapping.

**Figure 5.7: NIA partnerships' resource use by year**




**Source:** Based on NIA Programme Financial Overview, collated by Natural England (dated 27 July 2015)

### 5.2.3. Human resources and volunteering

Ten NIA partnerships[138] reported on the optional indicator: *number of people employed in NIA activities*. At the end of Year 3 the reported number of people directly employed ranged from approximately 1.1 FTEs (Marlborough Downs) to more than 13 FTEs (Northern Devon), with the average (mean) number of people directly employed across the ten NIA partnerships that reported it being 6.4 FTEs.

As an example of the direct employment created by NIA partnerships, Morecambe Bay reported that they employed: habitat specialist advisers (3 x 0.8 FTE); a communication officer (0.4 FTE); an apprentice (1 FTE); and an intern (1 FTE).

These data probably underestimate the actual levels of employment on NIA activities. The indicator protocol required NIA partnerships to record all employment resulting from NIA funding, including contractors, sub-contractors and consultants. However, some NIA partnerships only recorded direct employment and in other cases the overall total is not known by the partnership. For example, Northern Devon reported that *'many'* contractors were employed to carry out works programmes related to HLS applications submitted by the NIA partnership, but that the range of works is complex and clear figures for the actual level of employment not readily available. Marlborough Downs reported that *'a lot more people* [than recorded in the online tool] *are paid for services from the NIA fund'*, including contractors and specialists working on surveys, website development, management planning.

In addition to employment reported by the NIA partnerships, 23% of total added value across the NIA partnerships was attributed to partner / staff-time and on costs, with a value of over £5.3 million over the three grant funded years, and a further £5.6 million attributed to help in-kind (see sub-section 5.2.1). If an illustrative average staff and on-costs of £30,000 per FTE per annum is assumed[139], the partner / staff time and on costs added value equates to an approximate total of 177 FTEs over the three years (59 FTEs per year), with help in-kind equating to an additional 187 FTEs (62 FTEs per year)[140].

Box 5.2 presents selected examples of NIA partnership staffing changes and challenges. The end of the grant funding period, and associated reporting requirements were common challenges mentioned by NIA partnerships. The loss of key NIA staff towards the end Year 3 was also frequently mentioned in NIA partnership reporting, although most partnerships have sought other funding sources to continue work on NIA related activities (such as Heritage Lottery Funding for landscape partnerships, and the new Countryside Stewardship facilitation fund[141]). Sub-section 5.3.5 and section 9 provide more information on how NIA partnerships have planned for the future.

**Box 5.2: Examples of NIA partnerships' staffing changes and challenges**

- A lack of staffing at the end of the NIA programme manager post (31 March 2015) made the end of project planning, monitoring and evaluation work 'more challenging' in Dearne Valley. However all partners came together and provided support to enable the project to finish smoothly, and a one year post is being hosted by Yorkshire Wildlife Trust to continue project management of the NIA.
- In Marlborough Downs, project staff worked 'double time' in the final quarter of Year 3 in order to meet project objectives, and some staff were expected (in March 2015) to continue working on a voluntary basis until mid-May 2015.
- The (scheduled) ending of a wetland restoration officer post in the final quarter of Year 3 in Meres and Mosses, and subsequent creation of a combined post of wetland and farm adviser required additional work effort to ensure a smooth handover without loss of knowledge related to each post.

[138] Dark Peak; Dearne Valley; Greater Thames Marshes; Humberhead Levels; Marlborough Downs; Meres and Mosses; Morecambe Bay; Nene Valley; Northern Devon; Wild Purbeck.
[139] Note: this is a purely indicative figure for the assumed total cost of a FTE within an NIA partnership to illustrate the scale of help in-kind being provided within NIAs.
[140] 5,300,000 / 30,000 = 177 (total over 3 years) and 5,600,000 / 30,000 = 187 (total over 3 years).
[141] See: https://www.gov.uk/government/publications/guide-to-countryside-stewardship-facilitation-fund/guide-to-countryside-stewardship-facilitation-fund

- In Northern Devon, at the end of the grant funded period all NIA employed staff, except the project manager chose to move to new projects. The loss of staff expertise developed over the three grant funded years was considered a 'significant blow' as, even if new funding becomes available it will take time to gain new experience and develop new landowner relations through incoming staff.

**Source:** Based on information included in NIA partnership Year 3 quarterly Progress Reports

Volunteering was another important resource for NIA partnerships. As reported in sub-section 5.3.1 the NIA partnerships mobilised a large number of volunteers to contribute to their work. All NIA partnerships reported on the core indicator: *number of volunteer hours on NIA activities*. NIA partnerships also included volunteering within their financial claim forms to Natural England, and the data presented in this report is based on this reporting, as collated by Natural England. Volunteering was reported under four categories, see Box 5.3.

**Box 5.3: Categories of volunteering used for monitoring purposes**

- **General, unskilled labour**: e.g. supervised scrub clearance, ditch-digging, planting, basic administrative support.
- **Specialist, skilled, trained labour:** e.g. operations for which certificated training is required, such as operating dangerous equipment, driving off-road vehicles, using chemicals.
- **Specialist services**: e.g. supervising, training labour teams, surveys, counts, trapping, ringing, diving, printing, designing, photography.
- **Professional services**: e.g. consultants, lawyers, planners, engineers, accountants, auditors.

Table 5.2 provides an overview of the amount of volunteering by category across the NIA partnerships[142], and a breakdown of volunteering by type of work. The total amount of volunteering reported over the three grant funded years was 47,159 days, equivalent to approximately 68 FTEs per year[143]. Of this total, 86% (40,399 days) was under the general unskilled labour category. Of the other categories, 7% (3,209 days) of volunteering was specialist skilled trained labour and 6% (2,726 days) was specialist services. 2% of volunteering was professional volunteering (825 days).

The days under these categories are reflected in the type of work done by volunteers. Table 5.2 shows that 75% (35,336 days) of volunteers were employed doing implementation work, which included land management and improvement activities. 13% (6,208 days) of volunteers' time was on under monitoring and evaluation, data, surveys and mapping and research jobs. 8% (3,780 days) of volunteers' time was spent on jobs related to administration and office work.

These data show that the amount of volunteering rose each year, and more than doubled between Year 1 and Year 3. The largest increase was seen in specialist services from 106 recorded days in Year 1 to 2,438 days in Year 3. This included activities such as supervising, training, surveys, counts, trapping, ringing, diving, printing, designing, photography. This corresponds with the increase in NIA expenditure related to monitoring and evaluation, surveys and research, shown in Figure 5.7.

Box 5.4 shows data from NIA partnerships compared with national volunteering trends.

[142] For ease of reporting, volunteering was recorded by NIA partnerships as number of hours. The number of days volunteering was calculated based on an assumed 7 hour working day.
[143] 47,159 days total over three years = 15,570 average days per year / 230 days (= 1 x FTE) = 68 FTEs / year

**Table 5.2: Total number of days volunteering by category and job type[144]**

| Category | Days Year 1 | Days Year 2 | Days Year 3 | Total |
|---|---|---|---|---|
| General unskilled labour | 8,848 | 14,744 | 16,808 | 40,399 |
| Specialist skilled trained labour | 452 | 1,555 | 1,203 | 3,209 |
| Specialist services | 106 | 182 | 2,438 | 2,726 |
| Professional | 271 | 276 | 278 | 825 |
| **Total** | **9,677** | **16,757** | **20,726** | **47,159** |
| **Job type** | **Days Year 1** | **Days Year 2** | **Days Year 3** | **Total** |
| Administration, office work etc | 376 | 1,682 | 1,722 | 3,780 |
| Implementation | 8,256 | 12,200 | 14,880 | 35,336 |
| M&E, surveys and research | 462 | 2,272 | 3,474 | 6,208 |
| Communication, education and stakeholders | 576 | 590 | 651 | 1,816 |
| Unspecified or more than one category | 7 | 13 | 0 | 19 |
| **Total** | **9,677** | **16,757** | **20,726** | **47,159** |

**Source:** Based on financial summary of spend spreadsheets, collated by Natural England (dated 27 July 2015).

**Box 5.4: How do levels of volunteering on NIA activities compare with national trends?**

Across the NIA partnerships, an increase of approximately 114% was reported between the years April 2012 – March 2013, and April 2014 – March 2015.

Indicator 14a in the report on indicators for the England Biodiversity Strategy (Biodiversity 2020) (Defra, 2014) presents an *index of volunteer time spent on the natural environment for selected organisations in England* for the period 2000 - 2013. This national indicator shows that *"Between 2000 and 2013 the amount of time contributed by volunteers increased by 28 per cent but in the five years to 2013 it decreased by 16 per cent. It has remained unchanged between 2012 and 2013".*

The English Community Life Survey 2014-15 (HM Government, 2015b) reports that *'overall, volunteering rates in 2014-15 significantly decreased compared to 2013-14, and all years between 2001 and 2007-08. However, they have remained similar compared to 2008-09 and 2012-13, and significantly increased compared to 2009-10 and 2010-11'.*

## 5.3 Partnership working in the NIAs

This sub-section focusses on partnership working in the NIAs and in particular what worked well, what was challenging and the ways in which partnership working supported implementation. This sub-section also explores the ways in which NIA partnerships showed leadership and influence and the extent to which they have planned for the future. The legacy of the NIA partnerships is also discussed in section 9.

The Year 1 Progress Report considered the NIA partnerships' establishment and membership: seven of the NIA partnerships evolved from existing partnerships in their areas; in three, partnerships already existed but the NIA partnership represented a fundamental change in partnership structure or size; and the remaining two NIA partnerships were established to bid for the NIA grant funding. In all cases the NIA programme led to the broadening of partnerships to include more diverse partners.

[144] Note that all financial information was subject to a full check and verification by Natural England at the end of the grant funded period. This led to some revisions to figures reported previously in the Year 1 and Year 2 Progress Reports.

All NIA partnerships had management structures in place and each partnership: was supported by a memorandum of understanding (MOU) between all partners; had a partnership chair, with oversight and overall responsibility for the delivery of the partnership Business Plan; and had dedicated NIA project managers, responsible for day-to-day management of the partnership and delivery against agreed objectives. NIA partnerships also put in place monitoring and evaluation leads, responsible for ensuring monitoring and evaluation requirements were met, and coordinating data collection and reporting across all partner organisations. Establishing clear roles and responsibilities was a key success factor in effective partnership working.

The Year 1 Progress Report also provided context on the NIA partnerships, such as the number of partners in each NIA partnership and the types of organisation that are involved. This contextual information remained largely unchanged, and has therefore not been reported again.

### 5.3.1. What helped NIA partnerships work well?

Most NIA partnerships evolved from existing partnerships in their area, and this appears to have been an important factor in effective partnership working from the outset of the programme. The time and effort necessary to establish a functioning partnership was noted as a challenge to partnership working (see sub-section 5.3.2), and being based on existing partnerships meant that most NIA partnerships did not have to start from scratch in their area.

The NIA partnerships were required to develop Business Plans including shared visions and objectives, which formed the basis of their funding agreements with Defra and Natural England. Having shared visions and objectives in each NIA supported partnership working through better alignment of work-plans in different organisations and by providing common priorities for partners to work towards. One respondent to the survey stated that shared objectives *'removed some of the traditional protectiveness associated with delivery of targets and schemes'*.

By bringing new and diverse partners together, NIA partnerships were also able to improve relationships and break down barriers between partners who may not have worked together before and develop a shared understanding of partners' objectives, drivers and areas of mutual benefit.

Establishing clear structures for coordination, delegation and communication of tasks and roles across governance and delivery groups was also seen as important. NIA partnerships reported on the benefits of tiered or layered structures, for example, with responsibilities divided into financial, expert advice and project management, as one NIA partnership stated:

> *'The three tier structure ensures consensus throughout the partners, removes uncertainty and ensures that everyone is informed and involved. It is hugely helpful having a Natural England liaison and it would be difficult to see how the NIA would work without this'* [NIA 3].

Holding regular meetings between partners was also highlighted in the interviews and survey as supporting day-to-day partnership working. All NIA partnerships established some form of steering group or advisory panel, as well as creating working and delivery groups to focus on specific types of activity or objective. Positive aspects of steering and working groups identified by NIA partnerships included:

- Providing an overview of work within the NIA;
- Bringing a wide range of knowledge together;
- Bringing different people and partners together to strengthen delivery;
- Encouraging commitment from partners;
- Ensuring consensus between partners as everyone is informed and involved;
- Coordinating delivery; and,
- Enabling delivery and progress to targets to be tracked effectively.

A key aspect of project management in the NIAs was quarterly reporting to Natural England on the progress toward agreed objectives and on any problems encountered and issues to address. This

allowed a regular assessment of progress, and enabled NIAs to respond quickly to challenges, and provided Natural England with clear information on progress to inform the management of the wider programme, and target support or advice where needed. An overview and assessment of the NIAs progress towards their objectives is presented in Appendix 3.

### 5.3.2. What were the challenges to partnership working in NIAs?

All NIA partnerships were reported to function well, though some specific challenges to partnership working were identified. While the majority of NIAs evolved from existing partnerships all expanded (added new partners) and diversified their partnership base and the amount of time and effort required to establish a functioning multi-organisation partnership was identified as a challenge.

The survey and interviews in 2015 identified the following challenges to partnership working:

- Where NIAs evolved from existing partnerships existed this was seen as a *'real bonus'* as *'the investment needed to* establish *a new partnership is enormous'*, and takes a lot of time and effort [NIA 11].
- Other programmes (e.g. HLF landscape partnerships) were felt to have longer lead-in and development timeframes and that in NIA partnerships much of the necessary community and partner buy-in was developed during project implementation rather than before-hand.
- NIA partnership chairs reported that there was relatively little time available for those partnerships awarded government grant funding to develop their proposals into Business Plans and funding agreements, and this meant that, some NIA partnerships felt, the visions and objectives developed did not encourage as much group-delivery as may have happened otherwise. As one NIA noted, *'a longer period to collectively develop shared visions and objectives may have strengthened* [the] *partnership in the long-term'* [NIA 7].
- Throughout the three year programme, having sufficient time to effectively manage, in some cases quite large partnerships was noted as a key challenge for partnership working. Balancing time working on coordinating the partnership with the time required to plan and implement activities on the ground, and to build the relationships and trust with new partners and networks within a three year programme was considered a challenge by some NIA partnerships.

Further challenges to partnership working identified include:

- Collecting data from all partners by deadlines, especially for reporting and monitoring and evaluation purposes.
- The coordination and support that NIA project managers (and monitoring and evaluation leads) provided to some smaller partner organisations and community groups was more time consuming than expected. Examples of support required include: managing and reporting monitoring data; designing and delivering projects; organising contractors; and completing funding applications.
- Ensuring transparency and trust, and accommodating changing organisational priorities across partners and getting their buy-in, co-operation, support and engagement.

### 5.3.3. How did NIA partnership working support implementation?

The interviews and survey outcomes suggest that partnership working in NIAs helped support implementation in a number of ways.

Being part of a NIA partnership encouraged more joined-up working in the NIAs, as shared visions, objectives and work-plans helped partners to come together to share ideas and discuss solutions, which in turn improved delivery. One NIA partner said that the NIA partnership provided a *'great neutral position to forget individual priorities and focus on common goals'* and that the partnership *'got rid of a lot of the politics'* and allowed partners to work together rather than alone [NIA 9], moving away from quite separate working to a situation where people were working and talking together at all levels (from senior managers to people delivering on the ground). Joint working was

also supported by NIA partners sharing staff (e.g. examples were reported of staff from one partner organisation working in offices of other organisations, leading to sharing of knowledge and work-load), pooling of skills / expertise and equipment among partners working on common projects or activities. Such examples are indicative of a collaborative approach to working that helped to facilitate implementation.

A common term used in interviews was that NIA partnerships *'broke down barriers'*. Bringing together organisations and groups who may not have previously worked together, helped to increase understanding (for example, between farmers and environmental professionals), stimulate conversations and build relationships. In the interviews in 2014, one NIA partner stated that *'the link between farmers and conservation bodies is new and fabulous. At first, the large meeting tables of attendees were split by type…. However, now, meetings are genuinely mixed as people have worked together, they've got to know each other and are delivering benefits together'* [NIA 4]. One respondent to the survey in 2015 noted that they had *'sat around the table with people/groups I haven't worked with previously'* and another that *'we are now working with a broader range of partners than we would have done otherwise'*.

An additional benefit of more diverse groups working together within NIA partnerships is that different groups were able to learn from each other, and understand each other's needs, constraints, and expertise.

NIA project managers when interviewed in 2014 attributed increased in-kind contributions to the partnership approach. One reason given for this is that partners' sense of ownership of the NIA objectives increased their willingness to contribute. One interviewee said that *'[the NIA has] been so successful at attracting resources that people can see that the partnership is very effective and see value in working together and are, therefore, more happy to invest time into the partnership'* [NIA 10]. This finding was supported by the interviews and survey in 2015, with respondents noting the importance of the partnerships in increasing confidence about delivery, stronger working relationship and an impetus to drive-forward long-term plans.

### 5.3.4. NIA partnerships' leadership and influence

This sub-section provides examples of NIA partnership activities related to leadership and influence and discusses the ways NIA partnerships reached out to, and communicated with, people and groups in their areas. It also presents data related to enquiries received by NIA partnerships and visits to NIA websites, where these were reported. Other sections of this report relating to leadership and influence include sub-section 2.5 which summarises progress and achievements in becoming places of innovation and inspiration, and sub-section 3.5 which assesses NIA partnerships' research and innovation activities.

Box 5.5 includes examples of NIA partnership activities that relate to leadership and influence.

**Box 5.5: Examples of NIA partnership activities related to leadership and influence**

- In Dark Peak the NIA partnership promoted knowledge and understanding of emergent pathogens of dry heath communities within partner organisations involved in conservation. This was achieved through training for partners focussing on plant health and diseases, with the aim of enabling partners to survey and manage the Phytophthora[145] disease in future.
- Humberhead Levels NIA partnership used wetland habitat restoration projects to develop case studies of local community group and volunteer led conservation action and to promote these as a model for the development of similar groups in the area.
- The development of a fire management plan by the climate change and fire management plan working groups of the Wild Purbeck NIA led to this plan being adopted by the local fire service.
- Making connections with existing community groups to help improve delivery and encourage engagement in NIA partnership activities and objectives, for example the relationship between Birmingham and Black Country NIA partnership and the Birmingham Open Spaces Forum (2014), a

[145] For more information see: http://www.forestry.gov.uk/phytophthora

volunteer network organisation that aims to bring together people in Birmingham with an interest in open spaces.

- Dearne Valley NIA partnership worked with the local council promoting an innovative area for industry and wildlife using, for example, green roofs and SUDS; and developing good practice with the Environment Agency on the use of wash-land in flood control, holding water further up the catchment. The partnership also worked with the Landscape department at Sheffield University to develop communication materials, to raise the profile of the NIA and increase the number of volunteers.
- Developing close working relationships (including through formal partnership) with organisations already active in the NIAs was a means of expanding influence. For example Greater Thames Marshes reported that working closely with the Kent Wildlife Trust increased local community engagement. It also strengthened partnership working with the Essex Wildlife Trust participation in the Greater Thames Marshes NIA projects.
- A talk about the work of Nene Valley NIA partnership given at a Bumblebee Working Group meeting held at the University of Northampton in May 2014 attracted over 70 specialists from Britain and Ireland.

**Source:** Based on interviews with NIAs in May-June 2014, and a review of Year 2 and Year 3 quarterly Progress Reports.

There are various ways in which NIA partnerships reached out to and communicated with people, groups and organisations in their area. NIA partnership reporting provides evidence of activities in all NIAs relating to:

- **Community events and consultation** – social events that were open to all, or that target particular communities or groups. The most common community events identified were workshops, activity days such as combined 'walk & talk' events, forums, and consultation meetings.
- **Educational outreach** – engagement with local schools and other educational institutions. Examples of this type of engagement included field trips, field work and educational talks.
- **Media outreach** – disseminating information to local audiences. Activities included website articles, use of social media, newsletters / email bulletins and printed materials (posters, leaflets etc.).

Box 5.6 presents selected examples of outreach and communication by NIA partnerships.

**Box 5.6: Examples of outreach and communication by NIA partnerships**

- All of the NIA partnerships established dedicated NIA websites or webpages hosted on partner websites (e.g. Local Nature Partnership or Wildlife Trust).
- All NIA partnerships produced press releases, engaged with local media outlets (radio, TV and print media), for example Dearne Valley press releases resulted in 'several' newspaper articles in local newspapers during 2014-15.
- NIA partnerships also published newsletters and e-news bulletins, for example Marlborough Downs published quarterly newsletters and set up and email based mailing list to distribute news.
- NIA partnerships used social media such as Facebook, Twitter and Youtube. Birmingham and Black Country reported that social media was particularly successful in recruiting new volunteers to projects. Northern Devon produced a Youtube video in which local farmers discussed how the NIA helped them manage their land in a more wildlife-friendly way[146]. Meres and Mosses reported on the value of their Twitter feed in engaging with a wide audience, with their 'followers' including: farmers, volunteers, specialist and other businesses, media contacts, partners and funders.
- Events were organised by NIA partnerships to engage and inspire local people, such as: a photography competition (Greater Thames Marshes); film screenings (Wild Purbeck); festival planning (South Downs Way Ahead and Wild Purbeck); walk and talk events and workshops (Marlborough Downs); and a natural environment based quiz for schools (South Downs).
- Educational outreach was also important, such as engaging local children (and their teachers) in learning

[146] See: https://www.youtube.com/watch?v=q2wMk1s4dyc

about the natural environment while working on NIA activities. Examples include: the development of ecosystem services curriculum materials for local schools in Northern Devon; training for teachers in Wild Purbeck; and NIA site visits for local schools in, for example, Dearne Valley, Morecambe Bay and North Devon (see also section 2.3.2).

- Three NIAs were awarded funding to participate in a Sciencewise public dialogue project[147], which as part of its overall aim sought to enable the participating NIAs to '*review best practice and core lessons about how to work with communities and the public in the planning of more integrated landscape, biodiversity and ecosystems policies and associated management strategies'.*

**Source:** Based on interviews with NIAs in May-June 2014, a review of NIA websites and Year 2 / Year 3 quarterly Progress Reports.

Two monitoring and evaluation indicators provided potential measures of the leadership and influence NIA partnerships may have within their areas: *number of enquiries* (enquiries people make about the NIA and activities / events); and *audience reach* (the number of visits to NIA websites).

Two NIA partnerships, Birmingham and Black Country and Wild Purbeck, recorded data under the *number of enquiries*[148] optional indicator in the online reporting tool. The total number of enquiries over the three granted funded years was 171 in Birmingham and Black Country and the 190 in Wild Purbeck. Between Year 1 and 3 the number of enquiries fell in both NIAs, (from 69 to 47 in Birmingham and Black Country, and from 115 to 45 in Wild Purbeck), although the numbers were similar in Years 2 and 3. Birmingham and Black Country noted that the decline over the three years may reflect: higher information demand at the beginning of a new programme; that repeat enquiries from same people/organisations were not recorded; and that many requests were for funding/support, and these may have fallen due to knowledge that funding was available for three years only.

Birmingham and Black Country also recorded the purpose and source of enquiries. There was a shift over time towards enquiries about opportunities for cooperation and involvement (e.g. from potential volunteer groups). This kind of enquiry doubled between Year 1 and Year 3, suggesting the successful communication of such opportunities to a wider audience. The number of enquiries from different sources showed an increase from friends groups and individuals, suggesting that the NIA successfully reached out to these groups.

Table 5.3 presents data from the four NIA partnerships who reported against the *audience reach* optional indicator. In all four NIAs the number of website visits increased from Year 1 to 3, with an overall increase of 29,870 visits.

As well as recording website visits, these four NIA partnerships also reported on NIA project articles and radio or television programmes[149]. Examples reported include local radio and TV interviews and reports (e.g. about the Nene Valley and Northern Devon NIAs on BBC Radio Northampton and BBC Radio Devon), as well as articles about NIA activities in local newspapers and in one case a national newspaper article about the Nene Valley NIA in the Sunday Times[150].

[147] See: http://www.sciencewise-erc.org.uk/cms/nature-improvement-areas/

[148] 'Enquiries' are defined in this indicator as: those enquiries made to NIA partnership organisations specifically about the NIA, its activities or events (e.g. in person, and by phone, email or letter).

[149] The monitoring and evaluation indicator protocol defined these as the: estimated number of readers of articles specifically about the NIA project featured in newspapers, journals or other written media; and estimated number of listeners of radio or television programmes that specifically feature the NIA.

[150] See: http://www.thesundaytimes.co.uk/sto/comment/columns/charlesclover/article1495444.ece [subscription required]

**Table 5.3: Number of visits to NIA partnership websites**

| NIA | Year 1 (2012-13) | Year 2 (2013-14) | Year 3 (2014-15) | Change (Year 1 – 3) |
|---|---|---|---|---|
| **Greater Thames Marshes** | 480 | 1,176 | 1,268 | **+788** |
| **Humberhead Levels** | 1,026 | 2,123 | 2,265 | **+1,239** |
| **Nene Valley** | 9,541 | 4,393 | 26,247 | **+16,706** |
| **Northern Devon** | 1,448 | 8,967 | 12,585 | **+11,137** |
| **Total** | **12,495** | **16,659** | **42,365** | **+29,870** |

**Source:** Data recorded by NIAs in the online reporting tool for the indicator *'audience reach'*

### 5.3.5. In what ways have NIA partnerships planned for the future?

The initial NIA government grant provided financial support to the NIA partnerships for three years, April 2012 to March 2015. The NIA partnerships' Business Plans were required to consider their impact through to 2020. At the end of the grant funded period, the NIA partnerships produced a booklet - *Nature Improvement Areas 2012-15 - Making Space for Nature on a Landscape Scale* - which presented their key achievements over the three grant-funded years, and summarised their future plans (this is included in Annex 2). Based on this booklet Box 5.7 provides an overview each NIA partnerships' reported future plans. Section 9 includes further reporting on the legacy of the NIA partnerships.

All NIA partnerships considered how they will continue to deliver the NIA objectives in the future, focusing on the period to 2020. Based on information from interviews with NIA partnership chairs (January 2015) and NIA progress reporting, four NIA partnerships had already secured funding to support aspects of delivery at the end of the grant funded period and all NIAs were actively seeking funding to support their ongoing work.

Common sources of funding included the Heritage Lottery Fund (for Landscape Scale Partnerships) (mentioned by six NIA partnerships) and European Union funding (e.g. LIFE+[151] and INTERREG[152] (mentioned by four of partnerships). Other sources being investigated included the Esmée Fairbairn Foundation[153], local planning section 106 agreements and private funding / sponsorship (e.g. from Biffa and through a local Business Environment Network). One NIA (South Downs) was seeking to mobilise payments for ecosystem services through a visitor payback scheme (where visitors make voluntary contributions towards local environmental improvements) to support chalk grasslands restoration. In January 2015 Defra announced the Countryside Stewardship facilitation fund and groups formed from four of the 12 NIAs were awarded funding when the results of the first round of facilitation funding were announced in July 2015[154].

NIA partnerships were also exploring other ways to support ongoing delivery of their objectives and principles: six NIA partnerships specifically referred to existing Local Nature Partnerships, or other established local natural environment focused partnerships, as being integral to continued delivery of NIA objectives after March 2015.

However, despite the expressed intent, the extent to which NIA partnerships will continue to deliver NIA objectives is not known. Interviews with NIA partnerships in 2014 suggested that while ongoing conservation work is expected in all NIAs, this may not be branded as delivering NIA objectives or the NIA approach in future. Three NIAs interviewed explicitly expressed that the NIA had developed a strong local identity. Ongoing monitoring and reporting would be needed to understand the extent to which NIA objectives have been delivered in the longer term.

[151] See: http://ec.europa.eu/environment/life/funding/lifeplus.htm
[152] See: http://www.interreg4c.eu/programme/
[153] See: http://esmeefairbairn.org.uk/
[154] See: https://www.gov.uk/government/publications/countryside-stewardship-facilitation-fund-successful-applications

**Box 5.7: To what extent have NIA partnerships planned for the future?**

- Birmingham and Black Country planned to continue to build strong partnerships and inspire people about nature. They plan to focus on publically-accessible sites and target interventions in areas of greatest need, including supporting communities to take responsibility for their natural greenspaces. The NIA partnership has secured funding to continue aspects of their work through the Esmée Fairbairn Foundation.
- In the Dark Peak, the ethos of landscape scale conservation will continue through existing partnerships in the Peak District and South Pennine Moors. Even though funding has not been secured (March 2015), the NIA project officer held meetings with the Local Nature Partnership board to discuss future collaboration.
- Continued funding (for one year) is to be provided for an NIA manager in Dearne Valley to deliver the next phase of the partnerships' vision. This funding has been provided by Dearne Valley Eco-vision and the project manager will be employed by the Yorkshire Wildlife Trust.
- Greater Thames Marshes created an Action Plan for 2015-2020, outlining priorities for delivery. Three European funding bids (INTERREG Stage 1, LIFE+, and Horizon 2020[155]) have been or are planned to be submitted in 2015 to support aspects of the work of the NIA, and the partnership established a formal link with the Local Nature Partnership.
- Humberhead Levels secured European LIFE+ funding to restore the Humberhead Peatlands National Nature Reserve. The NIA partnership has also applied to become a HLF Landscape Partnership. The Humberhead Levels Partnership[156] also integrated NIA ambitions into their Delivery Plan to 2020.
- There is a strong desire to continue with the biodiversity and outreach elements of the Marlborough Downs NIA project and the partnership were (March 2015) seeking funding to take the work forward.
- In the Meres and Mosses, the NIA partnership worked alongside an existing HLF Landscape Partnership, which will continue until 2017 working on some aspects of the NIA project objectives. The NIA partnership also led to the resurrection of an historic partnership; the Meres and Mosses Wetland Area Partnership, which will help take the NIA principles forward. It is hoped that the new Meres and Mosses Business Environment Network (launched November 2014) will be able to provide innovative funding sources (e.g. through sponsorship) for NIA activities.
- In Morecambe Bay some of the NIA project objectives will continue to be delivered through the HLF Landscape Partnership. The Morecambe Bay Local Nature Partnership also plans to deliver a series of smaller schemes and to seek additional funding to ensure future delivery.
- Nene Valley has produced a business plan for 2015-20, and is hoping to secure HLF Landscape Partnership funding to further develop the work of the NIA partnership.
- In Northern Devon the NIA partners developed a business plan for 2015-20, and planned to develop projects and fundraising to help support different aspects of this plan. Potential funding sources include a private sector waste and water company (Biffa) in relation to freshwater quality, the Countryside Stewardship facilitation fund, Environment Agency funding for culm grassland creation, the local catchment based approach partnership (CaBA), and a Heritage Lottery Funding through a local arts project.
- The South Downs NIA partnership are seeking funding to support ongoing chalk grassland landscape scale work through four major streams: Countryside Stewardship; Heritage Lottery Funding; European funding (e.g. LIFE+); and payments for ecosystem services restoration, through a visitor payback scheme (where visitors make voluntary contributions towards local environmental improvements).
- £1.7 million of funding is in the process (November 2015) of being agreed through a section 106 agreement in Wild Purbeck related to two character areas within the NIA. This funding will be used to provide continuity of staff and part match-fund future projects. The NIA partnership has agreed a future work plan and will continue to meet regularly. In addition, a stage 1 application has been made to EU INTERREG for future wetland work, including in the Purbeck area.

**Source:** Based on the NIA end of programme booklet and a review of Year 3 NIA quarterly reports

[155] See: http://ec.europa.eu/programmes/horizon2020/
[156] See: http://www.ywt.org.uk/what-we-do/creating-living-landscapes-and-living-seas/south/humberhead-levels-partnership

## 5.4 Monitoring and evaluation

Monitoring of implementation against agreed project objectives is required to understand if project outcomes are being achieved as expected or whether implementation approaches need to be modified to improve outcomes, and to develop a record of and communicate the effectiveness of a particular intervention.

This sub-section seeks to understand how effectively NIA partnerships monitored the implementation of their Business Plans, and the extent to which monitoring and evaluation supported implementation. Sub-section 3.1 provides an overview of the NIA partnerships' monitoring and evaluation process and requirements. A table summarising the NIA partnerships' monitoring and evaluation indicator selection is included in Appendix 1.

As described in section 3, the NIA partnerships monitoring and evaluation was structured using a monitoring and evaluation framework and was supported by Natural England, other government agencies (e.g. Environment Agency and Forestry Commission) and two external research contracts. This report is the final report of the NIA monitoring and evaluation Phase 2 project, which was preceded by a Phase 1 project[157] which scoped and developed the monitoring and evaluation framework. More information on support provided to the NIA partnerships is included in sub-section 5.6.

Even though it was inherent in the NIA initiative design, the experimental nature of the monitoring and evaluation framework indicators and online reporting tool developed for this purpose (and the fact that both were developed during NIA implementation) posed some challenges in completing monitoring (see Box 5.8). These challenges were particularly faced in Years 1 and 2 of the programme. Improvements made to the functionality and usability of the online reporting tool by the project team at the end by the of Years 1 and 2, the provision of additional guidance, additional direct support provided in Year 3 by the Natural England lead adviser for NIA monitoring and evaluation, and an improved system for managing and responding to NIA queries relating to the online reporting tool meant that the number of problems NIA partnerships encountered during Year 3 was reduced and monitoring or data-entry issues were quickly resolved.

The additional direct support provided by Natural England included: developing checklists of data availability and needs tailored to each NIA; identifying and delivering contingencies for example where externally provided data was not going to be available until after NIA partnership staff had left post; assisting in analysis of national data as an input to NIA reporting; providing hands-on support to NIA partnerships in their data entry to the online tool; and checking data entries and liaising with NIA partnerships as needed to ensure data were suitable for evaluation purposes.

Lessons from the experiences of NIA partnerships for the continued monitoring of the 12 initial NIAs (beyond the three grant funded years) and locally determined NIAs, as well as future environmental initiatives are reported in section 9.

During the interviews in May – June 2014 and Jan – Feb 2015 and discussions at the Year 2 monitoring and evaluation workshop (July 2014), NIA partnerships identified ways in which monitoring and evaluation contributed to effective implementation and provided additional benefits.

- **Understanding and communicating:** A 'key-achievement' reported during the Year 2 monitoring and evaluation workshop was that that due to the development of a rounded understanding of outcomes and impacts as a result of using the monitoring and evaluation framework and indicators, the values and figures collated (e.g. in relation to volunteering, or area of habitat managed) could be used to communicate change, publicise achievements and as an input to decision-making. A respondent to the survey noted that closer working

[157] Defra Research Project WC1029: Developing a framework for design, monitoring and evaluating pilot Nature Improvement Areas: Phase 1 Scoping Study. http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&ProjectID=17960&FromSearch=Y&Publisher=1&SearchText=nature improvement&SortString=ProjectCode&SortOrder=Asc&Paging=10#Description

with a variety of organisations raised the profile the local Biodiversity Record Centre and emphasised the need for data to inform management and future monitoring.

- **Data availability and sharing:** In the interviews held in May - June 2014 one NIA partnership said that there were *"huge amounts of data available for sharing,* especially *from partners involved in the NIA"*, and that *"the local Biodiversity Record Centre have been very helpful in monitoring and evaluation work"* [NIA 8]. Another NIA partnership reported that they supported the local Record Centre which improved data reporting and availability in the NIA [NIA 7].

  One NIA partnership also highlighted the value of monitoring as a basis for improved data sharing, and that the NIA partnership brought a broad spectrum of partners' data together, often in one place. For example, local habitat opportunity mapping was made available to everyone within the partnership [NIA 9].

- **Awareness and training:** Based on the interviews held in May - June 2014, one NIA partnership trained partners in monitoring and used this to support ongoing management of projects [NIA 6]. Although some partners required support in their monitoring work, the NIA partnership reported that they (partners) learnt from each other, and that much more data was generated, especially by groups who may not have done this before. The value of community involvement in monitoring and the increased awareness that this generated, was reported as a key achievement during the Year 2 monitoring and evaluation workshop.

The increased competency in monitoring and environmental record keeping was identified as a legacy of the NIA partnerships, and that links to the academic community were enhanced by involving universities and researchers in NIA monitoring activities.

NIA partnerships' expenditure on monitoring and evaluation is reported in sub-section 5.2.2.

**Box 5.8: Examples of challenges related to monitoring and evaluation**

- The monitoring and evaluation framework and protocols were reviewed and updated during Year 2, and in some instances this required NIA partnerships to collate and/or report data in different ways, including revising baseline and Year 1 data where appropriate.
- The monitoring and evaluation process and requirements on NIAs were, in some cases, more complex than expected and required greater resource than originally allocated in NIA Business Plans. One respondent to the survey described the monitoring and evaluation process as *'cumbersome'*.
- Some indicators were dependent on external or national data sources and were consequently limited by timetables or other restrictions beyond the control of the NIA initiative. This led to some data availability being a year behind NIA partnerships own monitoring data, for example Environmental Stewardship data, MENE (Monitor of Engagement with the Natural Environment) data, and data related to woodlands.
- NIA partnerships reported on challenges related to data collection, particularly where there was a need for numerous partner organisations data recording and reporting. The interviews with NIA partnerships in May – June 2014 identified that the collecting information from partners about in-kind contributions proved 'difficult' or was 'not being captured'. The main reason given for this was that project delivery often took precedence over monitoring and evaluation activities.
- The online reporting tool developed to record data for NIA partnership monitoring presented some practical and technical issues requiring resolution during Year 2 and Year 3. All specific technical issues raised by users with the online reporting tool were resolved by the project team, with support from Natural England.

**Source:** Based on interviews with NIAs in May-June 2014 and January-February 2015, the online survey of NIAs in early 2016, and record of the Year 2 monitoring and evaluation workshop.

## 5.5 Research and innovation

### 5.5.1. Sharing information and knowledge

Sub-sections 5.5.1 and 5.5.2 summarise the Progress and Achievements in relation to NIA partnerships' research, innovation, learning and sharing activities. Information reported in sub-

section 5.3.3 on how partnership working supported project implementation, sub-section 5.3.4 on NIA partnerships' leadership and influence, and sub-section 5.4 on monitoring and evaluation are also relevant to sharing information and knowledge.

Information exchange and learning happened in various ways within and between the NIA partnerships. As highlighted in sub-section 4.5.2, formal learning and knowledge exchange included two national NIA forums, which were high-profile events held in London, five NIA best practice events[158], as well as climate change adaptation workshops (led by Natural England). Four workshops were also organised under the Phase 2 monitoring and evaluation project, including two annual (in Year 1 and Year 2) monitoring and evaluation workshops, and working meetings related to the updated monitoring and evaluation indicator protocols and the online reporting tool. The NERC Biodiversity and Ecosystem Services Sustainability (BESS) Directorate at the University of York was also involved in a workshop for the NIA partnerships on developing indicators for monitoring regulating ecosystem services. These events provided opportunities for NIA partnerships to discuss and share experiences and establish connections between people, knowledge and practice. A dedicated NIA workspace was also set up on Huddle[159], which is an online sharing and collaboration tool that enables users to store and share files, discuss topics of interest, share a calendar of events and make announcements.

Further examples of NIA partnership activities that supported sharing of information and knowledge are included in Box 4.15 in sub-section 4.5.2. Areas of information sharing and learning commonly seen included: data and mapping; sourcing funding; HLS options; monitoring and evaluation; technical knowledge; and sharing best practice.

A partnership chair interviewee expressed that data was, previously, often *'kept behind lock and key'*, but that the NIA status had the effect of *'freeing'* data to be used across organisations. The NIA partnership was felt to have greatly increased data sharing and joint working to use and gain value from local data.

However, some challenges and issues related to sharing information and knowledge were also noted in the interviews with NIA partnership chairs, including:

- That the *'infrastructure for facilitating sharing and knowledge exchange has been a bit absent'* and that the majority of sharing was through personal contacts [NIA 11]. All NIA partnerships did however have access to the Huddle NIA workspace which has been designed specifically to support the exchange of knowledge and information.
- At the beginning of the NIA programme *'everyone was waiting for Natural England and Defra to do things to a certain extent (e.g. around Huddle and annual Forums), but there was no clear lead taken in this sharing role initially'*, though this has now happened in the last year or so (speaking in early 2015). [NIA 3]
- There was some best practice sharing between NIAs, but *'it has been a challenge to find time to do this, given how hard everyone has been working to deliver, and this may mean that opportunities were missed to share information / knowledge'*. [NIA 7]

### 5.5.2. NIA partnerships' contribution to research and innovation

Sub-section 5.5.2 provides a summary of NIA partnerships progress and achievements in relation to research and innovation.

Interviews were held with each partnership between December 2013 and January 2014 to identify research initiatives and other innovation activities that NIA partnerships were involved in. A separate report summarising these interview outcomes was produced and shared with all NIA partnerships[160]. Headlines from these interviews include:

[158] For more information see: http://publications.naturalengland.org.uk/publication/4553703239450624?category=7470149
[159] For more information and case studies see: https://www.huddle.com/industries/uk-government/
[160] The report *NIA research initiatives interview outcomes summary* (15 April 2014) was shared with NIAs through the NIA workspace on Huddle, and is available on request. Huddle link (log-in required): https://defra.huddle.net/workspace/16609188/files/#31402933

- Activities were coordinated or initiated across all NIA partnerships that either contributed to research or were innovative in nature.
- There was research and innovation across all the types of activity NIAs engaged in, with specific research relating to ecosystem services and practical habitat restoration or management and/or other land management techniques.
- Four NIA partnerships included universities among their partners[161] and 11 of the 12 NIA partnerships reported on research related to the objectives of the NIA partnership being undertaken in collaboration with universities or research institutes.
- Innovation was also seen in relation to engaging with the public and stakeholders, such as farmers and landowners, often in the context of changes to land-use associated with restoration or habitat creation (e.g. farm focus group and a farm advisory project in Greater Thames Marshes).
- Three NIA partnerships[162] were awarded funding to participate in a Sciencewise public dialogue project[163], with the objective of helping the NIA partnerships explore how to *'embed public dialogue in the NIA local planning process'*. This project had the overarching aim to *'enable NIA partnerships to take evidence-based local policy decisions, dealing with varied and novel scientific and technical information and associated complexity and uncertainty informed by public opinion; review best practice and core lessons about how to work with communities and the public in the planning of more integrated landscape, biodiversity and ecosystems policies and associated management strategies.'* The final reports from this project were published in March 2015. Box 5.9 provides a brief summary of some of the key messages from the final report on the Evaluation of public dialogue in England's Nature Improvement Areas (Bennet, R., 2015)

### Box 5.9: Learning from the Sciencewise public dialogue evaluation

**NIA public dialogue activities**

Exploring innovative ways of engaging with the public, increased understanding of public dialogue and the process of facilitating public participation in local decision-making were the main outcomes noted in the Sciencewise public dialogue evaluation. As one of the NIA partners summarised *'it* [the public dialogue] *has fundamentally changed the way in which we approach communities for the better'.*

The range of innovative public engaging activities included:

- A film promoting the landscape and a Google Earth tour that enabled workshop participants to explore their landscape virtually and stimulate discussion in a creative way (Meres and Mosses).
- Site-based dialogues developing a future vision for nature and farming focused on an exploration of hopes and fears (Morecambe Bay).
- Art projects / installations (Morecambe Bay and Nene Valley).
- PloverFest: weekend of activities disseminating learning and engaging with youth, families and community groups (Nene Valley).
- Interactive website (Nene Valley).

Many of these processes/activities produced valuable materials that were seen as high quality outputs and useful tools for future engagement, becoming part of the legacy of the NIAs, for example a public dialogue guidance document produced by Nene Valley, setting out learning from the experience of public dialogue in the Nene Valley NIA.

**Example of delivering public dialogue**

The final evaluation report on the public dialogue projects noted that '*key intangible impacts of the dialogue include new relationships built between the NIA and local organisations, and a new appreciation on the part of two NIA staff members of the value of engaging a smaller sample of the public in depth in comparison to*

[161] Birmingham and Black Country, Nene Valley, South Downs Way Ahead and Wild Purbeck.
[162] Meres and Mosses, Morecambe Bay, Nene Valley
[163] See: http://www.sciencewise-erc.org.uk/cms/nature-improvement-areas/

*always engaging a larger number in a more superficial way'*. Further, the dialogue activity included stakeholders and the general public in an iterative way and followed this iterative dialogue with a workshop that brought stakeholders and members of the public together to discuss the public views and the results of the dialogue. This combined dialogue with both key stakeholders in the NIA and the wider general public *'seemed to give credibility to the dialogue in the eyes of both the NIA team and the facilitator, as it built awareness of the dialogue, set the public discussion in the reality of the stakeholders' lives, and returned the results of the public dialogue back to the stakeholders'*.

## 5.6 Support from Natural England, Defra and other agencies

This sub-section provides an overview of the support provided to the NIA partnerships by Natural England, Defra and other government agencies. Some reflections are also included on how NIA partnerships perceived the support provided, based on interviews with NIA partnership chairs in January-February 2015 and the survey of NIA partnerships.

Table 5.4 presents an overview of the amount of time (measured in FTEs / year) spent coordinating the NIA initiative and providing support to NIA partnerships by Natural England and the Environment Agency.

These data show that Natural England provided an average of almost 7 FTEs / year supporting the NIA initiative nationally, and the NIA partnerships locally. Natural England provided a core team of programme manager, programme adviser and monitoring and evaluation lead adviser. Through these core staff Natural England was responsible for the delivery and management of the NIA initiative as a whole, the financial administration of the NIA government grant, and coordination and support of the monitoring and evaluation. At the individual NIA level, Natural England provided a nominated lead officer to support the organisation on each NIA partnership, providing advice, tools and guidance and facilitating input from across the organisation. Input was provided from other parts of the organisation as and when required including administration of agri-environment schemes, land management, land use planning and other specialist advice. Natural England also managed the BIS / Sciencewise grant to support public dialogue and decision making with three of the NIAs.

The Environment Agency estimated that the total support they provided was approximately 1.7 FTEs / year, with the majority of this (1.6 FTEs / year) spent on local support to NIA project implementation. Natural England and the Environment Agency both noted that estimates of support were likely to be underestimates (for example Natural England time only included that coded to the NIA programme, and did not include other work programmes in NIAs even if these were contributing to NIA objectives e.g. Environmental Stewardship administration).

The figure for Natural England suggests that they provided slightly more support to the NIAs than foreseen at the national level, but less than foreseen locally: information provided in Year 1 indicated that the planned level of support for the NIA programme by Natural England was approximately three FTEs / year within the national NIA programme, and a local Natural England adviser for each NIA intended to be equivalent to approximately 0.5 FTE / year per NIA (a combined total of 9 FTEs / year). However, as noted the estimated actual local support provided by Natural England is considered an underestimate.

Defra provided funding for two external research contracts to support the monitoring and evaluation of the NIAs in two phases: Phase 1 (2011-12)[164] undertook the initial development of a framework for monitoring and evaluation of NIAs and of an online data capture and reporting system. Phase 2 (2012-15) undertook: further development, management and support of the monitoring and evaluation framework, indicator protocols and online reporting tool; development of

[164] Defra Research Project WC1029: Developing a framework for design, monitoring and evaluating pilot Nature Improvement Areas: Phase 1 Scoping Study. http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&ProjectID=17960&FromSearch=Y&Publisher=1&SearchText=nature improvement&SortString=ProjectCode&SortOrder=Asc&Paging=10#Description

approaches and provided support to the assessment of habitat connectivity, ecosystem services and social and economic impacts and contributions to wellbeing; evaluation and annual reporting against progress; research on evaluating against the counterfactual; and a scoping study on the monitoring and evaluation of the Countryside Stewardship facilitated fund. Section 1 provides more information on the Phase 2 project.

The types of support provided by government agencies and the external contractors included:

- High-level governance of the NIA initiative:
  - The NIA initiative was overseen by a Steering Group (established to have representation from Defra, Natural England, Forestry Commission, Environment Agency and Department for Communities and Local Government) and had links to: a Biodiversity 2020 related Terrestrial Biodiversity Group; a NIA and Local Nature Partnership Stakeholder Group; the Natural England Biodiversity 2020 / Natural Environment White Paper Programme Board; and the Natural England NIA Operational Working Group.
  - Each of these groups met regularly throughout the NIA grant funded period to oversee the overall progress of the initiative.
- National management of the NIA initiative:
  - The NIA initiative was managed by Natural England (as a programme), through a dedicated team led by the NIA programme manager, a lead adviser for monitoring and evaluation, and supported by administration and finance staff.
  - As part of the overall programme management, Natural England also coordinated five NIA best practice events and two annual NIA forums.
- Local support to NIA partnerships:
  - Natural England, Environment Agency and the Forestry Commission all provided support to NIA partnerships in managing and delivering their Business Plans. This support included practical input to the planning and implementation of NIA projects, advice in relation to planning and management of partnerships, participation in partnership activities such as steering group meetings and events.
- Support to the NIA partnerships' monitoring and evaluation work:
  - The provision of direct support for using the indicator protocols and online reporting tool including email exchanges, telephone discussions and visits to NIA partnerships; holding workshops to discuss and demonstrate the online reporting tool and indicators; development of FAQs and guidance documentation for example related to the use of BARS and the online reporting tool. In Year 3, the majority of direct support to NIA partnerships in their monitoring and evaluation work and use of the online tool was provided by the Natural England lead adviser for NIA monitoring and evaluation.
  - Natural England and JNCC (Joint Nature Conservation Committee) staff also provided direct support to NIA partnerships for technical queries (e.g. BARS use) and in understanding and interpreting national data sets (e.g. Environmental Stewardship, Priority Habitats Inventory).

**Table 5.4: Government agency support to NIA programme and partnerships (2012-15)**

| | Support: FTE / year | |
|---|---|---|
| | Natural England | Environment Agency |
| **National support** | | |
| Core team | 2.70 | 0.05 |
| Senior management | 0.19 | - |
| Support & analysis | 0.83 | - |
| **Total national** | **3.71** | **0.05** |
| **Local support** | | |
| Lead contacts | 2.26 | - |
| Other support | 0.90 | 1.61 |
| **Total local** | **3.16** | **1.61** |
| **Total support (2012-15)** | **6.87** | **1.66** |

**Source:** Based on data provided by Natural England and Environment Agency
**Notes:** Natural England data only include direct support to the NIAs: work covered by other programmes (for example administration of Environmental Stewardship agreements within NIAs) is recorded under those programmes so cannot be allocated to the NIAs. Due to availability of data estimated support from Environment Agency is also likely to be an underestimate.

The survey of NIA partners in early 2015 and interviews with NIA partnership chairs in January-February 2015 provided an opportunity for reflection on the three years and on the role of government agencies in supporting the NIA partnerships. Reflections on the support provided by government agencies included:

- One NIA partnership chair said that the statutory agencies *'have played a fantastic role in the NIA partnership in many ways - e.g. helped to mobilise additional funding, pulled out stops to support delivery and engaged with discussions about next steps'*. [NIA 1]
- Another noted that the *'role of Natural England staff in providing a bridge between the NIA and Defra, has been really valuable, having a local person to engage with has been a vital part of the process'*. [NIA 11]
- Others mentioned how supportive and flexible government agency staff were: *'I must add that the personnel within Natural England and Defra have been more than helpful, and very approachable on a pilot that was as new to them as us'* [NIA 4]; and the *'flexibility on part of Defra / Natural England, not being too prescriptive has been really useful, and has allowed for evolution and for things to change and develop on the ground'* [NIA 9].

Respondents to the survey of NIAs, noted that:

- *'The access to national, regional and local expertise has been most valuable and it is hoped that this continues'.*
- *'The NIA has given a stronger focus to our engagement and because it is being promoted nationally different teams are actively seeking to support and help which didn't happen before'.*
- [There has been] *'Much closer working with Forestry Commission and Environment Agency as well as with Natural England'.*
- *'We have more often been able [to] agree and implement mutually-advantageous joint projects with the canals trust, Environment Agency, geologists, local authorities, friends groups'.*
- *'We've been better able to share and coordinate work programmes and information, both with government and non-government organisations'.*

An additional reflection, mentioned by four of the 12 NIA partnership chairs during interviews in January-February 2015, was that the NIA initiative, and local NIA projects were implemented during a period of financial uncertainty, and when many organisations were having resources cut or facing

the prospect of staff and budget restrictions. The NIA partnerships are felt to have delivered *'in context of statutory agencies being less able to support this work on the ground'* [NIA 1], and helped to *'maintain a conservation infrastructure in the area, which has been very useful in a time when cash is tight and many organisations are suffering cuts'* [NIA 12].

NIA partnership chairs also reflected on the impact of national cuts and organisational restructuring in government agencies, for example the NIA programme operated in a period of *'a whole range of wider funding cuts relating to environmental work, [and] in the context of the wider restructuring of Natural England, this has not favoured the NIA programme'* [NIA 12] and that *'delivering a programme in middle of massive cuts has been very disruptive'* [NIA 2].

# 6. Evaluation of Biodiversity Outcomes and Impacts

## Key findings at the end of Year 3: Biodiversity

- Over the three grant funded years, **14.6% of the total extent of existing priority habitat within all NIAs was subject to new management actions** under the NIA programme.
- At the end of Year 3 the reported extent of land managed by NIA partners to **restore or create new priority habitat was 4,625ha** and the area managed to **maintain or enhance existing priority habitat was 13,664ha**.
- The NIAs also delivered actions on **225km of linear and boundary habitats**, such as rivers and hedgerows, and **78 individual site based habitats**, such as ponds.
- All of the NIA activities related to biodiversity represent a **contribution to the delivery of England Biodiversity Strategy outcome 1A[165], and the 4,625ha of new habitat created or restored represents 2.3% of the England Biodiversity Strategy outcome (1B**)[166] of an increase in priority habitats by at least 200,000ha[167].
- **Lowland Grassland and Heath** was the dominant habitat grouping where new management actions by NIA partners were underway or complete, with **nearly 20% of the total area of these habitats being subject to management**.
- NIA partnerships actively **improved data and knowledge of species status** in their areas through species surveys, and NIA partnerships initiated habitat management to meet the needs of species.
- Discussion and sharing of experience among NIA partnerships in developing and using local **indicators of connectivity was a useful outcome**, leading to a greater understanding among NIA partners of how connectivity might be improved and measured in practice.
- NIA partnerships undertook **research and tested approaches and shared experiences in delivering and measuring habitat connectivity** on a landscape scale.
- The **three-year period was generally too short to measure the longer term biodiversity impacts of the biodiversity activities carried out**. For example, even where appropriate habitat management has been put in place, it may take many years before the full effect of that action (i.e. impact) becomes apparent, such as improved habitat condition.

## Possible longer-term outcomes and impacts (2015-20)

- Positive biodiversity impacts for habitats and species could be realised, but this will depend on the nature of the management activity put in place and whether it requires ongoing management to prevent reversal into the future. More information on timescales of impacts in relation to habitats and species is included in Appendix 2.
- Improved data and knowledge of species status could have longer term benefits for those species.
- Habitat connectivity may be best considered and measured at the local level (rather than developing a single national comparative indicator) targeted at particular species/habitats.

[165] Defra (2012) *Biodiversity 2020: A strategy for England's wildlife and ecosystem services.* Outcome 1A: Better wildlife habitats with 90% of priority habitats in favourable or recovering condition and at least 50% of SSSIs in favourable condition, while maintaining at least 95% in favourable or recovering condition.

[166] Ibid. Outcome 1B: More, bigger and less fragmented areas for wildlife, with no net loss of priority habitat and an increase in the overall extent of priority habitats by at least 200,000ha.

[167] It is not possible to compare this to habitat creation and restoration in England as no assessment of change in priority habitat extent was made in the most recent (2014) England Biodiversity Strategy indicators report due to the adoption of a new priority habitat inventory in 2013.

## 6.1 Introduction

This part of the evaluation considers the extent to which, at the end of the three years of government grant funding (2012-15), NIA partnerships have contributed to biodiversity outcomes and impacts across the NIAs. In particular, it evaluates NIA partnership contributions to: priority habitats; focal and widespread species; the management of invasive and non-native species; and improved habitat connectivity.

### 6.1.1. Data sources used in this section

The evaluation of biodiversity outcomes and impacts is based on analysis of information and data from the following sources:

- the monitoring and evaluation indicators under the Biodiversity theme, as entered into the online reporting tool:
    - Habitat sub-theme: Extent of existing priority habitat managed to maintain / improve its condition (core); Extent of areas managed to restore/create habitat (core); Proportion of SSSIs in favourable or recovering condition (optional); Total extent of habitat (core).
    - Species sub-theme: Extent of habitat managed to secure species-specific needs (optional); Status of widespread species (optional); Status of focal species (optional); Control of invasive non-native species (optional).
    - Habitat connectivity sub-theme: Optional indicator of habitat connectivity (optional); Comparative indicator of habitat connectivity (core).

  Note: a table summarising the NIA partnerships' monitoring and evaluation indicator selection is included in Appendix 1.
- NIA partnership self-reporting on progress through quarterly Progress Reports and annual Progress Summaries (available in Years 1 and 2 only) as submitted to Natural England.
- Other NIA partnership generated documents and information such as: NIA partnership websites; and supporting documentation uploaded to the online reporting tool.
- Data provided by Natural England: nationally-derived data relevant to biodiversity and related ecosystem service proxies (e.g. priority habitat information). These were used as indicators by some NIA partnerships, but are derived across all NIAs.
- Data and evidence generated through the research to understand the difference the NIAs made over and above what would have happened anyway (counterfactual).

### 6.1.2. Summary of the evaluation of biodiversity outcomes and impacts

This section considers the evaluation questions set out in Table 6.1. This also presents headlines from the evaluation against each evaluation question. Further detail to support the evaluation headlines in Table 6.1 is provided in the key findings at the start of this section and the following sub-sections.

The evaluation examines the extent to which NIA partnerships completed delivery or achieved expected outcomes at the end of the three year government grant funding period. At the end of Year 3 NIA partnerships completed or had put in place most intended management activities in relation to biodiversity, although, based on NIA reporting, 666ha of planned restoration or creation of habitat had not been completed by the end of Year 3. However, most outcomes and impacts of the NIA partnerships' activities will not be seen until after the end of the NIA grant funded period (after 2015).

In evaluating biodiversity outcomes and impacts, it is important to recognise some caveats in interpreting the available data:

- Given the short timescale since the NIA partnerships were established, it is generally not yet possible to evaluate biodiversity impacts. This is due to time lags between action and impact. For example, even where appropriate habitat management has been put in place, it

may take many years before the full effect of that action (i.e. impact) becomes apparent, such as improved habitat condition, or improved status of key species. Further information on timescales of impacts for biodiversity outcomes is included in Appendix 2.

- The NIA partnerships reporting via the online tool recorded activities as 'planned', 'underway', or 'complete'. The term 'complete' means that the management activity (e.g. removing scrub, planting or seeding) has been completed, but does not mean that the intended biodiversity outcomes have been realised (e.g. new planting becomes established and new habitat formed, or a sustainable species population is established). Even if most actions were completed, in some cases many years of ongoing management activity (e.g. ensuring scrub remains cleared) or simply just time (e.g. for habitats to become established, species to return or thrive) may be required before a biodiversity outcome/impact becomes apparent or measurable.
- The nature of some of the data and/or the way in which some indicators were reported by NIA partnerships presented some challenges to aggregating data across NIAs; for example, the way in which habitat types were assigned, and the consistency with which habitat/species management actions undertaken by partners were recorded. Where possible data have been aggregated (for example by grouping habitats into broad types), and where there remain uncertainties, caveats are provided to figures, tables and in the narrative of this section.
- Similar challenges exist in determining the extent to which NIA partnership activity itself contributed to improvements or changes in habitats, species or connectivity, as opposed to management activity that may have already been underway prior to the NIAs being established, or other activity that was ongoing in the NIA, which may or may not have been recorded as a specific NIA activity.

**Table 6.1: Biodiversity evaluation questions and evaluation headlines**

| Questions<br>To what extent have NIAs contributed to… | Sub-questions | Evaluation headlines | Summary of counterfactual findings[168] |
|---|---|---|---|
| **Improved, restored or created habitats?** | 1. To what extent have NIA partnerships contributed to increasing the area of priority habitat through new habitat creation or restoration of relict habitat? | • NIA partnerships delivered actions to restore or create a total of 4,625ha of new priority habitats, which represents 2.3% of the England Biodiversity Strategy outcome (1B)[169] of an increase in priority habitats by at least 200,000ha[170] [Sub-section 6.2.1]<br>• 4,625ha is also equivalent to approximately 8% of the area of the New Forest or the area of greater than 35 times the size of Kew Gardens. | • Survey respondents and NIA partnership chairs expressed that there have been substantial improvement in habitats.<br>• 88% of survey respondents felt that the establishment of NIA programme has 'improved' (63% of respondents) or 'much improved' (25%) habitat quality and 87% that NIAs have 'improved' (66% of respondents) or 'much improved' (21%) habitat extent.<br>• Through interviews, most national stakeholders expressed the belief that the NIA government grant |
| | 2. To what extent have NIA partnerships contributed to maintaining or improving the | • NIA partnerships delivered actions to maintain or improve a total of 13,664ha of priority habitats.<br>• 13,664ha is equivalent to | |

[168] The full findings of the counterfactual are presented in the report in Annex 1. See Appendix 2 for a summary of the counterfactual method.
[169] Ibid. Outcome 1B: More, bigger and less fragmented areas for wildlife, with no net loss of priority habitat and an increase in the overall extent of priority habitats by at least 200,000ha.
[170] It is not possible to compare this to habitat creation and restoration in England as no assessment of change in priority habitat extent was made in the most recent (2014) England Biodiversity Strategy indicators report due to the adoption of a new priority habitat inventory in 2013.

| Questions<br>To what extent have NIAs contributed to… | Sub-questions | Evaluation headlines | Summary of counterfactual findings[168] |
|---|---|---|---|
| | condition of the existing priority habitat resource (including designated wildlife sites)? | approximately 24% of the area of the New Forest or an area greater than 103 times the size of Kew Gardens.<br>• 14.6% of the total area of priority habitat across all NIAs was subject to NIA partnership activities related to maintaining or improving habitat under the NIA programme. [Sub-section 6.2.1]<br>• While the data show a *decline* in 'Favourable' status of SSSIs across the NIAs, and an increase in 'Unfavourable recovering', this probably reflects survey effort on reassessing SSSIs nationally and within NIAs.<br>• Although NIA actions targeted improved status of SSSIs, it is not possible to conclude that the NIAs made a difference to the status of SSSIs, nor would that have been expected within the timescale. [Sub-section 6.2.3]<br>• All of the NIA activities related to biodiversity represent a contribution to the delivery of England Biodiversity Strategy outcome 1A[171]. | had improved coordination of activities and speeded up delivery, although some felt that habitat improvements might have happened anyway (e.g. through agri-environment options). |
| **Improved species status?** | 3. To what extent have NIA partnerships contributed to improvement in the status of species and improved habitats to support species specific needs? | • NIA partnerships delivered habitat activities targeting specific species needs.<br>• Species' status data suggest fluctuations which may or may not be related to NIA partnership activity – except in those examples where the NIA partnerships have reported specific programme delivery targeting species. [Sub-section 6.3.1] | • Survey respondents and NIA partnership chairs believed there to have been substantial improvement in the status of species.<br>• 68% of respondents felt that the establishment of NIA programme has 'improved' (58% of respondents) or 'much improved' (10%) species status. |
| | 4. To what extent have NIA partnerships contributed to the control of invasive or non-native species? | • NIA partnerships delivered habitat activities supporting specific species needs, though the extent to which these activities affected species status cannot be judged after only three years. [Sub-section 6.3.2]<br>• Only one NIA partnership provided data on the optional indicator 'control of invasive non-native species'. [Sub- | |

[171] Defra (2012) *Biodiversity 2020: A strategy for England's wildlife and ecosystem services.* Outcome 1A: Better wildlife habitats with 90% of priority habitats in favourable or recovering condition and at least 50% of SSSIs in favourable condition, while maintaining at least 95% in favourable or recovering condition.

| Questions<br>To what extent have NIAs contributed to… | Sub-questions | Evaluation headlines | Summary of counterfactual findings[168] |
|---|---|---|---|
| | | section 6.3.3] | |
| **Improved connectivity?** | 5. To what extent have NIA partnerships contributed to ecological connectivity and reducing habitat vulnerability to future change? | • NIA partnerships undertook research and tested approaches to delivering and measuring habitat connectivity.<br>• Due to the locally specific nature of habitat connectivity, a clear measure of the combined NIAs' contribution to enhanced connectivity was not possible to establish.<br>• Connectivity improvements are considered very likely: there is evidence of localised success in targeting specific species or habitat types, and as a result of increasing habitat condition and extent. [Sub-section 6.4] | • Survey respondents and NIA partnership chairs believed there to have been improvement in habitat connectivity.<br>• 86% of survey respondents felt that habitat connectivity has been 'improved' (67% of respondents) or 'much improved' (19%) in NIAs due to the establishment of the NIAs. |

## 6.2 Habitats

### 6.2.1. Area of habitat managed

Within the NIAs as a whole over the three grant funded years (2012-15), the total area of land managed by NIA partnerships under the NIA programme to restore or create new priority habitat, and the total area of existing priority habitats managed in order to maintain or improve its condition amounted to **4,625ha**[172] and **13,664ha** respectively. The 4,625ha of new habitat created or restored represents 2.3% of the England Biodiversity Strategy outcome (1B)[173] to increase priority habitats by at least 200,000ha[174].

The NIA partnerships also reported on linear habitat actions (for example hedgerows, rivers and riparian buffers, canals and wood margin habitats), with, over the three years, **10.5km** of new boundary and linear priority habitat restored or created, and **215km** managed to maintain or improve condition of existing habitat.

The data on priority habitat management indicates that all of the NIA partnerships were involved in the coordination and delivery of habitat management activity under the NIA programme within their areas. From the data, it was not possible to determine whether some or all of this activity might have taken place in the absence of the NIA partnerships (or the extent that NIA partnerships may have enhanced activities happening anyway); however surveys and interviews with the NIA partnerships completed as part of the counterfactual work (see Table 6.1, section 9 and Annex 1) suggest that the NIA partnerships were instrumental in much of this activity. Survey respondents and partnership chairs (through interviews) were of the view that without being part of the NIA programme, the essential partnership and collaborative activities that were fundamental to delivery of the proposed objectives would not have been established.

[172] The amount of restored or created habitat declined in Year 3 (from 7,451ha in Year 2) because some of this habitat becomes reclassified once restored/created into maintain/improve its condition.

[173] Defra (2012) *Biodiversity 2020: A strategy for England's wildlife and ecosystem services.* Outcome 1B: More, bigger and less fragmented areas for wildlife, with no net loss of priority habitat and an increase in the overall extent of priority habitats by at least 200,000ha.

[174] It is not possible to compare this to habitat creation and restoration in England as no assessment of change in priority habitat extent was made in the most recent (2014) England Biodiversity Strategy indicators report due to the adoption of a new priority habitat inventory in 2013.

Habitat creation, restoration and maintenance projects underway or completed do not in themselves provide evidence of positive impacts, only that the measures were put in place that are intended to deliver biodiversity impact in the long term; it may take many years for that impact to be realised.

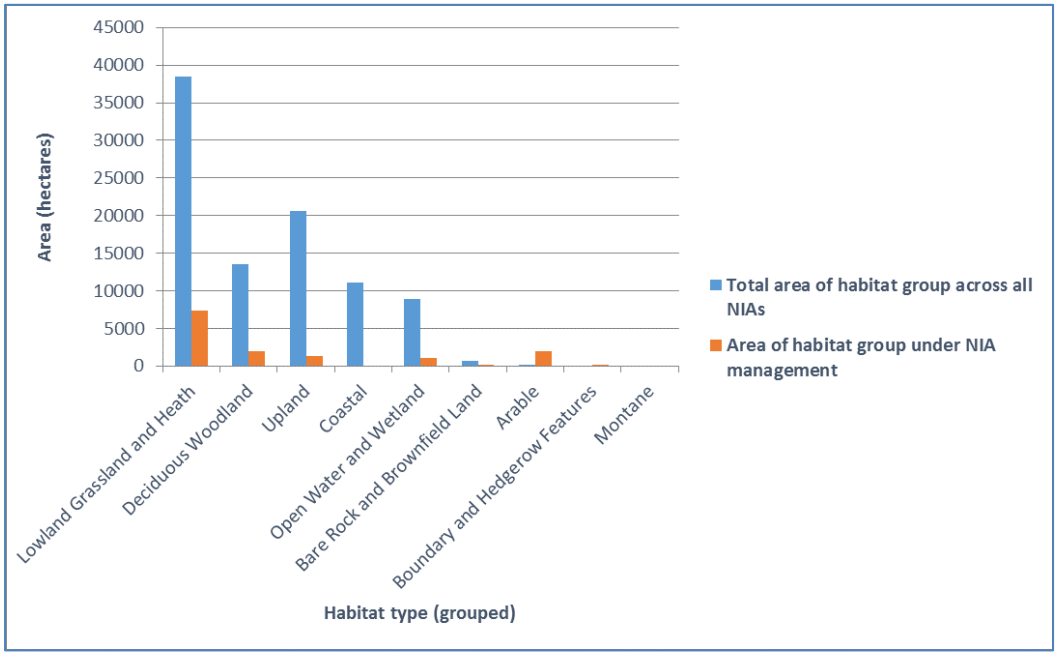
### 6.2.2. Total extent of habitat

NIA partnerships were given the option to update Natural England data on total extent of priority habitats within the NIAs (Priority Habitats Inventory (PHI), February 2015) or use this national data if preferred. Based on NIA data, the total extent of priority habitat across all NIAs was **93,533ha** at the end of Year 3. This compares to the Natural England PHI area of 110,450ha of priority habitat across all NIAs, a difference of 16,917ha based on NIA updates to these data, with the majority of this difference related to the area of deciduous woodland (NIAs reported a total area of 13,535ha compared to 29,171ha based on the PHI). The reason for this difference is not known, but could be due to improvements in the local area data based on NIA surveys.

The NIA partnerships' reporting on habitat maintenance or improvement activity (underway or completed) indicated that at the end of the grant funded period the total extent of existing priority habitat actions across the NIAs amounted to **13,665ha** completed or underway. This equates to **14.6%** of the total estimated extent of priority habitat across all NIAs based on NIA data.

Figure 6.1 illustrates the priority habitat types (grouped for ease of presentation) that were the focus of management across the NIAs through activities underway or completed as part of the NIA programme. Many of the management actions represented in Figure 6.1 are applied over small sites, but collectively contributed to a substantial proportion of certain priority habitat types across the NIAs (see Table 6.2). These data reflect the status at the end of Year 3. It should be noted that there was little NIA-related management activity for Coastal habitat, Bare Rock and Brownfield Land, Boundary and Hedgerow Features and Montane habitats.

**Figure 6.1: Summary of extent of habitat maintained or improved by NIA partnerships under the NIA programme compared to total priority habitat extent across all NIAs (based on broad habitat groups)**




**Source:** Data recorded by NIA partnerships in the online reporting tool

**Note:** The habitat types have been aggregated according to Natural England broad habitat groups[175], to simplify the presentation, but also to accommodate the use of slightly different descriptors for certain habitat types by the different NIA partnerships. Total area estimates are not available for some habitat types, such as Arable.

Lowland Grassland and Heath is the grouping of priority habitat types where there was most activity underway or complete in NIAs, with almost 20% of the total area of this habitat group in the NIAs being subject to NIA partnership maintenance/improvement actions. The dominance of this habitat group in these activities may reflect the nature and location of the NIAs and the dominance of this habitat type. This category includes purple moor grass and rush pasture for which 76% (1,437ha) of the total area across the NIAs (1,601ha) for this specific priority habitat type was subject to NIA habitat maintenance/improvement activity and most of this was in the Northern Devon NIA.

**Table 6.2: Proportion of priority habitat groups across all NIAs subject to NIA partnership activity**

| Habitat group | Total extent of priority habitat in all NIAs (ha)[176] | NIA maintenance / improvement activity (complete) (ha) | % of total NIA priority habitat with NIA maintenance / improvement activities |
|---|---|---|---|
| **Lowland Grassland and Heath** | 38,499 | 7,386 | **19.2%** |
| **Deciduous Woodland** | 13,535 | 1901 | **14.0%** |
| **Upland** | 20,572 | 1,333 | **6.5%** |
| **Coastal** | 11,117 | 0 | **0%** |
| **Open Water and Wetland** | 8,967 | 1,042 | **11.6%** |
| **Bare Rock and Brownfield Land*** | 718 | 52 | **7.2%** |
| **Arable**** | 122 | 1,932 | **n/a** (% not calculated as area of activity greater than reported total extent) |
| **Boundary and hedgerow features†** | *No data* | 17.91 | **n/a** |
| **Montane†** | *No data* | 0 | **0%** |
| **Total** | **93,533** | **13,664** | **14.6%** |

**Source:** Data recorded by NIA partnerships in the online reporting tool

* The percentage figure for this category is misleading as the 52ha of NIA activity is for brownfield land, but the 718ha for total extent in all NIAs represents limestone pavement[177].

** The reason for the much greater area of activity compared to reported total extent for arable is not known.

† Note that for these categories there are no recorded data for total extent.

### 6.2.3. Improvements to SSSIs[178]

Condition assessments of SSSIs in the NIAs provided the basis for the optional indicator *proportion of SSSIs in favourable or recovering condition,* which is also considered a proxy for priority habitat

[175] **Deciduous Woodland** includes**:** Upland Oakwood; Wet Woodland; Woodland; Wood-Pasture and Parkland; Traditional Orchards; Upland Birchwoods; and Lowland Mixed Deciduous Woodland
**Lowland Grassland and Heath** includes: Coastal and Floodplain Grazing Marsh; Lowland Calcareous Grassland; Lowland Heathland; Purple Moor Grass and Rush Pasture; Lowland Meadows; BAP Grassland; and Lowland Dry Acid Grassland.
**Upland** includes: Blanket Bog: Upland Heathland; Upland Fens Flushes and Swamps; Upland Calcareous Grassland; and Upland Hay Meadows.
**Coastal** includes: Maritime Cliffs and Slope; Saline Lagoons; Coastal Sand Dunes; Coastal Vegetated Shingle; Saltmarsh; and Mudflats.
**Open Water and Wetland** includes**:** Lowland Raised Bog; Lowland Fens; Eutrophic Standing Waters; Fen, Marsh and Swamp, Ponds; Standing Open Water and Canals; and Wetland.
**Bare Rock and Brownfield Land** includes: Open Mosaic Habitats on Previously Developed Land; Limestone Pavements; and Inland Rock Outcrop and Scree Habitats.
**Arable** includes: Arable and Horticulture; |Other habitats (Arable Field Margins and woodland)
**Boundary and Hedgerow Features** include: Hedgerows
**Montane** includes: Mountain Heaths and Willow Scrub

[176] Total extent figures are based on NIA reporting.

[177] *Bare rock and brownfield land* is a somewhat artificial category to capture similar habitat types that do not fit elsewhere, but care is needed in its interpretation, as indicated.

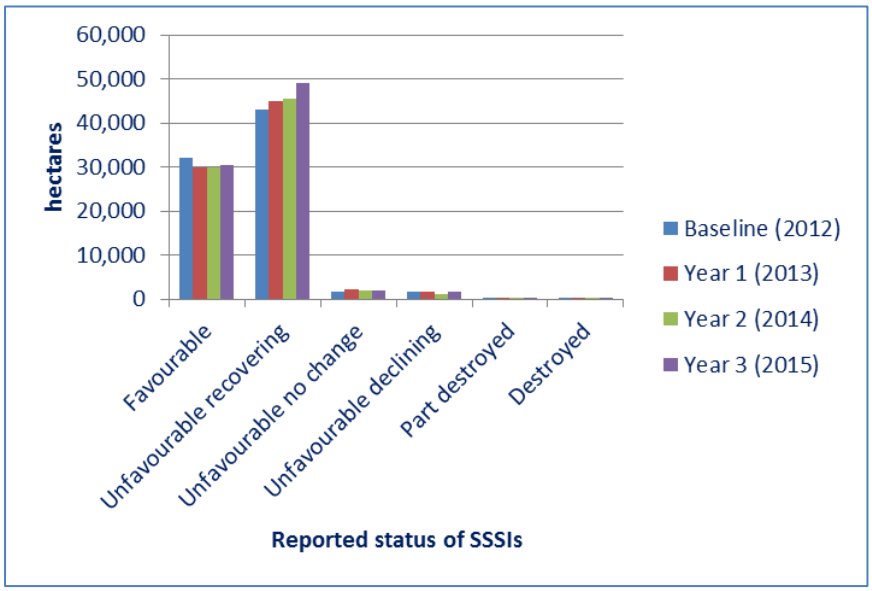
[178] Sites of Special Scientific Interest

condition outcomes (as opposed to priority habitat outcomes reported in sub-section 6.2.1). Humberhead Levels and Nene Valley were the two NIA partnerships to select this optional indicator for reporting. As shown in the Year 1 and 2 Progress Reports (CEP, 2013; 2014), the extent of SSSI within NIA boundaries was very variable. Humberhead Levels had 7,277ha of SSSI within the NIA boundary (15% of the NIA) and Nene Valley had 1,965ha of SSSI within the NIA (5% of the NIA). In contrast, almost all of the actions within the Dark Peak were on SSSI or multiple designations, covering 23,568ha (or 83% of the NIA), and were thus subject to condition monitoring.

Humberhead Levels started out at baseline with 93% of SSSIs in the NIA in favourable or recovering status and this rose to 94% by the end of Year 3. However, caution is needed in interpreting whether NIA actions had an impact on these figures because the SSSI reassessment effort was not consistent across the three years: 48, 18 and 16 SSSI units were reassessed in Year 1, 2 and 3 respectively, but the area of SSSI reassessed each year was 27%, 3% and 1% respectively.

Nene Valley started out at baseline with 99% of SSSIs in the NIA in favourable or recovering status and this rose to 100% by end of Year 3. However, caution is also needed in interpreting whether NIA actions had an impact on these figures because the SSSI reassessment effort was not consistent across the three years: 6, 10 and 16 SSSI units were reassessed in Year 1, 2 and 3 respectively, but the area of SSSI reassessed each year was 22%, 2% and 1% respectively. In this case while the number of units assessed increased each year the total area reassessed was much less. Figure 6.2 presents the condition data for SSSIs in all NIAs for the baseline (March 2012) and Years 1, 2 and 3[179]. The data indicate little change in favourable status over the three grant funded years compared to the baseline, although there was some increase in the area of SSSIs reported with unfavourable recovering status. This result is likely to reflect the share of SSSIs that are re-assessed annually on a rolling programme that will vary from SSSI to SSSI (and from NIA to NIA) as a site specific risk based approach is used.

**Figure 6.2: Change in SSSI condition assessment in all NIAs for baseline (2012), Year 1, 2 and 3**




**Source:** SSSI condition assessment data for NIAs, as collated by Natural England

Figure 6.3 and Figure 6.4 illustrate the area of SSSIs in the NIAs that were assessed each year, and the proportion of the total area in England and number of SSSI units. Figure 6.3 shows that the total area of SSSIs within NIAs reassessed over the three years of the NIA programme declined (from 12,039ha in Year 1, to 7,230 in Year 2 and to 2,679ha in Year 3) even though the proportion of SSSI units reassessed did not (Figure 6.4). Survey effort, in particular, varied considerably across the NIAs. The overall total figure for percentage area and units reassessed across all NIAs therefore

[179] Source: Natural England SSSI Condition Data (May 2015).

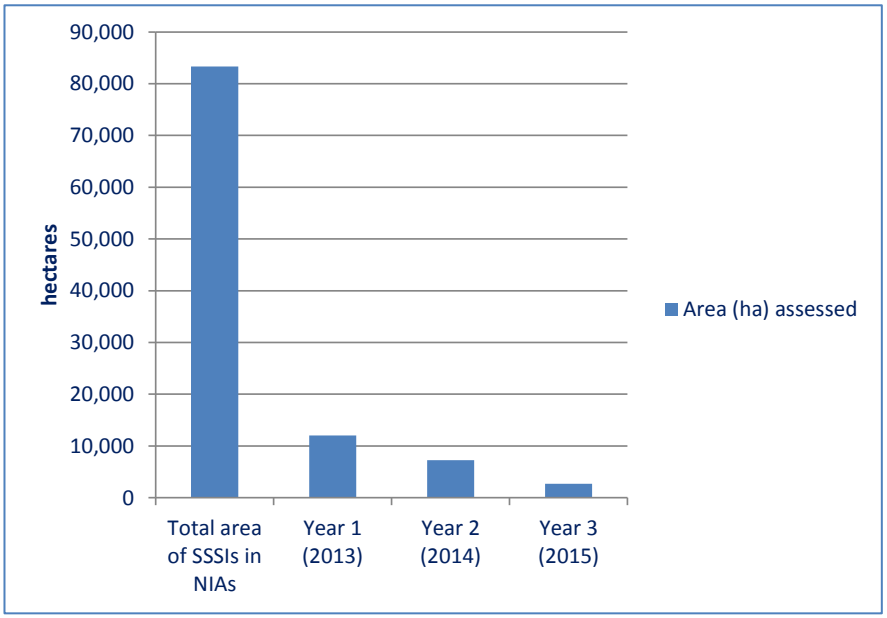
masks highly variable survey effort across the individual NIAs and habitat types. Furthermore, the total area of SSSIs within the NIAs actually increased by 6% in Year 3 (compared to previous years) at the same time as the total area of SSSIs in all England declined by over 1,000ha, so that the total area of SSSIs within NIAs increased in the last year as a percentage of all England SSSI area by 1% (from 7% to 8%) (Table 6.3).

### Table 6.3: Changes in area of SSSIs in NIAs and England baseline (2012) – Year 3 (2015)

| Year | Area of SSSIs in all NIAs (ha) | Area of SSSIs in England (ha) | % NIA SSSI area of England SSSI area |
|---|---|---|---|
| **Baseline (2012)** | 78,636 | 1,082,413 | 7% |
| **Year 1 (2013)** | 78,648 | 1,082,819 | 7% |
| **Year 2 (2014)** | 78,643 | 1,083,095 | 7% |
| **Year 3 (2015)** | 83,307 | 1,081,881 | 8% |

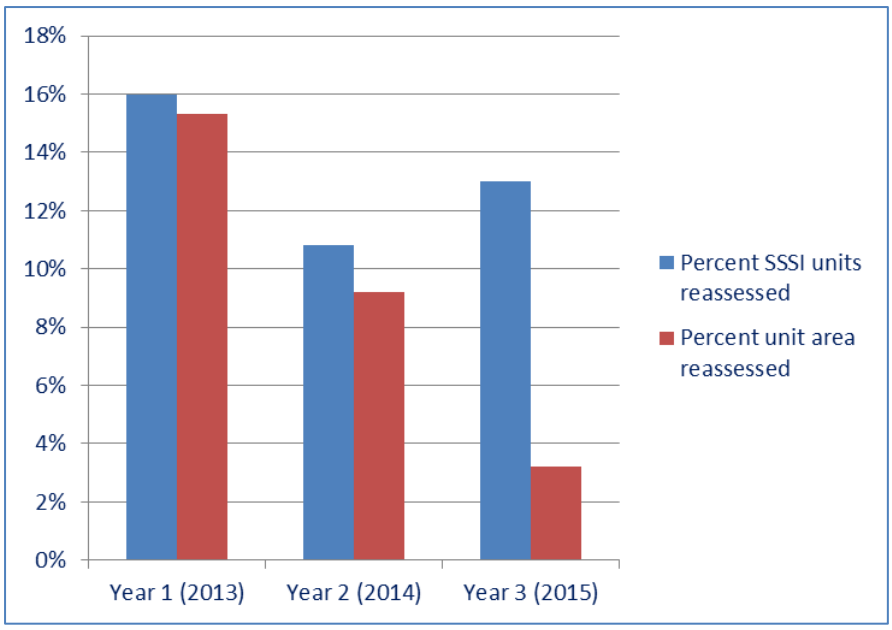
**Source:** Natural England SSSI Condition Data (May 2015)

### Figure 6.3: SSSI reassessment across all NIAs (area and number of units)




**Source:** SSSI condition assessment data for NIAs, as collated by Natural England

**Figure 6.4: SSSI reassessment across all NIAs (percentage of SSSI units and area within NIAs)**




**Source:** SSSI condition assessment data for NIAs, as collated by Natural England

Across all NIAs SSSI status is reported to have improved from 95% to 96% while over the same period in all England the percentage in favourable or recovering status declined by 1%, from 97% to 96% (Table 6.4). However, great care is needed in interpreting any apparent change in SSSI status in the NIAs compared to the rest of England since there are multiple factors at work, including highly variable survey effort and a change in the proportion of SSSIs within the NIA area.

**Table 6.4: Percentage of SSSIs in favourable or recovering status (NIAs and All England)**

| Year | All NIAs | All England |
|---|---|---|
| **Baseline (2012)** | 95% | 97% |
| **Year 1 (2013)** | 95% | 96% |
| **Year 2 (2014)** | 96% | 96% |
| **Year 3 (2015)** | 96% | 96% |

**Source:** SSSI condition assessment data for NIAs, as collated by Natural England

Habitat management activities, even if reported as completed (see sub-section 6.2.1), would not yet be expected, in any case, to have had much impact on the condition of these SSSIs over the three year timescale (and noting that active management is required in many cases to maintain condition, which would not lead to a status change in assessment). Except in circumstances where the condition was assessed as unfavourable, the initiation of the management activity might then lead to a short term change in the assessment to recovering status.

Conclusions on the influence of NIA partnership activity on SSSI condition status, therefore, should not be drawn from these aggregated data over the three years of the NIA programme. In the future, over a longer timescale, the data may be useful at the individual NIA level, but caution is needed when looking at aggregated data. A major shift in status of all SSSIs in NIAs as a result of NIA partnership action was not expected. This is because of the relatively small proportion of total area of priority habitat that was under NIA partnership activity.

## 6.3 Species status

Nine[180] NIA partnerships selected the optional indicator: *status of focal species* and four[181] the optional indicator: *status of widespread species*[182]. Some caveats on the use and interpretation of species' status data are presented in Box 6.1.

### 6.3.1. Status of widespread or focal species in NIAs

It is difficult to report conclusively on changes in the status of focal or widespread species: the data available do not provide a robust indication that the status of widespread or focal species in NIAs improved, although in many cases it is also not possible to say that it did not (see Box 6.1). With these caveats in mind, this sub-section presents some headlines based on the available species' data.

**Box 6.1: Caveats relating to species status data**

The status of many species remains unclear, as many of species are not systematically recorded on an annual basis. Bird and butterfly counts, based on national recording schemes (e.g. farmland bird, wetland bird counts, butterfly transects) are likely to provide the most robust baseline data and trend figures over time, but caution is needed in interpreting species status data over short timescales. The indicator protocols developed for the focal and widespread species indicators recognised that it would not be feasible to fully attribute change in status over the life of the NIA initiative directly to NIA partnership activity. Changes in status may have been subject to many other influences and are subject to lags and external factors outside the influence of the NIA partnerships, such as weather, disease, recruitment, dispersal or predation.

Both the focal and widespread species indicators were optional and while 10 out of 12 NIA partnerships reported on species, the number and type of species reported on varies, for example from a few bird species to tens of plant species. The difference in the number of species reported on, and differences in survey frequencies, make it difficult to aggregate NIA partnerships' data. For some species and in some NIAs no surveys were completed since baseline (or even before) and so statuses of species were reported as unknown. If surveying is only undertaken on a three or five year cycle, or ad-hoc, there may have been no reporting during the NIA programme timescale; this is dependent on the area and species selected.

Over a longer timescale, species status reporting may be meaningful at the individual NIA level. Where surveying is ongoing/annual, as it may be for some species, variations over 2-3 years can be quite misleading since they may be highly dependent on annual variation in weather and environmental conditions.

#### *Widespread species*

83 widespread species[183] were reported across the four NIA partnerships that chose this indicator. Based on data recorded by NIA partnerships in the online reporting tool:

- At **baseline:** 60 of these species (72% of the total number of widespread species reported) had a known status at baseline: 14 species (17% of the total) with an increasing status; 20 species (24% of total) with a decreasing status; and 28 species (34% of total) with a stable status. The remaining 24 species (29% of total) had unknown status at baseline.
- At the end of **Year 3:** 49 species (59% of the total number of widespread species reported) had known status: 22 species (27% of the total reported) had increasing status; 18 species (22% of the total) had decreasing status; and 9 species (11% of the total) had stable status.

[180] Birmingham and Black Country; Dearne Valley; Humberhead Levels; Meres and Mosses; Morecambe Bay; Nene Valley; Northern Devon; South Downs; Wild Purbeck
[181] Humberhead Levels; Marlborough Downs; Meres and Mosses; Dark Peak
[182] Note: status is a function of abundance and distribution, thus a species with an increasing status is considered to be more abundant and established over a larger area.
[183] The widespread species indicator aims to represent the status of individual widespread species used by relevant England Biodiversity 2020 Indicators, where NIA partnerships identify that suitable data exists and on-going data collection is feasible.

Box 6.2 provides further detail on the widespread species data, for example by focusing on some of the species where the condition status was known at the start of the NIA programme (baseline) and how their status changed.

**Box 6.2: Considering the widespread species data in more detail**

- Of those species with a known status at baseline *and* in Year 3 (43 species):
  - All were bird or butterfly species
  - 2 species were reported as stable at baseline and at Year 3 (Holly Blue and Small Blue butterflies) (Marlborough Downs)
  - 3 species were reported as increasing at baseline and at Year 3 – 2 birds (Jackdaw, Wood pigeon) and Ringlet (butterfly) (Marlborough Downs)
  - Of 5 species reported at baseline as decreasing, all 5 were still decreasing at Year 3 (all birds; Marlborough Downs).
  - Of 23 species reported as unknown status at baseline, 17 were still unknown at Year 3 apart from 6 bird species (all wading/wetland birds; Humberhead Levels) reported as stable.
- The data suggest a very mixed picture for those species that had known status at baseline and in Year 3.
- 16 species had a known baseline status, but unknown status Year 3.

Overall, 31 widespread species, therefore, were reported as increasing or stable at Year 3 (37% of total) compared to 40 species at baseline (48% increasing or stable). It is not possible to assign causation to this **decline** in overall species status to NIA partnership activity, although it might be expected that actions designed to support specific species would have contributed to improving their status. It is likely therefore that other factors have contributed to this decline. The challenge remains to maintain the appropriate management measures and survey the targeted species over a long enough time period.

### *Focal species*

95 focal species[184] were reported across the nine NIA partnerships that chose this indicator. Based on data recorded by NIA partnerships in the online reporting tool:

- At **baseline**: 46 of these species (48% of the total of focal species reported) had a known status at baseline: 13 species (14% of total) with an increasing status; 21 species (22% of the total) with a decreasing status; and 12 species (13% of the total) with a stable status. The remaining 49 species (52% of the total) had unknown status at baseline.
- At the end of **Year 3**: the number of species with known status was 67 (71% of the total), and of these: 52 species (55% of total) had increasing status; 11 species (12% of the total) had decreasing status; and 4 species (4% of the total) stable status. The remaining 28 species (30% of the total) had unknown status.

Box 6.3 shows more detail of the focal species data, for example, by focusing on some of the species where the condition status was known or unknown at the start of the NIA programme (baseline) and how their status changed.

**Box 6.3: Considering the focal species data in more detail**

- Of those focal species with unknown baseline status (49 species):
  - All 49 species had unknown status in Year 1, 20 of these continued to have unknown status in Year 2, and 14 continued to have unknown status at Year 3.

[184] The focal species indicator aims to show the trend in species of high conservation status that are the focus of actions or sensitive to drivers of change that are a specific concern within the NIA.

- Of these 49, 25 were reported as increasing at Year 3, 7 decreasing and 3 stable.

- Of those 32 focal species with known status at baseline *and* in Year 3:
  - 9 species were reported as stable at baseline, and all were reported as increasing at Year 3.
  - Of 12 species reported as increasing at baseline 10 continued to be reported as increasing in Year 3 and 2 were decreasing.
  - 11 species were reported as decreasing at baseline only 2 were reported as decreasing in Year 3, with 1 stable and 8 increasing.
  - 2 species were reported as decreasing at baseline *and* Year 3: high-brown fritillary (butterfly) (Morecombe Bay) and Freshwater pearl mussel Northern Devon)

Overall, 57 focal species were reported as increasing or stable at Year 3 (**60%** of total) compared to 25 at baseline (26% increasing or stable). It is not possible to assign causation to this **improvement** in overall species status to NIA activity, although it is reasonable to assume that actions designed to support specific species will have contributed to their improving status. The challenge remains to maintain the appropriate management measures and survey the targeted species over a long enough time period.

### *Species status: conclusions*

Based on the data available, and over a timescale of three years, it was not possible to identify clear trends in the status of species within the NIAs. The increases in the proportion of known species' status between baseline and Year 3 are likely to indicate the results of survey activity by NIA partnerships or the outcomes of national surveys. There is a notable difference between the reported status in NIAs for widespread and focal species: widespread species appear to show a decline in number reported with stable/increasing status (down from 48% to 37%) compared to improvement in focal species (up from 26% to 60%). These patterns may reflect the wider national picture of decline in widespread species such as for farmland birds and butterflies. It is not possible to determine whether NIA activity helped slow decline or helped improve the status of particular species. The fact that species indicators were optional for individual NIAs, and that choice of indicator species clearly related to the relevant habitats and wider environmental conditions present within each NIA, means that it is not possible to compare changes in species status across all NIAs at the initiative level. There was also huge diversity in the types of species chosen, from birds, butterflies, crustacea, etc. within both widespread and focal species.

Species status reporting put in place by NIA partnerships is likely to help establish longer term monitoring activity beyond the three years of grant funded NIA programme and improve the data base.

### *Habitats to support specific species' needs*

Sub-section 2.2.3 sets out NIA partnerships progress and achievements in supporting the needs of species. This includes habitat management activities targeted at species, such as (among many others): restoration of woodland and farmland habitats to support focal species (Dearne Valley); activities focusing on conditions for invertebrates in the Thames estuary (Greater Thames Marshes); breeding wader and tern habitat enhancements (Humberhead Levels); and grassland management for short-eared owls (Marlborough Downs).

While a total of 299ha of habitat across the NIAs were recorded as managed for specific species needs of this figure 258ha were recorded as managed for just one species: the Duke of Burgundy butterfly in the South Downs NIA. Similarly 84 bat boxes were installed, all in Birmingham and the Black Country.

It was not possible to identify trends in species status from these NIA partnership activities (see example in Box 6.4). The nature and scale of habitat interventions (see sub-section 6.2) together with activities and application of best practice that seeks to support target species are likely to have beneficial impacts on species status, especially in the longer term, but at a localised level.

**Box 6.4: Habitat management to support nightjar populations in Humberhead Levels**

Humberhead Levels undertook riparian habitat enhancement activity in part to help manage habitat to support nightjar populations. It was not possible to infer causality to any increases in nightjar populations over the timescale of the NIA programme. This is partly because the species was reported as already increasing at the end of Year 1, and there may be many other reasons for the change or local fluctuations. Populations will need to be monitored over a longer period of time before any conclusion can be drawn. It is worth noting that nationally, the nightjar has been increasing with some regional declines (BTO, 2010).

### 6.3.2. Control of invasive or non-native species

Although only one NIA partnership (Dark Peak) selected the optional indicator: *control of invasive non-native species*, other NIA partnerships engaged in activities focused on non-native or invasive species control (e.g. scrub and invasive tree removal in South Downs).

Reporting for Year 3 for Dark Peak showed 3.29ha of control of *Rhododendron* against a target of 1.2ha (non-native species). In Year 2, 2.43ha had been controlled, indicating that more than the target area had been achieved (restoration of native woodland at Blacka Moor by *Rhododendron* removal). Dark Peak also report 32.89ha of bracken (*Pteridium aquilinum*) control under this indicator by Year 3 (invasive species).

There are no data to provide further evidence of the influence NIA partnerships have had on the control of invasive and non-native species.

## 6.4 Connectivity

### 6.4.1. Ecological connectivity and increased resilience to future change

This section considers the extent to which NIA partnership activities and outputs have improved habitat connectivity. The principles behind the establishment of NIAs advocated a landscape scale approach to conservation action (Lawton *et al.*, 2010), and this is reflected in the objectives, Business Plans and implementation of activities within the NIA partnerships.

Development of a meaningful indicator of connectivity continued throughout the three government grant funded years, and the NIA partnerships contributed to the understanding of connectivity by actively testing and developing approaches to its delivery and measurement. Connectivity is difficult to measure, but this does not mean that improvements were not made to connectivity through NIA habitat creation and management activity (see section 4, and sub-section 6.2).

A new core indicator - *comparative indicator of habitat connectivity* - was developed and added to the monitoring and evaluation framework as part of the updates made in Year 2. The protocol suggested an approach, but also encouraged the NIA partnerships to develop locally appropriate approaches. It was used in a variety of different ways, consistent with the principle of NIA partnerships testing approaches, sharing knowledge and learning. This indicator sought to capture those actions that are considered by each NIA partnership, to be making a contribution to connectivity in their local context.

The suggested approach, which was generally adopted by NIA partnerships, was the selection of priority habitats where actions were undertaken through maintenance, restoration or creation. The extent of these actions was then weighted on the basis of the scale of intervention or a judgement of relative impact of the action on landscape scale habitat connectivity within the NIA landscape. There was some logic as to why different NIA partnerships may take different approaches, since connectivity will depend on the habitat types and species of a particular landscape.

Each NIA partnership used their own, locally determined weighting to report on contributions of their actions to connectivity, so it was difficult to make a quantitative aggregation of these data to report on the extent of NIA partnerships' contribution to connectivity. For example, South Downs NIA used the ratio of area of lowland calcareous grassland (ha) to distance to nearest neighbour (metres) (i.e. distance between patches) as an index of connectivity for lowland calcareous

grassland. The ratio of 11.03 was the same for both Year 2 and 3 for which it was reported; as a figure it is only meaningful in relative terms and if reported over a long time frame where a trend may be observed, i.e. the ratio should increase if connectivity is improved. Box 6.5 provides another example of a local approach to connectivity.

**Box 6.5: Measure of river habitat connectivity, Dearne Valley**

The approach to monitoring and reporting on this indicator of river habitat connectivity was based on the number of weirs removed or lowered along the Don that increased the connection for anadromous fish[185]. The more barriers removed, the better the connectivity for migrating fish. Data were provided by the Don Catchment Rivers Trust and the Environment Agency. The Dearne Valley NIA partnership surveyed more of the water courses within the NIA for man-made features and barriers, and these data will be mapped and used for future reporting.

The data reflected small changes in the number of features (fish and eel passes), that may have a positive impact on connecting lengths of the river systems and smaller tributaries. The Houghton eel pass was lost in floods, indicating that there may be both gains and losses of connectivity.

As reported in sub-section 6.2.2, many of the NIA partnerships habitat activities focused on improving connectivity, and habitat connectivity was an area of considerable research and innovation by the NIA partnerships themselves, and through joint-working with research and academic institutions (see sub-sections 4.5 and 5.5). While a headline figure of 'connectivity' was not possible (nor would it necessarily be very meaningful) the NIA partnerships' activities to the end of Year 3 most likely contributed to less fragmented places for wildlife[186], and increased the level of understanding of how to deliver, and measure, improvements to connectivity, especially where targeted on particular species.

The habitat connectivity indicator remained a challenge at the end of Year 3 and it is difficult to answer the evaluation questions meaningfully as to whether NIA actions had a significant effect on improving the habitat connectivity within the NIAs. It is questionable whether habitat connectivity in an abstract sense means very much because it is place and species specific. What is good for one species may be a barrier for another. A comparative indicator of habitat connectivity may not, therefore, be a particularly useful goal, though locally derived indicators may be useful where focused on specific species or habitats. It is also questionable how meaningful a standardised approach to comparing long term trends in habitat connectivity would be (e.g. distance between specific habitat type patches), not least because the focus of interest in such an indicator is on improving connectivity of the habitat under consideration, which might be at the expense of species for which that habitat is a barrier. Such an indicator/index might therefore give a false impression of enhanced connectivity while ignoring adverse impacts on other species. Creating an index that took this problem into account (net connectivity) would mask the real effects (accepting trade-offs) and risks loss of transparency.

The work undertaken by NIA partnerships on connectivity allowed wide debate on the role and nature of connectivity within the NIAs, how connectivity should be interpreted and whether connectivity is always the right conservation strategy e.g. positive and negative impacts on different target species. These discussions and their translation into the considerations of conservation actions are a useful outcome in themselves.

[185] Anadromous fish are those that migrate from the sea into fresh water to spawn, such as salmon.

[186] Increase in certain habitat extent and condition should in principle reduce fragmentation, although that in itself may not be sufficient for improved connectivity for a particular species; some habitats may also be barriers for some species while facilitating movement of others. Connectivity is, therefore, a relative concept and depends upon the species being considered.

# 7. Evaluation of Ecosystem Services Outcomes and Impacts

## Key findings at the end of Year 3: Ecosystem services

- All **NIA partnerships contributed to improved delivery of ecosystem services,** both through activities explicitly seeking to achieve this outcome (e.g. increased carbon storage / sequestration) and as an outcome of other activities, such as habitat creation and enhancement which also affect ecosystem service provision. NIA partnership activities and projects improved a range of:
  - **cultural services**, by: managing land for enhanced landscape character; increasing access to greenspace by creating and improving public rights of way and permissive paths; improving the quality of greenspace for enhanced visitor experience; and facilitating improved understanding and enjoyment of the natural environment (see also section 8 on social and economic wellbeing outcomes and impacts);
  - **supporting services**, for example by improving conditions for pollinators. NIA partnerships reported on specific projects, and wider habitat outcomes (see section 4) that are also likely to have improved conditions and provided additional habitat for pollinators; and
  - **regulating services**, through projects that changed land management, such as those which sought to improve water quality, increase carbon storage and sequestration and improve flood storage capacity and river flow management.
- **More sustainable agriculture and woodland management practices delivered provisioning services** (e.g. food, timber). This was achieved by contributing to an increase in the proportion of land under Environmental Stewardship and the proportion of woodland in active management:
  - Land under **Environmental Stewardship increased by 10.8% across NIAs**, compared to 7.2% across the whole of England over the period 2012 to 2015; and
  - By the end of Year 3 the **proportion of woodlands in active management increased by 5.5%** (compared to 4.8% nationally over the same period) across the 12 NIA partnerships. Note that these outcomes cannot be solely attributed to the work of NIA partnerships.

## Possible longer-term outcomes and impacts (2015-20)

- **Cultural services:**
  - Land (including habitats) management activities for landscape character will provide benefits in coming years, but such changes will need to be maintained to ensure longer-term outcomes and impacts.
  - Improvements to Public Rights of Way, permissive routes and accessible green space are likely to provide ongoing benefits, though will need to be maintained in order for people to access areas in the longer-term.
  - Improved understanding that people may have gained of the natural environment will endure, although some continued input may be required to ensure longer-term outcomes and impacts.
- **Supporting services:**
  - Areas managed for pollinators need to be maintained for continued outcomes and impacts. Achievements made by Dearne Valley partnership in their work with Local Authorities to reduce the frequency of mowing regimes to benefit pollinators is likely to continue in the longer-term due to the financial savings made.

- **Regulating services:**
  - Capital works undertaken by NIA partnerships for water quality and flood management improvements will continue to provide benefits (outcomes and impacts) in the longer-term, however, maintenance will be required to ensure works function adequately.
  - Advice to landowners on water quality remains into the longer-term, however unless that advice has been embedded, through landowners taking action for water quality, it is likely that ongoing advice will be required.
  - Habitats created and enhanced for carbon storage and sequestration will need to be managed and maintained in the longer-term for continued benefits realisation.
  - Primary research undertaken on carbon storage and sequestration by NIA partnerships (e.g. benefits of introducing green roofs in Brighton and Hove by South Downs NIA and peat carbon dating work undertaken with Meres and Mosses NIA) will provide a basis for future action.
- **Provisioning services:**
  - The benefits arising from more sustainable agricultural production achieved through Environmental Stewardship will last as long as the agreements last, unless landowners and managers go into Countryside Stewardship agreements or are committed to continuing sustainable agricultural practices on their land.
  - Achievements in the active management of woodlands, including for fuel and other products, need to be continued for longer-term outcomes and impacts.

## 7.1 Introduction

This part of the evaluation considers the ecosystem services outcomes and impacts achieved by the NIA partnerships at the end of the three years of government grant funding (2012-15). It uses the available evidence to provide an evaluation, of the extent to which cultural, supporting, regulating and provisioning ecosystem services improved or increased in the NIAs and the NIA partnerships' contributions to these improvements.

There is a direct relationship between ecosystem services and social and economic wellbeing outcomes and impacts (reported in section 8). Many of the benefits reported in section 8 could equally be referred to as ecosystem services. The reporting has been structured in this way in line with the monitoring and evaluation framework and indicators that it contains under each of these two themes.

### 7.1.1. Data sources used in this section

The evaluation of ecosystem services outcomes and impacts is based on analysis of information and data from the following sources:

- NIA data entry in the online reporting tool for the monitoring and evaluation indicators under the ecosystem services theme:
  - access to natural greenspace and/or woodland (optional); area of habitat supporting pollinators (optional); area of more-sustainable agricultural production (optional); contribution to carbon storage and sequestration (optional); contribution to water quality (optional); length of accessible PROW (public rights of way) and permissive paths created and/or improved (optional); measure of extent of and managed to maintain and/or enhance landscape character (optional); and percentage of woodland in active management (optional).

  Note: a table summarising the NIA partnerships' monitoring and evaluation indicator selection is included in Appendix 1.
- National data sources: Natural England supplied data on Environmental Stewardship schemes. Data from Natural England on woodlands in active management (datasets

covering the Forestry Commission National Forest Inventory, Forestry Commission Woodland in Management indicator, Forestry Commission Corporate Plan Performance Indicators and Woodland Indicators).

- Data and evidence generated through the research to understand the difference the NIAs have made over and above what would have happened anyway (counterfactual).

### 7.1.2. Summary of the evaluation of ecosystem services outcomes and impacts

This section considers the evaluation questions in Table 7.1. This also presents headlines from the evaluation against each evaluation question. Further detail to support the evaluation headlines in Table 7.1 is provided in the key findings at the start of this section, and the following sub-sections. The evaluation examines the extent to which NIA partnerships completed delivery or achieved expected outcomes at the end of the three year government grant funding period. However, due to the nature of the NIA partnerships interventions many outcomes and impacts of the NIA partnerships' activities and the NIA initiative will not be seen until after the end of the NIA grant funded period (see Appendix 2 for more information on timescales of impacts).

**Table 7.1: Ecosystem services evaluation questions and evaluation headlines**

| Questions<br>To what extent have NIAs contributed to… | Sub-questions | Evaluation headlines | Summary of counterfactual findings[187] |
|---|---|---|---|
| **Improved cultural services?** | 1. To what extent have NIA partnerships contributed to increasing the extent of land managed to maintain and / or enhance landscape character? | • Three NIA partnerships reported on land managed to maintain / improve landscape character.<br>• At the end of Year 3, a total of 10,615ha had been managed for landscape character across these three NIAs; about 7.8% of their total area.<br>• The area reported is a small fraction of the total area of the NIAs, but other NIA partnership activities are also likely to have contributed to landscape enhancement. [Sub-section 7.2.1] | • Through interviews, 7 of the 12 NIA partnership chairs expressed that the NIA programme, and individual partnerships, have improved understanding of landscape scale working, and raised its profile locally and nationally.<br>• 8 of 12 partnership chairs expressed through interviews that the NIA partnerships have enhanced the ability of partners to work at a landscape scale, improving outcomes. |
| | 2. To what extent have the NIA partnerships contributed to improving the length or accessibility of public rights of way (PROW) and permissive paths and improved access to natural greenspace and / or woodland? | • Five NIA partnerships reported on improvements to and improved accessibility of public rights of way and permissive paths.<br>• In these five NIAs, a total length of 51km of public rights of way and permissive paths were upgraded or created, with accessibility improved to a further 254km. [Sub-section 7.2.2]<br>• Limited change was reported in the accessibility of greenspace, although one NIA partnership opened up access to a nature reserve, and work on paths are likely to have improved access. [Sub-section | • Survey respondents from seven NIAs felt that there have been improvements to publicly accessible rights of way as a result of the NIA, while five noted no difference.<br>• 69% of survey respondents felt there have been improvements ('improved'- 63 % of respondents - or 'much improved' - 6%) in access and quality of green spaces.<br>• One survey respondent commented on: *"… the incredible work done by the NIA to improve the access for the Driving for the* |

[187] The full findings of the counterfactual are presented in the report in Annex 1. See Appendix 2 for a summary of the counterfactual method.

| Questions<br>To what extent have NIAs contributed to… | Sub-questions | Evaluation headlines | Summary of counterfactual findings[187] |
|---|---|---|---|
| | | 7.2.3]<br>• In addition to physical measures of accessibility (which are generally based on proximity), NIA partnership activities to mobilise volunteers, and engage local communities also provided people with access to the natural environment (see sections 4 and 8).<br>• At least six NIA partnerships undertook surveys of local people / visitors to inform future improvements to access to green space. [Sub-section 7.2.3] | *Disabled group. There is no question that without the NIA this would not have happened."* [NIA 4]. |
| **Improved supporting services?** | 3. To what extent have the NIA partnerships contributed to improving habitat for pollinators? | • Two NIA partnerships reported on the area of habitats supporting pollinators. Birmingham and Black Country NIA data showed an increase of approximately 4.6% (164ha) between baseline (2012) and Year 3. Marlborough Downs NIA enhanced 55ha of land with wildflower seed mixes as nectar sources over the three year period. [Sub-section 7.3.1]<br>• Specific activities (see sub-section 4.3.4) and wider habitat improvements across all NIA partnerships (see section 3) are likely to have improved conditions for pollinators. | • 65% of survey respondents felt there have been improvements ('improved' - 54% of respondents - or 'much improved' - 11%) in support for pollinators. |
| **Improved regulating services?** | 4. To what extent have the NIA partnerships contributed to water management? | • Five NIA partnerships reported on land management or watercourse improvement activities to improve water quality.<br>• 28,229ha were managed to improve water quality (end of Year 3), across the five NIA partnerships that reported on this.<br>• A total length of 18km of linear (river / watercourse) habitat was managed for improved quality (end of Year 3) in the three NIAs that reported this.<br>• Evidence is not available on the scale of improvements to water quality. [Sub-section 7.4.1] | • Survey respondents from 10 NIAs felt that there had been improvements to water quality as a result of the NIA, while two noted no difference.<br>• Survey respondents from 11 NIA partners felt that there had been improvements for flood management as a result of the NIA, although one NIA noted no difference.<br>• Through an interview one national stakeholder felt that the aligning NIA activities (in some NIAs) with Water Framework Directive (WFD) outcomes had helped gain extra financial support and facilitated joint working with the Environment Agency. |
| | 5. To what extent have the NIA partnerships | • NIA partnerships reported in different ways on works | • Survey respondents from nine NIAs felt there have |

| Questions<br>To what extent have NIAs contributed to… | Sub-questions | Evaluation headlines | Summary of counterfactual findings[187] |
|---|---|---|---|
| | contributed to increase in carbon sequestration? | undertaken for carbon storage and sequestration: Dark Peak managed 427ha of land for carbon benefits; Dearne Valley calculated that 4,179tCO2e would be sequestered over 100 years from whip planting; Humberhead Levels recorded that 859ha of land had been re-wetted to increase carbon storage; and Morecambe Bay estimated future carbon storage and sequestration to be 3,073tCO2e per year (as estimated after 10 years post restoration) for raised bog restoration work and woodland management. [Sub-section 7.4.2] | been improvements in carbon storage and sequestration as a result of the NIA, but three NIAs noted no difference. |
| **Improved provisioning services?** | 6. To what extent have NIA partnerships contributed to sustainable agricultural production? | • Land under Environmental Stewardship increased by 10.8% across NIAs compared to 7.2% across the whole of England from 2012 to 2015. It was not possible to attribute all of this change to NIA partnership activities. [Sub-section 7.5.1] | • Survey respondents from 11 NIAs felt that there have been improvements in sustainable agriculture as a result of the NIA, while one NIA noted no difference.<br>• The nature of the non-ELS dataset meant that for both the trajectory analysis and the matched comparison areas there are too many other confounding factors to draw clear conclusions as to whether the NIAs made any difference to uptake of agri-environment options. |
| | 7. To what extent have NIA partnerships contributed to increasing the area of woodland under active management? | • By the end of Year 3 the proportion of woodlands in active management increased by 5.5% (compared to an increase of 4.8% nationally over the same period) across the 12 NIA partnerships. It is not possible to attribute all of the change observed to NIA partnership activities. [Sub-section 7.5.2] | • Survey respondents from seven NIAs felt that there have been improvements in the provision of woodland products as a result of the NIA, although partners of five NIAs noted no difference. |

## 7.2 Cultural services

This section considers the extent to which NIA partnerships have contributed to cultural services over the three grant funded years (2012-15). There were three cultural services monitoring and evaluation indicators: *improvements to landscape character, length and accessibility of public rights of way and permissive paths, and accessibility to natural greenspace and / or woodland*. NIA partnerships also contributed to cultural services through activities such as improvements to people's experience of natural places and their understanding of the natural environment, as well as increased engagement in the natural environment, such as through volunteering.

### 7.2.1. Improvements to landscape

Three NIA partnerships[188] provided data for the optional indicator *extent of land managed to maintain and / or enhance landscape character*.

By the end of Year 3, a total of 10,615ha was reported as having been managed for landscape character across these three NIA partnerships. This area represents 7.8% of the total area of these three NIAs (136,823ha), and includes 1,705ha in Morecambe Bay, 7,126ha in the South Downs and 1,784ha in Wild Purbeck. The types of habitat enhanced in these three NIAs included woodland, wetland, grassland and heathland. All of these improvements were undertaken by the NIA partnerships.

While the area reported was comparatively small, this represents the reporting of only three of NIA partnerships, and other NIA partnership activities (e.g. habitat restoration, creation and enhancement) are also likely to have contributed to landscape improvements.

### 7.2.2. Improvements to public rights of way (PROW) and permissive paths

Five NIA partnerships reported on the optional indicator *length of public rights of way (PROW) and permissive paths created and / or improved*. These data are summarised in Table 7.2. NIA partnership activities created or upgraded a total length of 51km of public rights of way and permissive paths, with accessibility improvements to a further 254km[189].

**Table 7.2: Cumulative length of Public Rights of Way (PROW) and permissive paths created and /or improved to the end of Year 3**

| NIA | Length of new PROW created (km) | Length of footpath upgraded to bridleway (km) | Length of permissive route created (km) | Length of improved accessibility of PROW (km) | Length of improved accessibility of permissive paths (km) |
|---|---|---|---|---|---|
| **Dark Peak** | 0 | 0 | 0 | 20.7 | 0 |
| **Dearne Valley** | 9.56 | 6.48 | 0.96 | 10.64 | 0.5 |
| **Meres and Mosses** | 14.86 | 0 | 0 | 30 | 0 |
| **Marlborough Downs** | 0 | 0 | 15.93 | 104.82 | 2.19 |
| **Humberhead Levels** | 0 | 0 | 3.18 | 80 | 5.5 |
| **Total** | **24.42** | **6.48** | **20.07** | **246.16** | **8.19** |

**Source:** Data from NIA partnership reporting in online tool

### 7.2.3. Access to and quality of greenspace / woodland

Four NIA partnerships[190] reported on the optional indicator *access to natural greenspace and / or woodland.* These data were recorded under different features, including: area (ha) of accessible greenspace / woodland; population (%) with access to greenspace / woodland; and population (%) against selected Access to Natural Greenspace Standards (ANGSt).

Across the NIA partnerships which reported on this indicator, most data showed little[191] or no change between baseline and the end of Year 3. The only improvement in access to natural greenspace was reported by Northern Devon where the area of accessible natural greenspace increased due to the opening of a nature reserve in Year 2 resulting in an increase in the percentage of the population in the NIA with access to natural greenspace compared to baseline (no further changes were reported in Year 3).

Based on information available from quarterly Progress Reports and NIA partnership monitoring and evaluation supporting documents, NIA partnerships also all sought to improve the quality and use of

[188] Morecambe Bay, South Downs and Wild Purbeck.
[189] These figures are based on reporting through the online tool by Dark Peak, Dearne Valley, Meres and Mosses, Marlborough Downs and Humberhead Levels.
[190] Birmingham and Black Country, Nene Valley, Northern Devon and Greater Thames Marshes.
[191] Small and negligible differences in figures between years resulted from improved and updated information.

greenspace. At least six NIA partnerships[192] carried out surveys of visitors' or local peoples' experiences of or attitudes towards the natural environment in their areas.

### 7.2.4. Improved understanding of the natural environment

NIA partnerships sought to improve understanding of the natural environment by engaging local people and groups in their work and by organising events, such as festivals, workshops, guided walks, talks, training events and learning activities with school groups (see sub-section 4.3.2 and sub-section 5.3.4 for more information).

Based on the available evidence it is not known whether people in the NIAs gained an improved understanding of the natural environment from such interventions, although it seems likely that these events contributed to the participants' knowledge and awareness.

## 7.3 Supporting services

### 7.3.1. Area of habitat supporting pollinators

Two NIA partnerships[193] recorded the *area of habitat supporting pollinators*. Over the three year period across these two NIAs, an additional 219ha was managed specifically for pollinators.

Birmingham and Black Country NIA recorded the change in area of priority habitat managed for pollinators; this rose by approximately 4.6% (164ha) between baseline (2012) and Year 3 (from 3,592ha at baseline to 3,756ha at the end of Year 3). Marlborough Downs NIA recorded the area of land with planted nectar mixes and enhanced with wildflower seed mixes, which amounted to 55ha over the three year period.

Habitat improvements reported in sub-sections 4.2 and 6.2, as well as specific activities within NIAs to improve conditions for pollinators (reported in sub-section 4.3.4) will also have helped to support pollinators.

## 7.4 Regulating services

This section considers the extent to which NIA partnerships improved regulating services. Through their activities, NIA partnerships: made improvements to water quality; increased carbon storage and sequestration; made improvements to flood storage potential; and took action for climate change adaptation.

Examples of activities of NIA partnerships to improve regulating services are presented in Box 4.9 in sub-section 4.3.5.

### 7.4.1. Improvements to water quality

NIA partnerships' activities to improve water quality were recorded under the optional indicator *contribution to water quality*. Seven NIA partnerships[194] reported a wide range of activities under this indicator.

Across five NIAs[195], 28,229ha[196] of land (approximately 12% of their total area) was managed for water quality improvements using a range of techniques over the three year period; for example, soil aerators were used to improve water quality across 291ha in Northern Devon NIA.

Three NIA partnerships[197] recorded length of habitat managed for improved water quality. By the end of Year 3 this amounted to nearly 18km[198] of watercourses.

[192] The following NIA partnerships are known to have completed surveys: Dearne Valley; Greater Thames Marshes; Humberhead Levels; Marlborough Downs; Nene Valley; Wild Purbeck. It is likely that all other NIA partnerships have also sought to understand community and visitor experiences / attitudes, for example through meetings and workshops.
[193] Birmingham and Black Country and Marlborough Downs.
[194] One of these, Dearne Valley, provided data collated by the Environment Agency to show the chemical and biological quality of the water at five key sample points in the NIA. These data cover baseline and Year 1 only and are difficult to interpret for monitoring purposes.
[195] Dark Peak, Northern Devon, South Downs, Nene Valley, Wild Purbeck.
[196] This figure excludes Year 3 data for Nene Valley as these were not reported in the online tool.

### 7.4.2. Climate change mitigation and adaptation and water management

This sub-section reports on NIA partnership outcomes and impacts in relation to carbon storage and sequestration, flood-risk management and adaptation to climate change. Carbon storage and sequestration data were recorded by NIA partnerships in different ways in the online reporting tool. At the end of Year 3 the data indicated that:

- Dark Peak had managed 427ha of land for carbon benefits.
- Dearne Valley estimated that 4,179t$CO_2$e[199] would be sequestered over 100 years from whip planting.
- Humberhead Levels re-wetted 859ha of land to increase carbon storage.
- Meres and Mosses identified that 4,158ha of habitat across the NIA contribute to carbon storage and sequestration.
- Morecambe Bay estimated future carbon storage and sequestration to be 3,073t$CO_2$e per year[200] (after ten years post restoration) for raised bog restoration work and woodland management.

Although activities to increase and improve habitats across all NIAs are likely to have improved the natural management of water and flooding, six NIA partnerships[201] reported on specific work to improve water management or flood storage potential.

Seven[202] of the 12 NIA partnerships included objectives within their funding agreements that related directly to climate change adaptation or improved resilience (of habitats, ecosystems etc.) and 10 were involved in the project: '*Assessing and enabling climate change adaptation in Nature Improvement Areas*' (Atkins, 2013). As part of this project, NIA partnerships made use of the National Biodiversity Climate Change Vulnerability Model (NBCCVM) (Taylor *et al.*, 2014), and examples of this work are presented in Box 7.1.

Such activities in the NIAs are likely to have improved flood storage potential, reduced flood risk and increased resilience to climate change.

**Box 7.1: Examples of NIA use of the National Biodiversity Climate Change Vulnerability Model (NBCCVM)**

- Greater Thames Marshes NIA used NBCCVM to support habitat vulnerability mapping for the NIA which helped develop understanding of critical habitat areas (e.g. riparian habitats in industrialised areas of the Thames estuary).
- Morecambe Bay NIA used the NBCCVM to prioritise action for wetland sites.
- Nene Valley NIA used outputs from the NBCCVM to target management of areas (e.g. woodland planting and wetland creation) to help mitigate carbon emissions.
- Northern Devon NIA developed an ecological network map using the NBCCVM in conjunction with other models and tools.
- Wild Purbeck NIA added vulnerability information (from the NBCCVM) to existing data to demonstrate multiple benefits of habitat creation to landowners and to target areas for land use change in the Frome and Piddle Catchment.

[197] Birmingham and Black Country, Dark Peak, Nene Valley
[198] This figure excludes Year 3 data for Nene Valley as these were not reported in the online tool.
[199] t$CO_2$e means tonnes of $CO_2$ equivalents. Based on the United Kingdom housing energy fact file 2012 (DECC, 2012) the average $CO_2$ emissions per household (excluding transport) in the UK was 5.6 tonnes in 2010. Thus a calculated saving of the equivalent of 4,179 tonnes of $CO_2$ equates to the average annual emissions of 746 households.
[200] Based on the average annual $CO_2$ emissions per household (2010) of 5.6 tonnes (excluding transport) the total of 3,073 t$CO_2$e equates to the average annual emissions of 548 households.
[201] Birmingham and Black Country; Dark Peak; Dearne Valley; Humberhead Levels; Nene Valley; Northern Devon.
[202] Dark Peak; Dearne Valley; Greater Thames Marshes; Humberhead Levels; Morecambe Bay; Northern Devon; Wild Purbeck

**Source:** Natural England Commissioned Report NECR119 (Atkins, 2013)

## 7.5 Provisioning services

This section considers the extent to which NIA partnership activities and outputs contributed to increased provisioning services. NIA partnerships reported through the online reporting tool on the optional indicators: *area of more sustainable agricultural production* and the *percentage of woodland in active management*.

More sustainable agriculture and woodland management practices have delivered provisioning services. The NIA partnerships developed a range of marketable products from natural products or by-products of site management. Sub-sections 4.3.7 and 8.6 present NIA partnership activities considered to have supported the local economy. These include the development and marketing of natural products. Most projects used harvested material (such as wood or reed) and investigations were also made into using by-products from site management for biofuel. Two projects marketed food produce (local venison and meat derived from traditional breeds used in conservation grazing).

### 7.5.1. Area of more-sustainable agricultural production

Nine NIA partnerships provided data on the area of land under priority options within Higher-Level Stewardship (HLS) and Entry-Level Stewardship (ELS) agreements, based on information supplied by Natural England (see Table 7.3). These NIA partnerships reported on individual options of local priority. The data in Table 7.3 does not include point (e.g. ponds) and linear scheme options (e.g. metres of hedgerows), which some NIA partnerships also reported on.

Table 7.3 shows the area under both HLS and ELS options selected as priority by those NIA partnership that reported these data. At the end of Year 3 the area under HLS in these NIAs was 98,962ha and the area under ELS was 112,338ha[203]. These total figures show an overall increase compared to Year 2 figures (74,711ha in HLS and 102,730ha in ELS at the end of Year 2), although some NIAs reported a decrease in the area of land under selected priority HLS and ELS options due to agreements having come to an end.

The proportion of land under Environmental Stewardship within NIAs is slightly below the figure for England (see Table 7.4). This may be due to the lack of suitability of some options and that not all NIAs are within HLS target areas (e.g. Dearne Valley). The proportion of land under Environmental Stewardship increased more in NIAs than England as a whole over the period 2012 to 2015: an increase of 10.8% across NIAs compared to 7.2% across the whole of England (see Table 7.4). This increase cannot all be attributed to the work of NIA partnerships, although NIA partnerships may have made a contribution to this increase through the work of their advisers with farmers and land managers on Environmental Stewardship[204]. The proportional increase in land covered by Environmental Stewardship was lower from 2014 to 2015 compared to 2013 to 2014; this is most likely to be due to some agreements coming to an end during the reporting period.

**Table 7.3: Area of priority options within Higher (HLS) and Entry (ELS) Level Stewardship schemes**

| NIA partnership | Higher-level/targeted schemes (ha) | | Entry-level type schemes (ha) | |
|---|---|---|---|---|
| | Baseline (2012) | Year 3 (2014-15) | Baseline (2012) | Year 3 (2014-15) |
| **Dark Peak** | 7,708 | 48,890 | 18,063 | 100,259 |
| **Dearne Valley** | 292 | 386 | 122 | 73 |
| **Greater Thames Marshes** | 4,995 | 7,087 | 926 | 1,376 |
| **Humberhead Levels** | 0 | 19,952 | 0 | 4,204 |
| **Marlborough Downs** | 601 | 563 | 258 | 215 |

[203] Note that more than one option may apply to the same area of land, and so cumulative data for individual option areas may be greater than the total area of land in Environmental Stewardship.

[204] For example training / recruitment of farm advisers were reported by Nene Valley, Northern Devon and South Downs to encourage sustainable farming practices, and application for Environmental Stewardship grants.

| NIA partnership | Higher-level/targeted schemes (ha) | | Entry-level type schemes (ha) | |
|---|---|---|---|---|
| **Meres and Mosses** | 1,391 | 1,469 | 1,751 | 1,506 |
| **Nene Valley** | 849 | 1,119 | 2,661 | 2,103 |
| **South Downs** | 9,271 | 12,169 | - | - |
| **Wild Purbeck** | 7,726 | 7,327 | 2465 | 2,602 |
| **Total** | **32,833** | **98,962** | **-** | **112,338**[205] |

**Source:** Analysis based on data recorded by NIA partnerships on coverage of priority options within HLS and ELS schemes recorded in the online reporting tool.
**Note:** '-' means no data were entered by NIA. Due to missing data values, total area has not been calculated for baseline.

### Table 7.4: Proportion of land in Environmental Stewardship within NIAs compared to the whole of England (2012-15)

| Area | Percentage of land in Environmental Stewardship | | | | Increase 2012 - 2015 |
|---|---|---|---|---|---|
| | March 2012 | March 2013 | March 2014 | March 2015 | |
| **All NIAs** | 32.6 | 36.6 | 42.9 | 43.4 | 10.8% |
| **England** | 40.2 | 44.8 | 48.0 | 47.4 | 7.2% |

**Source:** Analysis based on data supplied by Natural England on Environmental Stewardship scheme coverage. Land area of England used for the calculation taken as 13,348,000ha (the total land area above MHW as used in the Lawton report).

**Box 7.2: Summary results from counterfactual analysis related to ELS options in NIAs**

As part of the monitoring and evaluation a supplementary piece of research was undertaken to understand the counterfactual i.e. what would have happened without the NIA initiative? This included a trajectory analysis of environment stewardship data across the NIAs comparing trends in non-Entry Level Stewardship (ELS) option applications before the NIA initiative (2005 – 2011) with the data from the NIA initiative (2012 – 2015). Also a matched comparison of the same environment stewardship data comparing NIAs with, the rest of England and with similar non-NIA landscapes (National Character Areas and Agricultural Land Types).

This exploratory research concluded that the nature of the data meant that it was not possible to make any quantified assessment as to the difference the NIA programme made to the number of non-ELS agri-environment applications compared to what would have happened anyway. This is because of the diversity of the NIAs; relatively small proportion of habitat managed by the NIAs within the total area of each NIA; previous management activities within the NIAs; and wider changes in agri-environment policy over the same time period.

More information on this and the methods used can be found in Annex 1.

## 7.5.2. Percentage of woodland in active management

Two NIA partnerships reported on the optional indicator *percentage of woodland in active management*. Humberhead Levels NIA reported that 1.1% of woodland cover within the NIA (27ha out of the 2454ha of woodland within the NIA) was brought into active management as a direct result of their land advisory activities. South Downs NIA reported 60% of woodland within the NIA was in active management[206] (4747ha out of 7912ha of woodland within the NIA).

Table 7.5 illustrates the total area and the proportion of woodland in active management[207] across all NIAs at the end of Year 3. The area of woodland in active management across all 12 initial NIAs increased from a baseline figure of 23,675ha to 26,974ha at the end of Year 3. This increase of 2,922ha represents a 5.5% increase in the proportion of land in active management from baseline to end of Year 3.

[205] It is not known if South Downs have zero (0) land under ELS or if this represents missing data. Total calculated on assumption area is zero.
[206] The NIA recorded 60% of woodland to be in active management based on analysis of data from the Rural Land Register in combination with OS Survey MasterMap.
[207] Based on Forestry Commission National Forestry Inventory data

As national datasets are used for this indicator (even when recorded by NIA partnerships in the online reporting tool), and have been used in Table 7.5, this increase cannot be directly attributed to NIA partnership led activity. The exception is when NIAs reported their direct contribution to this indicator in the online reporting tool, e.g. Humberhead Levels.

Over the same period (2012 – 2015), the national (England) indicator for woodland in active management (Forestry Commission, 2015) shows an increase in the percentage of woodland in active management of 4.8%, from 51.5% to 56.3%.

**Table 7.5: Woodland cover and extent of managed woodland across all NIAs at the end of Year 3**

| Total NIA area (ha) | Total woodland (ha) | % of NIAs that is woodland | Area of actively managed woodland (ha) | % of woodland actively managed across all NIAs | % of woodland in active management, England (March 2015) |
|---|---|---|---|---|---|
| **513,144** | 51,079 | 9.95% | 26,974 | 52% | 56% |

**Source:** Data supplied by Natural England in 2015 based on the Forestry Commission National Forest Inventory and the Woodland in Management indicator. England level indicator from Forestry Commission Corporate Plan Performance Indicators and Woodland Indicators 2015 (Forestry Commission, 2015).

# 8. Evaluation of Social and Economic Wellbeing Outcomes and Impacts

## Key findings at the end of Year 3: Social and Economic Wellbeing

- In all NIAs **activities resulted in social, economic and wellbeing benefits.** Such benefits were realised through specific activities, such as those related to community engagement, but also through the integrated approach adopted in NIAs, such as by encouraging volunteers to participate in habitat management activities, leading to habitat improvements but also potential social and wellbeing benefits for those participating.
- All NIA partnerships **designed and delivered activities that resulted in education and learning opportunities for children and adults.** The benefits of these activities include better understanding of the environment, using the environment as a forum for enhanced cross-curricular learning and accrediting individuals with formal qualifications.
- **Community engagement activities led to the development of new social networks, or the strengthening of existing ones**. This occurred primarily as a benefit of volunteering. It was not possible to measure this fully or to understand the social distribution of these benefits.
- The NIA partnerships undertook **activities that delivered spiritual, cultural and aesthetic benefits**, for example related to enhancing a sense of place within the NIA or artistic enhancements / representations of local places.
- **Six NIA partnerships reported on economic benefits.** Much of this work related to promoting bio-fuel markets, and using the natural environment to enhance the attractiveness of the area to visitors and investors. NIA partnerships also completed research to **understand and demonstrate the economic value of ecosystem services** in their areas, including a valuation of culm grassland in Northern Devon, and an assessment of the value habitats created under the NIA project in Birmingham and Black Country.
- There were challenges in measuring social and economic benefits quantitatively and in aggregating benefits across NIAs, however **qualitative research (e.g. cases studies and interviews) provided evidence of a range of social and economic benefits** being targeted and achieved by NIAs.

## Possible longer-term outcomes and impacts (2015-20)

- The long-term social, economic and wellbeing outcomes of the NIA partnerships will depend on the extent of continued support for activities that promote these outcomes, such as volunteering, educational outreach and community engagement in the natural environment.
- However some NIA partnership activities over the three grant-funded years are expected to provide ongoing benefits, for example:
    - Support provided to local economies, such as establishing production of and markets for woodland products and biofuel, and promoting NIAs as tourist destinations or places to locate businesses.
    - Ongoing social and health benefits of volunteering and associated physical activity.
    - The legacy of educational activities and work with local schools, both through the individuals who have benefited, and by providing materials and knowledge that can be used in future.

## 8.1 Introduction

This part of the evaluation considers the extent to which, at the end of the three years of government grant funding (2012-15), NIA partnerships contributed to social and economic wellbeing outcomes and impacts in their areas. It evaluates NIA partnership contributions to: the physical and mental health of local people; education and learning; symbolic, spiritual and aesthetic benefits; social development and connections; and contributions to the local economy. These benefit types were identified through a literature review which was published as an annex to the Year 2 Progress Report (CEP, 2014a).

As noted in section 7, there is a direct relationship between social and economic wellbeing outcomes and ecosystem services. Outcomes reported in section 7, and in particular those related to cultural ecosystem services are also relevant to social and economic wellbeing.

### 8.1.1. Data sources used in this section

The evaluation of inputs and process is based on analysis of information and data from the following sources:

- NIA data entry in the online reporting tool for monitoring and evaluation indicators:
    - Social and economic theme: number of volunteer hours on NIA activities (core); Number of educational visits (optional).

  Note: a table summarising the NIA partnerships' monitoring and evaluation indicator selection is included in Appendix 1.
- Social and economic wellbeing case studies co-developed by the monitoring and evaluation team and the NIA partnerships (included as a separate volume, see Annex 3).
- NIA visitor surveys (provided via the online tool document upload facility).
- Outcomes of interviews with NIA partnerships held in December 2013-January 2014 related to research and innovation and in May-June 2014 related to social and economic wellbeing and partnership working.

  Note that the interviewees agreed that quotes could be used from the interviews, but this was on the understanding that they would be anonymised. Therefore, where quotes are used in this report an NIA code (e.g. [NIA 4]) is used to identify them rather than the name of the interviewee or NIA partnership.
- Data and evidence generated through the research to understand the difference the NIAs have made over and above what would have happened anyway (counterfactual), including interviews with all NIA partnership chairs (January–February 2015), interviews with national level stakeholders (January–February 2015), and the survey of NIA partners undertaken in Jan–Mar 2015 (see Annex 1 for more information on this research).

Note that the monitoring and evaluation of this theme was supported by a literature review on the social and economic benefits associated with natural environment initiatives and their contribution to wellbeing undertaken as part of the Phase 2 monitoring and evaluation project (CEP, 2014c)

### 8.1.2. Summary of the evaluation of social and economic wellbeing outcomes and impacts

This section considers the evaluation questions set out Table 8.1. This also presents headlines from the evaluation against each evaluation question. Further detail to support the evaluation headlines is provided in the key findings at the start of this section and the following sub-sections.

### Table 8.1: Social and economic wellbeing evaluation questions and evaluation headlines

| Questions<br>To what extent have NIAs… | Sub-questions | Evaluation headlines | Summary of counterfactual findings[208] |
|---|---|---|---|
| **Contributed to the physical and mental health of local people?** | 1. To what extent have the NIA partnerships helped improve people's health and physical fitness?<br>2. To what extent have the NIA partnerships helped improve people's mental health? | • A range of NIA partnership activities were likely to have had physical and mental health benefits, including volunteering, improved access to and engagement in the natural environment, and projects specifically targeting improved health as an outcome. [Sub-section 8.2.1 and 8.2.2]<br>• By the end of Year 3, 41,544 volunteer days were reported under volunteering categories likely to have delivered health benefits. [Sub-section 8.2.2]<br>• From the available information, it was not possible to provide a detailed assessment of the scale and type of these benefits. | • There was significant variation in responses from different NIAs and types of respondent in relation to health outcomes, so that no clear conclusion could be drawn, e.g. respondents from community organisations were more likely to note an improvement in health outcomes.<br>• One NIA partnership chair interviewee noted that while access to the natural environment has been improved it has been hard to link this explicitly to health / wellbeing outcomes. |
| **Contributed to education and learning?** | 3. To what extent have the NIA partnerships engaged people in and influenced education and learning? | • All NIA partnerships designed and delivered activities that resulted in education and learning benefits for children and adults.<br>• At the end Year 3, a total of 29,496 people had participated in educational visits in the five NIA partnerships that reported on this. [Sub-Section 8.3.1]<br>• As a comparison, in the New Forest around 10,000 students a year receive free learning sessions (New Forest National Park Authority, 2015)[209].<br>• NIA partnerships also worked with volunteers, contractors and students to provide specific training and / or undertake capacity building e.g. related to developing surveying and practical land management skills. [Sub-section 8.3.3] | • Views on improvements in working with schools varied significantly depending on the NIAs. Whereas eight NIAs in the survey noted improvements, four noted 'No difference' as their modal answer. This can largely be explained by the difference in priorities and objectives of the NIAs.<br>• Through interviews, 7 out of 12 NIA partnerships chairs specifically referred to education and working with schools as having improved through the establishment of the NIAs. |
| **Contributed to symbolic, spiritual and aesthetic** | 4. To what extent have the NIA partnerships enhanced symbolic, spiritual and aesthetic benefits? | • NIA partnership activities explicitly considering these benefits sought to enhance the sense of place within | • 69% of survey respondents felt that the establishment of the NIA programme had 'improved' (55% of |

[208] The full findings of the counterfactual are presented in the report in Annex 1. See Appendix 2 for a summary of the counterfactual method.

[209] http://www.newforestnpa.gov.uk/info/20016/our_work/54/annual_review

| Questions<br>To what extent have NIAs… | Sub-questions | Evaluation headlines | Summary of counterfactual findings[208] |
|---|---|---|---|
| **benefits?** | | NIAs as well as undertaking artistic enhancements / representations of local places. [Sub-section 8.4] | respondents) or 'much improved' (14%) aesthetic and cultural quality in the NIAs. |
| **Contributed to social development and connections?** | 5. To what extent have the NIA partnerships helped engage people from diverse social backgrounds in the natural environment?<br>6. To what extent have the NIA partnerships led to enhanced networks, social connections and community identity? | • The evidence provided by the NIA partnerships indicated that new networks had been developed or existing ones strengthened. This was mostly achieved through volunteering. [Sub-section 8.5.2]<br>• While NIA partnerships sought to engage with all social and economic groups, the available evidence was insufficient to understand if the diversity of people involved in and visiting the NIAs widened. [Sub-section 8.5.1] | • 75% of survey respondents felt that the establishment of the NIA programme had 'improved' (56% of respondents) or 'much improved' (19%) community relations and networks.<br>• Through interviews, partnership chairs from all 12 NIAs expressed that the NIA partnerships have resulted in improved community relations and / or communication. |
| **Contributed to the local economy?** | 7. To what extent have the NIA partnerships generated economic benefits, e.g. through: recreation and tourism activities, regeneration, increased land/property values, increased ecosystem services and natural capital?<br>8. To what extent have the NIA partnerships supported particular sectors and economic activities? | • Six NIA partnerships had projects focused on local economic benefits, for example building capacity of local land managers relating to woodfuel opportunities arising from woodland management.<br>• One NIA partnership worked with their Local Enterprise Partnership (LEP) to use their natural environment to enhance the attractiveness of the area to visitors and investors. [Sub-section 8.6]<br>• Two NIA partnerships supported specific studies to demonstrate the value of ecosystem services in the NIA. [Sub-section 8.6.3] | • 36% of survey respondents felt that the establishment of the NIA programme has 'improved' (33% of respondents) or 'much improved' (3%) economic development in their area, with 39% selecting 'no difference'.<br>• Interviews with the NIA partnership chairs suggest that where NIA partnerships have focussed on them, additional economic benefits have been achieved, such as the establishment of a business environment network, and activities to develop local markets, such as for woodfuel and woodland products. |

## 8.2 Health

Numerous studies identified by the literature review completed as part of the monitoring and evaluation Phase 2 project demonstrate that contact with the natural environment has benefits for the physical and mental health of individuals and communities (CEP, 2014c). The association between these factors, in simple terms, is that: spending time in open green space is related to increased physical activity and / or relaxation which in turn is related to delay or prevention of onset of medical conditions.

This simplified understanding of the natural environment and health benefits has been used to identify NIA activities that were either explicitly aimed at delivering health benefits, or which through their design and delivery were likely to deliver health benefits to individuals.

### 8.2.1. NIA partnerships' consideration of health benefits

A review of NIA quarterly Progress Reports showed that only a small number of NIA partnerships'

projects explicitly targeted improved health as an outcome[210]. This finding was supported by the interviews held with NIA partnerships in May-June 2014[211] and January-February 2015 which indicated that in most instances health benefits were considered positive secondary outcomes from the NIA partnerships' biodiversity and community engagement work. This reflects the NIA approach which was intended to deliver nature improvements in an integrated way, rather than focussing explicitly on other outcomes. For example, one NIA partnership stated that health benefits were *'certainly'* delivered but '*not intentionally …* [rather they are] *a by-product of some activities'* [NIA 3]. Another NIA partnership noted that delivering these sorts of benefits was '*not written into business plan and difficult to quantify'* [NIA 2].

Reflecting the observation that health outcomes were delivered but not as an explicit priority, 39% of NIA partners felt that, compared to what would have happened anyway, the NIA had either 'improved' (35% of respondents), or 'much improved' (4% of respondents) the health outcomes of their communities. The remaining 61% either expressed that they did not know (30%) or felt health outcomes were no different (31%). Perceived improvements in the health outcomes of communities varied significantly depending on the type of respondent. Community organisations, partners who acted as facilitators and had more direct involvement with the community, were more likely to note an improvement.

Looking forward, NIA partnerships stated that they might start to prioritise health benefits in the future. For example one stated that they were '*looking to tie up with organisations that look after adults with special education needs to allow these vulnerable people to access both mentally and physically the local environment. Trying to drive the whole health and symbolic aspect more'* [NIA 3]. Another said that although they '*haven't tapped into this agenda yet* [and] *projects* [have] *not done with this a primary objective* [they will consider it] *for the next phase of NIA work'* [NIA 1].

One NIA partnership chair saw the value but reflected on the challenge of engaging with health, stating that '*the health agenda is enormous - and the countryside provides a massive opportunity to address many health issues - be good to explore this more widely but not found a mechanism'* [NIA 12]. Responses to the survey supported this with partners noting that three years was '*too short a time to impact on 'new' agendas such as health and business'.* These however are *'key'* and '*more needs to be done* [by the NIA] *to focus on the economic, health and cultural side. It takes longer than three years to tackle everything'*.

### 8.2.2. Have the NIA partnerships enhanced the physical fitness of local people?

Evidence from NIA partnerships' quarterly Progress Reports and the interviews in May-June 2014 and January-February 2015 supports the assumption that most NIA partnership volunteering activities resulted in people being outside in the environment, often involving physical work and that these activities lead to health benefits. The relationship was expressed by one of the interviewees who felt that: '*volunteers' involvement in physical tasks will benefit both mental and physical health*' [NIA 10].

Wider evidence (CEP, 2014c) of health benefits from physical work in the environment is very strong. Analysis by Natural England of the type of work volunteers undertook (see sub-sections 4.3 and 5.2.3) indicate that across the three grant funded years NIA partnerships mobilised 47,159 days of volunteering, of which 35,336 days was on 'implementation' work, which includes physical land management and improvement activities, and a further 6,208 days doing 'data, survey and mapping' work including data collection, mapping, site survey and sampling. Most of these volunteering activities are likely to have included some form of outdoor physical activity, and have potentially led to health benefits for the volunteers; although some volunteers may have only experienced these potential benefits for a short period of time.

[210] A review of the progress reports for quarter 2 of Year 2 by the Phase 2 monitoring and evaluation team identified 23 projects which could be considered to be in-directly considering health benefits.

[211] Note that the interviewees agreed that quotes could be used from the interviews; but this was on the understanding that they would be anonymised. Therefore, where quotes are used in this report an NIA code [e.g. NIA 1] is used to identify them rather than the name of the interviewee or NIA partnership. The numbers allocated are arbitrary.

Volunteering was not the only way that the NIA partnerships delivered health benefits. Some NIA partnership projects sought to encourage individuals to experience and engage with the natural environment (see sub-section 4.4.1 and Box 4.6). NIA partnerships also improved access to the natural environment, for example by improving public footpaths. It is possible that this may have lead to increased visitor numbers who may experience related health benefits, but the nature of the available information (length of paths created and/or improved) means it was not possible to assess this. Box 4.6 in section 4 summarises relevant activities.

### 8.2.3. To what extent have the NIA partnerships helped improve people's mental health?

It is difficult to differentiate between the potential of the NIAs to deliver physical and mental benefits, it is assumed that as with physical health spending time outside and volunteering with other people in the NIAs will have had some mental health benefits. Although these have not been measured, there may have been mental health benefits from other NIA activities, such as events bringing people together such as cultural / arts events such as art installations and theatrical performances and events to engage people in the environment including group walks and volunteer groups. The Greater Thames Marshes NIA delivered a project which specifically considers mental health, this is summarised in Box 4.5.

## 8.3 Education and learning

This section considers the benefits to people from interacting with natural environments and as a result increasing knowledge, learning and skills. This does not refer solely to learning about the natural environment, but also how learning in nature can be used to enhance other skills and capacities (e.g. language and communications, art and science).

### 8.3.1. Number of educational visits within the NIAs

Five NIA partnerships (Dearne Valley, Morecambe Bay, Meres and Mosses, North Devon and Humberhead Levels) reported on the optional indicator *number of educational visits* (see Table 8.2).

These data show that the number of educational visits varied between NIAs and that by the end Year 3, a total of 29,496 people had participated in educational visits. As a comparison, in the New Forest around 10,000 students a year receive free learning sessions (New Forest National Park Authority, 2015)[212]. Year 2 was the most active year with 12,822 participants, Year 3 had 9,720 and Year 1 6,954.

The mix of adult (over 16) and child visits varied between these three NIAs. For example, over the three years 82% of Humberhead Levels and 81% of Dearne Valley's educational visits were with adults visiting NIA sites or centres (e.g. visitor centres). In Meres and Mosses (65% adult), Morecambe Bay (62% adult) and North Devon (46% adult) the composition was more equal between adult and child visits.

**Table 8.2: Number of people attending educational visits**

| NIA | Year 1 | Year 2 | Year 3 | Total |
|---|---|---|---|---|
| Dearne Valley | 3,363 | 4,823 | 2,635 | 10,821 |
| Humberhead Levels | 2,861 | 4,675 | 4,426 | 11,962 |
| Meres and Mosses | 24 | 91 | 301 | 416 |
| Morecambe Bay | 462 | 1,767 | 1,545 | 3,774 |
| Northern Devon | 244 | 1,466 | 813 | 2,523 |
| **Total** | **6,954** | **12,822** | **9,720** | **29,496** |

**Source:** Data recorded by NIAs in the online reporting tool
**Note:** Educational visits are defined as any organised visit to an NIA site or centre (e.g. visitor centre) which has an explicit educational objective or if an NIA arranges a visit to a school by NIA partners.

[212] http://www.newforestnpa.gov.uk/info/20016/our_work/54/annual_review

### 8.3.2. Working with schools

NIA partnership Progress Reports and the interviews held in May-June 2014 showed that all of the NIA partnerships engaged with schools and further education colleges. NIA partner organisations had worked with schools before the NIAs were established, but 49% of NIA partner respondents to the survey in early 2015 felt that the NIA programme had 'improved' (37% of respondents), or 'much improved' (12%) how they worked with schools, compared to what would have happened anyway. Responses to the survey relating to improvements in working with schools varied depending on the respondents' NIA. Responses from partners in eight NIAs noted improvements but four noted 'no difference' as their modal answer. This may be due to the difference in priorities, objectives and community activities each NIA partnership has engaged in.

Partners who responded to the survey noted that '*the NIA's community outreach programme has enabled us to work with schools and communities which would not have happened in this area without NIA Defra funding' and 'New and stronger links have been made with communities, schools and businesses*'. The interviews held in January-February 2014 and January-February 2015 produced similar findings, with one NIA saying that the '*Schools programme is great - a lot more outdoor education introduced into the area through the NIA work'* [NIA 7], and 7 of 12 NIA partnership chairs specifically referred to education and working with schools as having improved through the establishment of the NIAs.

The majority of these activities included schools visiting the NIA to learn about the environment, to undertake cross-curriculum activities (such as art) or to support volunteering via surveys and practical activities. Box 8.1 presents an example that combines all the elements of this work.

**Box 8.1: Wild Purbeck – Getting wild about Purbeck in your school**

The project, which has now ended as an NIA activity, provided a service which offered free teacher training to schools in the NIA and strategic education advice to Wild Purbeck NIA Partners.

Teaching training was undertaken through targeted free 'twilight training sessions'. These sessions involved the NIA partnership in helping teachers to understand the Jurassic Coast, the local geology in Purbeck and how this underpins and supports the area's natural environment. The NIA partnership selected a number of schools to achieve Level 1 Forest School training (four over the three grant funded years). This is a national qualification and by securing teachers' accreditation, it was hoped that the project would become self-sustaining and more and more schools will engage with the natural environment across their curriculum.

NIA partners also visited four schools and provided advice and support on how to maximise the biodiversity benefits of their schools grounds. The following feedback was received from some of the 52 teachers who received training:

| | | |
|---|---|---|
| *"Brilliant! I'm sure many of the great ideas will easily translate into the classroom."*<br>*"Very useful session prompting us to review our topic cycle."*<br>***Wareham St Mary Primary School*** | *"Useful links to the Dorset Wildlife Trust that can be linked to Bug Hotel in EYFS."*<br>*"Good reminder of science and history links and how to bring our local environment alive."*<br>***Sylvan Infant School, Poole*** | *"I loved the enquiry aspect and all the ideas for questions for children."*<br>*"Great links to forest schools and eco-schools. Good ideas for EYFS and KS1."*<br>*"Very passionate and enthusiastic presentation on subject knowledge that is needed for teaching on our doorstep."*<br>***St Marks Primary School, Swanage*** |

**Source:** NIA social and economic wellbeing case studies developed by NIA partnerships in Year 2 and updated in Year 3

### 8.3.3. Adult training and education

NIA partnerships worked with volunteers, contractors and students to provide training and / or undertake capacity building. Much of this work related to developing surveying and practical land management skills. These activities provided the individuals involved with new skills and confidence whilst also supporting the NIA partnerships' work. There were three identified objectives to this work:

- Sustaining NIA partnership project delivery and raising interest.
- Providing best practice examples.

- Helping individuals gain specific qualifications.

The interviews held with NIA partnerships in May-June 2014 and the social and economic wellbeing case studies (see Annex 3) indicate that these aspects of the NIA partnerships' work had positive outcomes for engaged members of the local community as well as contributing to meeting funding agreement objectives. Example impacts included increased volunteers' skills so that they might contribute more to NIA partnership projects (for example via ecological surveys or physical works). Evidence from the interviews also indicated that NIA partnerships hoped that by creating exemplar projects this would lead to increased take-up of their initiatives during and after the three grant funded years, particularly in relation to sustainable management of woodlands.

## 8.4 Symbolic, spiritual and aesthetic benefits

The literature on green spaces provides many examples of how experiencing the symbolic, spiritual and cultural aspects of nature and natural environments, enhances human wellbeing. These benefits are described as being co-delivered by the individuals' cultural practices and the 'environmental space' they are in (Church *et al.*, 2014). They are therefore context specific and there are limits to the evaluation and reporting possible in this area. As one NIA project manager commented: '[we] *have worked a lot with artists* [including the] *poet in residence at* [a local] *Nature Reserve and story tellers.* [We] *recorded* [these activities] *but evaluating impact has been difficult*' [NIA 1].

The review of NIA quarterly Progress Reports identified a small number of projects that explicitly considered spiritual, cultural and aesthetic benefits. The interviews held in May-June 2014 with the NIA partnerships showed that in most instances any such benefits were additional outcomes from improvements to the quality of the environment. It was possible to identify some projects which might result in this sort of benefit, but there was limited available information to evidence this. Box 4.7 in section 4 summarises relevant projects.

Although there were only a few projects explicitly focussing on these benefits 69% of respondent to the survey of NIA partners in early 2015 felt that, compared to what would have happened anyway, the NIA activities had 'improved' (55% of respondents) or 'much improved' (14%) aesthetic and cultural quality in the NIAs. Only 17% of respondents felt there had been no change. This suggests that the partners felt that other activities, notably biodiversity enhancement, delivered cultural and aesthetic benefits. This is supported by the narrative responses recorded through the survey, for example: '*site enhancement projects will have improved the aesthetic quality of sites and relations with certain sections of communities'; '*[our work with] *local people has made it very clear how at least some residents appreciate the aesthetics of transforming plantations into bluebell woods, lawns into hay meadows and in managing existing habitats';* and, *'local communities can see real changes in the landscape as a result of the NIA'.*

## 8.5 Social development and connections

### 8.5.1. Number and social mix of visitors to NIA sites

Activities and experiences related to the natural environment and recreation have been identified as 'neutral spaces' where different communities come together and interact (New Economics Foundation, 2012; Ockenden, 2007). Social development and connection benefits are those which bring people together and strengthen or increase connections across social groups. Sub-section 5.3.4 on leadership and influence reports on NIA partnerships' outreach and communication, which are also related to social development and connections.

NIA partnership activities had the potential to lead to social development and connections including supporting community cohesion. One recognised issue was that generally, people engaging with the natural environment tend to be from relatively narrow socio-economic and ethnic groups (tending to be richer, more able and white) (Natural England, 2013, p15). Understanding the types of people engaging with NIA partnerships is important for setting the baseline and to encourage wider engagement.

Information provided through online reporting tool and other information sources[213] indicated that some NIA partnerships hoped to engage with all social and economic groups to broaden the diversity of people involved in and visiting the NIAs. The available quantitative evidence was of insufficient quality to draw conclusions on changes in the diversity of NIA visitors but evidence collected through case studies, interviews and surveys showed that some NIAs undertook activities with the aim of making NIAs more inclusive and accessible. Some projects, such as Marlborough Downs 'Driving for the Disabled'[214] sought to increase access for less-able groups (for more information on this example see the full case study in Annex 3) and as a whole the NIAs created or improved 20.07km of permissive paths which may have increased access for less able groups.

### 8.5.2. NIA partnership actions to enhance social development and connections

This sub-section evaluates the extent to which NIA partnership activities promoted social bonds between people and connectedness between people and nature. A review of NIA quarterly Progress Reports indicated that a limited number of projects explicitly aimed to deliver social development and connections benefits. The interviews with NIA partnerships in May-June 2014 and partnership chairs in January-February 2015 suggested that in practice most of the activities which involve working with communities did deliver these benefits. Examples of these activities are presented in sub-section 4.4.1.

The interviews with NIA partnerships identified that they felt that their work made contributions to social connections by:

- Allowing individuals to create or develop social relationships, by creating volunteering and partnership working opportunities.
- Expanding social networks which leads to access to wider pools of resources, by focusing on partnership based delivery of projects.
- Increasing trust between individuals and organisations, by bringing individuals and organisations together around common objectives.

75% of respondents to the survey in Jan-Mar 2015 felt that the NIAs had 'improved' (56% of respondents) or 'much improved' (19%) community relations and networks, compared to what would have happened anyway. The interviews with national stakeholders in January-February 2015 suggested that the range of partners and the flexibility of funding allowed for the levels of community engagement reported.

This was supported during interviews with NIA partnership chairs in January-February 2015 with one NIA stating that *'one of the main things about the NIA objectives was to allow the social and economic side to be built into the programme - probably would not have happened without the NIA programme - and has resulted in additional benefits'* [NIA 1].

## 8.6 Local economy

A review of NIA quarterly Progress Reports indicated that at least six NIA partnerships[215] explicitly sought to deliver economic benefits. NIA partnerships delivered local economic benefits through three main activities:

- Supporting the production and exchange of natural products - particularly woodfuel.
- Place based marketing – i.e. promoting the NIA as a 'destination' and the importance of the natural environment.

[213] Such as: surveys from Meres and Mosses, Greater Thames Marshes Dark Peak and Humberhead Levels; NIA quarterly Progress Reports; and the interviews with NIA partnerships in May-June 2014.
[214] See: http://www.bbc.co.uk/news/uk-england-wiltshire-29027965
[215] Birmingham and Black Country, North Devon, Morecambe Bay, Marlborough Downs, South Downs and Wild Purbeck

- Demonstrating and promoting the value of ecosystem services, either from particular habitats (e.g. culm grassland in Northern Devon) or the wider benefits of the natural environment (Birmingham and Black Country).

### 8.6.1. Natural products

Wild Purbeck, Northern Devon and Morecambe Bay NIA partnerships developed commercial opportunities to sell wood for fuel. This was done by simultaneously creating the product through habitat management activities, such as coppicing and felling, and building the capacity of local volunteers, students and contractors to sell the resulting products.

NIA partnerships undertook training and capacity building, for example Northern Devon delivered seven woodland management and nine woodfuel events for land managers. Wild Purbeck appointed a Woodland Apprentice, who delivered a project managed by Dorset Wildlife Trust as part of their work as an NIA partner. This coppicing work created workplace opportunities for the individual. The NIA partnership also launched practitioner training for A Level 4 BASIS Foundation Award in Agronomy (more information is presented in Box 4.11 in section 4).

Wild Purbeck undertook research to understand the scale of the biomass resource within their area with the intention of, if feasible, starting biomass collection for energy production. The partnership chair for this NIA stated that this work would not have happened without the NIA programme as, among other support, the NIA programme allowed them to undertake the feasibility study that provided the basis for this project.

During the interviews in January-February 2015 other NIA partnership chairs expressed that without the NIA programme, and the flexibility of the funding, many of these activities would not have happened.

### 8.6.2. Place based marketing

Research shows that green spaces contribute to the attractiveness of a local area and may help to attract businesses and people to the area (Sunderland, 2012), for example it was found that environmental attractiveness was a key reason for over 35% of companies relocating to the south west of England (Land Use Consultants, 2006). There was also evidence that the creation of parks and green spaces can influence decisions in locating businesses and new homes (Forest Research, 2010; New Economics Foundation, 2012). Using these phenomena to improve the image and reality of a location is often referred to as place based marketing.

Morecambe Bay NIA partnership, and others organisations in the area, explored the possibilities of working with businesses to identify opportunities for place based marketing. This work created a sense-of-place toolkit[216] and nature on your doorstep guides[217] which were intended to be used by businesses to communicate the nature of the local environment. The NIA also had a network of over 100 businesses who were feeding into their 'destination Morecombe Bay' work which is now being led by the local tourism board. It is hoped that these initiatives will increase the attractiveness of the area and also make clear to local businesses the important role the natural environment has in creating visitor demand for the area.

The Northamptonshire Local Enterprise Partnership (LEP) worked with the Nene Valley NIA to create a 'destination Nene valley' initiative[218]. This project included a website supported by marketing and public relations activities to increase awareness of the area and promote its tourism sector. Interviews indicated that this joint working would not have occurred without the NIA funding, with one participant reflecting that '[the NIA] *created a step-change in thinking about the Nene valley as an 'environmental destination''.*

### 8.6.3. Economic value of ecosystem services

[216] See: http://www.morecambebaynature.org.uk/sop-introduction
[217] See: http://www.morecambebaynature.org.uk/node/63
[218] More information is available on the LEP website http://www.northamptonshireep.co.uk/promoting-northamptonshire/nene-valley/

Ecosystem services are discussed in section 7, however some NIA partnerships explicitly sought to understand and demonstrate the economic value of ecosystem services in their area. Two examples include: a study on the value of culm grasslands in Northern Devon, part funded by the NIA partnership and led by the University of Exeter; and research completed by Birmingham and Black Country NIA partnership into the estimated value of ecosystem services in the NIA. South Downs NIA partnership also explored the use of payments for ecosystem services as a source of funding to continue chalk grassland restoration work in the NIA.

Culm grassland an important habitat in Northern Devon, is recognised as an internationally important wet pasture habitat, provides multiple ecosystem services, including:

- Capture and storage of carbon
- Reducing nitrogen and phosphate loads in water and soil
- Water storage
- Reduced suspended sediment loads in water
- Cultural and spiritual benefits arising from the landscape, biodiversity and habitat
- Education and research benefits
- Climate regulation
- Production of food and fibre

Analysis of the economic value of Culm grassland in Northern Devon (Cowap *et al*, 2015), based on research to quantify its water resource and carbon storage capacities (Puttock and Brazier, 2014) found that:

- The estimated loss of water and carbon value from Culm grasslands, which have been converted to intensively managed grasslands since 1900, was £9.7 million at current prices.
- The work undertaken to date by Devon Wildlife Trust in the restoration of Culm grassland was estimated to have a potential benefit of £9.14 million by the time it had taken full effect.
- The current Culm area had a marginal value of £14.72 million.

The study also notes that habitat restoration and recreation work (the creation of new and the improvement of existing habitat) such as that implemented by Devon Wildlife Trust under the NIA project:

> *'… provides an excellent return on investment. Over the next ten years, Devon Wildlife Trust aims to restore at least 5,000 ha more Culm, which will more than double its water and carbon value to in excess of £20.5 million. The cost of this investment in Culm restoration and recreation is in the region of £2 million, giving more than a ten-fold return on investment'.* (Cowap et al, 2015, p4)

Over the three grant funded years, the Northern Devon NIA implemented actions on more than 1,500ha of grassland, suggesting a potential of more than £6 million in water and carbon value.

In Birmingham and Black Country a study was commissioned by the NIA partnership to understand the economic value of green infrastructure in the NIA (Hölzinger, O., 2015). This study shows that:

- The economic value of ecosystem services from green infrastructure was estimated to be £1.08 billion capitalised over 100 years at 2014 prices[219]. The study also notes that as many ecosystems could not be valued within the scope of the study (due to gaps in valuation science) the real value of all ecosystem services by all ecosystems within Birmingham and Black Country NIA could be in excess of £3.77 billion capitalised.

[219] This is considered to be a baseline figure as not all ecosystems could be valued within the scope of the study.

- The sustainable flow of assessed ecosystem services was valued at £20.67 million annually.
- A valuation of ecosystem services provided by habitats created as part of the NIA activities was estimated to have a capitalised value of approximately £2.19 million (the value at 2014 prices of ecosystem services over a time period of 100 years).
- A specific cost for the habitat creation activities associated with this valuation of £2.19 million was not considered in the study, however the NIA government grant paid to Birmingham and Black Country was approximately £600,000 and total expenditure (based on financial claim forms) on implementation[220] by the Birmingham and Black Country over the three grant funded years was £1.6 million. A crude estimate of return on investment based solely on the government grant would be approximately a four-fold return. Alternatively if all 'implementation' expenditure is considered to have been spent on habitat creation, this represents a 1.37 return on investment (for each £1 invested, £1.37 of benefit is accrued).

[220] Defined in Natural England financial reporting: land management activity/ improvement works including capital items

# Part IV: Overall Findings, Lessons Learnt and Conclusions

# 9. Overall Findings of the Evaluation

This section draws on the progress and achievements reported in section 4 and detailed evaluation presented in sections 5 – 8 and provides overall evaluation findings. It sets out a summary of the inputs, activities, outputs, outcomes and, where evidence is available, impacts that the NIAs had over the three year grant funded period, and the extent to which the overall aims of the NIA initiative were realised.

This section is structured by the following evaluation questions:

- What resources did the NIAs receive?
- What activities have been undertaken by the NIA partnerships?
- What have been the benefits of the NIAs' activities?
- Have NIA partnerships realised the overall aims of the NIA initiative?
- What difference have the NIA partnerships made?

## 9.1 What resources did the NIAs receive?

### 9.1.1. Financial resources

The 12 NIA partnerships were awarded a share of £7.5 million government funding for a three year period from April 2012 to March 2015. The total financial value of resources used by the NIAs was more than £33 million (£33,715,245). This included the initial government grant plus the additional resources from other public and non-public sources, the financial value of services provided in-kind (by partner organisations but not paid for from the initial NIA government grant) and the financial value of the time given by volunteers[221]. NIA partnerships reported a total of almost £11 million of these additional resources over and above the initial government grant came from public sources (of which 34% was national public[222] and 8% local public[223]) and the equivalent value of more than £15 million from non-public sources, including NGOs, the value of volunteer time and the private sector. The ratio of the value of resources leveraged to grant aid was 3.49: 1 (£3.49 for every £1.00 of initial government grant), and 60% of the £33.7m resources related to implementation.

### 9.1.2. Human resources

#### *Overall management and oversight of the initiative*

Natural England provided overall programme management and oversaw the NIAs' implementation. This involved a core team including a NIA programme manager, programme adviser, a lead adviser for monitoring and evaluation, and staff with responsibility for administering NIA financial claims and other programme coordination and support (e.g. administration of the NIA Huddle workspace[224]). The NIA initiative was overseen by a Steering Group (established with representatives of Defra, Natural England, Forestry Commission, Environment Agency and Department for Communities and Local Government), which met regularly throughout the three grant funded years.

[221] Financial value of volunteer time calculated using standardised rates of: General unskilled labour £6.25 per hour, £50 per day; Specialist, skilled trained labour £18.75 per hour, £150 per day; Specialist services £31.25 per hour, £250 per day; Professional services £50 per hour, £350 per day

[222] Any government department or agency e.g. Defra, Natural England, Forestry Commission, Environment Agency including grant schemes Higher Level Stewardship (HLS) etc). May also include others e.g. Kew Gardens. Also includes other Rural Development Programme for England (RDPE) e.g. LEADER; Biosphere

[223] Local authorities and local authority funded organisations. Also includes National Park Authorities, AONBs, Internal Drainage Boards

[224] https://defra.huddle.net/

### *Local support from government agencies*

At the local level, Natural England provided a key support role to the NIAs through a network of dedicated local lead officers. Environment Agency and Forestry Commission also provided support to NIA partnerships. The local support provided included practical advice and input to the planning and implementation of local projects, participation in partnership discussions and meetings, and support in monitoring and evaluation including related to technical queries (e.g. use of BARS and understanding and interpreting national datasets).

### *NIA partnership human resources*

The NIA partnerships generally evolved from existing partnerships within their areas, with only two partnerships being established specifically to bid for the NIA government grant funding. The NIA partnerships included diverse partners, including land managers and farmers, local universities and the private sector. Partnership size varied from less than five formal partners (e.g. Marlborough Downs) to more than 50 (e.g. Birmingham and Black Country).

The initial government grant, and additional resources that NIA partnerships were able to secure, enabled the partnerships to employ dedicated staff (e.g. NIA project managers, officers with community outreach or farm-liaison responsibilities) as well as a range of contractors to help implement habitat improvements in an integrated way. Across the 10 NIAs that provided information, the average number of people specifically employed in Year 3 was 6.4 FTEs per NIA, although this excludes work provided in-kind by partner organisations.

Over the three grant funded years the NIA partnerships also mobilised more than 47,000 days of volunteering, equivalent on average to approximately 6 FTEs per year per NIA. As a comparison, the New Forest reported that in 2014/15 over 900 volunteering days were recorded from people taking part in their work that year. Whilst the NIAs covered approximately 9 times the area of the New Forest, the average number of NIA volunteering days per year was 17.5 times the number in the New Forest. 75% of volunteering in NIAs was on implementation, contributing directly to the delivery of NIA partnership objectives. The amount of volunteering increased in each of the three years, with twice as much volunteering in the third than the first.

## 9.1.3. Support to monitoring and evaluation

A monitoring and evaluation project Steering Group was formed to oversee the monitoring and evaluation, and met formally 15 times over the three grant funded years. Steering Group members also participated in numerous teleconferences and informal discussions and email exchanges, and invested time in providing detailed review and commentary on project deliverables.

Natural England had a lead adviser supporting the monitoring and evaluation process (both nationally and in support of NIA partnerships) since November 2012. Defra also funded two external contracts to support the monitoring and evaluation of the NIA initiative and the NIA partnerships. Phase 1 (2011-12) undertook the initial development of a framework for monitoring and evaluation of NIAs and of an online data capture and reporting system. Phase 2 (2012-15) undertook: further development, management and support of the monitoring and evaluation framework, indicator protocols and online reporting tool; development of approaches and provided support to the assessment of habitat connectivity, ecosystem services and social and economic impacts and contributions to wellbeing; evaluation and annual reporting against progress; research on evaluating against the counterfactual; and a scoping study on the monitoring and evaluation of the Countryside Stewardship facilitated fund.

The total cost of the two external contracts to support monitoring and evaluation as well as the other activities listed was approximately £560,000. Therefore, the total amount spent by Defra on the initiative, including its monitoring and evaluation, was approximately £8 million, excluding the value of time given by Defra and other government agency staff through the Steering Groups and other national and local support.

### 9.1.4. Government staff support to the NIA initiative

Evidence was not available on the total amount of support provided by government agency staff to the NIA initiative nationally and NIA partnerships locally. Data provided by Natural England indicate that they provided an average of almost 7 FTEs / year including national and local support. The Environment Agency estimated total support provided equalling approximately 1.7 FTEs / year, the majority of this (1.6 FTEs / year) focused on local support to NIA project implementation. Natural England and the Environment Agency both noted that these figures are likely to be underestimates.

## 9.2 What activities have been undertaken by the NIA partnerships?

Through the money they had access to, the staff they employed, the volunteers, the network of partner organisations and wider relationships with individuals, schools, community groups and local government in their areas, the NIA partnerships:

***Wildlife***

- Undertook activities to create and restore new priority habitat and to maintain or improve existing priority habitat: over the three grant funded years 14.6% of the total extent of priority habitat in the NIAs was subject to new management actions by NIA partners. Through these activities NIA partnerships improved habitat connectivity, creating less fragmented places for wildlife, and targeted the needs of particular focal and widespread species with the aim of improving their status
- Delivered habitat improvements in an integrated way, by engaging land managers, community groups, schools and volunteers in implementing these activities, and providing opportunities for learning and engagement in the environment. This included training volunteers, developing educational materials for use in schools and encouraging teachers and pupils to get 'hands on' in conservation activities

***People and communities***

- Engaged with local people through events, media outreach and by improving access to and interpretation of the natural environment in their areas (e.g. through new signs and leaflets to help people connect with a wildlife site). NIA partnerships also engaged people in the cultural, spiritual and aesthetic elements of their local landscapes, through arts events and competitions, theatrical productions and local history-based projects
- Encouraged others to take part and contribute, both as volunteers, but also getting local businesses and community groups to work on and take forward natural environment projects that the NIA government grant funding enabled.
- Contributed to the level of knowledge of habitats and species in their areas, through new monitoring activities (such as species and habitat surveys)
- Improved the understanding of landscape scale, partnership-led delivery of natural environment improvements, by testing approaches (e.g. to the delivery and measurement of habitat connectivity) and by forming links with universities and research institutes.

At the national level, Natural England coordinated five Best Practice Network events, each being hosted by a NIA partnership, and two annual forums. Ten climate change adaptation workshops were held (led by Natural England). Under the NIA monitoring and evaluation Phase 2 project, four workshops were held with NIA partnerships. All of these meetings and events contributed to enhanced learning and sharing of information and knowledge.

## 9.3 What have been the benefits of the NIAs' activities?

The NIA partnerships delivered a great diversity of activities, including those related to community engagement in the environment, improving access to nature, enhancing people's knowledge, undertaking research and strengthening networks in their areas. Most of these can be considered to

have had 'intangible' benefits, for which the attribution of quantitative (e.g. monetary) values is not possible or appropriate given the evidence available. None-the-less the scale of activity in the NIAs had, and will continue to have, very real benefits:

- **For habitats and species**, through actions on approximately 18,000ha of habitat: to maintain or improve 13,664ha of existing priority habitat; and restore or create 4,625ha of new priority habitat. The benefits of these activities are likely to be seen eventually in improved status of habitats and species. They also delivered actions on 225km of linear and boundary habitats, such as rivers and hedgerows, and 78 individual site based habitats, such as ponds. It is too early to assess the actual outcomes/impacts of activities undertaken. Many habitat activities delivered multi-functional benefits, in addition to the direct benefits of habitat creation, restoration and enhancement, including: improved habitat connectivity; development and enhancement of recreational corridors; development of open space; and the enhancement of ecosystem services.
- **Enhanced knowledge and data.** The surveying and monitoring activities of the NIA partnerships (and their volunteers) improved the level of knowledge and data related to habitats and species in their areas which will lead to benefits by helping to prioritise interventions and improved management in future. NIA partnerships also contributed to understanding habitat connectivity, with this being an area of considerable research and innovation by the NIA partnerships themselves, and through joint-working with research and academic institutions. This is likely to lead to longer-term benefits in designing future interventions to improve connectivity in NIA areas and elsewhere, and improved measurement of connectivity.
- By improving and creating habitats, **ecosystem services have been enhanced**, and NIA partnerships also targeted specific ecosystem services through their activities. Enhanced ecosystem services result in benefits to people, for example due to cleaner water, reduced flood risk or the economic value of natural products. As NIAs chose to monitor different elements of ecosystem service delivery, the overall scale of the benefit arising from enhanced ecosystem services across all NIA partnerships is not known. Some NIAs completed research into the value of ecosystem services in their areas.
- **For people and communities**, by providing training, improving access to the natural environment and through opportunities to engage more with each other (through working together) and with nature. The number of people receiving training through NIA partnership activities is not known, although based on reporting from five NIA partnerships, by the end of Year 3, a total of 29,496 people had participated in educational visits[225], and much of the work of NIA partnerships with volunteers, contractors and students was designed to provide participants with new skills and confidence (e.g. surveying and practical land management skills) whilst also supporting the NIA partnerships' work.

  Benefits of these activities include local people having a better understanding of the environment, using the environment as a forum for enhanced learning about other subjects, and accrediting individuals with formal qualifications, thus improving people's skills and knowledge and perhaps enhancing future employment prospects. Mobilising volunteers in implementation work is likely to have improved the physical fitness of those participating, and, although changes in visitor numbers to NIA sites as a result of NIA partnership activities are not known, improved access to the natural environment is also strongly associated (through previous studies) with enhanced physical and mental health.

[225] Educational visits are calculated as being the number of participants in educational visits organised by the NIA partnership. An educational visit is defined as any organised visit to an NIA site or centre (e.g. visitor centre) which has an explicit educational objective. They also include visits to schools by NIA partner staff with an educational objective.

- **For the local economy** in their areas, for example by generating employment, showcasing and supporting small-scale local businesses, and enhancing the attractiveness of the areas for visitors.

  In addition to the value of ecosystem benefits, NIA partnerships also sought to enhance their local economies. Although there was no specific monitoring of economic outputs, NIA partnerships: generated some direct employment, with an estimated 6.4 FTEs per NIA reported in Year 3 as well as providing employment for contractors for example in delivering habitat improvement works; supported the production and exchange of natural products, particularly woodfuel; and used place-based marketing to attract more visitors and businesses / investment to their areas.

  NIA partnerships also mobilised additional resources for the delivery of their business plans. In addition to the government grant, NIA partnerships reported additional resources with a total value of more than £15 million from non-public sources, including NGOs, the value of volunteer time and the private sector. If the financial value of volunteer time is excluded (approximately £3 million) the value of additional resources from non-public sources, used by NIAs in their local areas over the three grant funded years, was £12 million.

  The distributional nature of these economic benefits is not known, for example the extent that additional resources that NIA partnerships sourced was offset by reduced spending in other areas, by channelling funding into the NIAs.

The NIA partnerships focused on delivering biodiversity outcomes in an integrated way, evidenced by their work with communities and volunteers, and the diverse organisations involved in the partnerships. This means that many of the outcomes achieved are likely to be leading to multiple benefits. Focusing just on measurable outcomes provides only a partial measure of the overall benefit of the NIA initiative.

## 9.4 Have NIA partnerships realised the overall aims of the NIA initiative?

Table 9.1 provides an overall evaluation of the extent to which the NIA partnerships realised the aims of the NIA initiative. The nature of the evidence makes meaningful overall (collective) reporting difficult, and the initiative aims are also expressed as aspirational goals rather than specific objectives (e.g. no target area of 'places for wildlife' is stated), and this assessment is presented in this context: it is a narrative and largely qualitative overview.

The changes that the Lawton review recommended are likely to only be realised in the long-term and will require sustained and coordinated effort for many years. To be realised at the national level, they would also require change at a much larger scale than achievable in 12 specific areas. The NIA grant funded programme lasted three years, and it would not be expected that the Lawton review recommendations would be achieved in the NIAs, let alone more widely, after this limited period. This assessment considers changes over the three grant funded years, but also the extent to which NIA partnerships put in place sustainable changes (e.g. in the way organisations work together), and established a longer-term legacy.

An evaluation assessment 'score' is included for each of the Lawton review recommendations. This is based on consideration of the evidence, and the extent to which the NIA partnerships led to impacts in their areas. The logic model for the evaluation presents a framework for considering the intervention that the NIA partnerships represent in their areas, and collectively. The qualitative evaluation assessment in Table 9.1 considers the extent to which the NIA partnerships have delivered outcomes and impacts, or if they undertook activities, but where outcomes and impacts have not yet been realised.

### Table 9.1: Evaluation of NIA partnerships' contribution to the aims of the NIA initiative

| The NIAs will… | Evaluation summary | Assessment |
|---|---|---|
| **Key to assessment:**<br>☑☑☑ - Specific outcomes and impacts are evidenced: the aim has been realised<br>☑☑ - A large amount of activity has been delivered, outputs are evidenced and impacts are likely in the longer term: the aim has been partly achieved, and may be realised in future<br>☑ - NIA partnerships have delivered some relevant activities: initial contribution to the aim | | |
| **Become much better places for wildlife**<br><br>Creating more and better-connected habitats over large areas which provide the space for wildlife to thrive and adapt to climate change | • The NIA partnerships delivered activities to maintain or enhance, restore or create a large area of priority habitat, in total approximately 18,000ha (180km$^2$) of which 4,600ha was reported as activities to create or restore new areas of priority habitat. They have also delivered actions on 225km of linear and boundary habitats.<br>• The overall total of 18,000ha represents approximately 14.6% of the total extent of priority habitat in the NIAs (and 3.5% of the total area of the NIAs), and the total of 4,600ha of new habitat created or restored represents 2.3% of the England Biodiversity Strategy goal of an increase in priority habitats by at least 200,000ha.<br>• Activities have also been delivered to enhance habitat connectivity. Monitoring connectivity was an experimental aspect of the NIA initiative and a clear measure of the NIAs' contribution to enhanced connectivity was not possible to establish.<br>• Research by the NIAs also improved understanding of how connectivity may be delivered and measured, for example a paper has been published on landscape scale conservation in Meres and Mosses NIA[226].<br>• NIAs reported on the outputs of interventions e.g. changes in total extent of specific types of priority habitat, or mapping illustrating how NIA activities have created patchworks of habitat / stepping stones for species.<br>• The nature of habitat improvements / creation and species' status means that measurable outcomes and impacts were not expected to be seen over three-year | ☑☑ |
| **Deliver for people as well as wildlife**<br><br>Through enhancing a wide range of benefits that nature provides us, such as recreation opportunities, flood protection, cleaner water and carbon storage | • Some NIAs delivered actions specifically designed to enhance ecosystem services, such as flood protection (e.g. through watercourse maintenance) and carbon sequestration.<br>• Reflecting the integrated approach, wider NIA activities, particularly for habitats, and in providing opportunities for local people to engage with the natural environment will also have enhanced ecosystem services locally, even where this was not the explicit aim.<br>• The NIA partnerships all engaged with their local communities, through activities to encourage participation (e.g. through volunteering) in the natural environment, and to get schools and other local groups to engage with and learn in and from the natural environment. The NIA partnerships carried out actions to enhance access to nature, by creating and improving facilities and information at key sites. NIA partnerships also worked to improve people's experiences of the natural environment and use nature for learning and cultural events, such as theatrical performances, art instillations and events such as photography competitions.<br>• NIAs undertook specific studies which suggest that ecosystem service outcomes have been and will continue to be realised, for example through carbon sequestration and habitat improvements.<br>• Case studies generated by the NIA partnerships (see Annex 3) and evidence from other research, suggest that social and health | ☑☑ |

[226] Jones, M., *Landscape-Scale Conservation in the Meres and Mosses*. British Wildlife, June 2015. Vol 26 No 5, p.337-344

| The NIAs will… | Evaluation summary | Assessment |
|---|---|---|
| | outcomes have occurred in all NIAs. For example, the development of new social networks, or the strengthening of existing ones, through volunteering. | |
| **Unite local communities, land managers and businesses**<br><br>Through a shared vision for a better future for people and wildlife. | • NIA partnerships generally involved a broader range of organisations than traditionally involved in conservation work (e.g. local businesses). In addition, the shared visions for the natural environment and objectives developed at the outset helped improve communication between organisations and encouraged coordinated working.<br>• Local communities played a role in all the NIAs, in particular through volunteering. Farming groups (e.g. NFU and the Farming & Wildlife Advisory Group South West[227]) were partners in four NIAs and one NIA was farmer-led (Marlborough Downs). Land managers undertook activities in all NIAs, particularly those related to sustainable agriculture (under environmental stewardship schemes). Land under environmental stewardship increased by 10.8% across the NIAs over the three grant funded years (2012 – 2015), compared to 7.2% across the whole of England over the same period.<br>• The extent to which local communities, land managers and businesses are 'united' in taking a collective, integrated approach at the landscape scale, and whether the relationships formed under the NIA initiative are likely to continue after the funding period are both uncertain. | ☑☑ |
| **Become places of innovation and inspiration**<br><br>The hope is that they will become places of inspiration, that are loved by current and future generations | • NIA partnerships sought to inspire people: by engaging people in the natural environment as volunteers and through public events; by using nature for learning (e.g. through educational visits and training for volunteers); and by connecting people with the local landscape through cultural and artistic interpretation (e.g. art, theatre, music and photography.<br>• The NIA partnerships completed research and tested approaches, for example related to the delivery and measurement of habitat connectivity and integrated land management (e.g. delivering ecosystem services, such as carbon sequestration or water management). Much of the research was in partnership with local universities and research institutes.<br>• With support from Natural England, the NIA partnerships participated in five best practice events and two annual forums which provided a platform for presenting research and innovative practice to other NIA partnerships. These encouraged sharing of knowledge and experience between NIA partnerships, and supported learning. The outputs from the best practice events are publically available[228].<br>• The success of the NIA partnerships in working with land managers to encourage the uptake and coordination of environmental stewardship options across multiple agricultural holdings with a focus on landscape scale biodiversity objectives, was a factor in the policy decision to introduce the Countryside Stewardship facilitation fund[229]. | ☑ |

[227] See: http://www.fwagsw.org.uk/
[228] See: http://publications.naturalengland.org.uk/publication/4553703239450624
[229] https://www.gov.uk/government/publications/guide-to-countryside-stewardship-facilitation-fund

## 9.5 What difference have the NIA partnerships made?

A report on the methods and results of research to understand the difference the NIA partnerships have made (the counterfactual), over and above what would have happened anyway is presented in Annex 1. A brief summary of the findings of this work in relation to what difference the NIA partnerships have made is presented in this sub-section.

The research provided evidence on the impact of the NIAs whilst also testing different approaches to measuring the counterfactual in complex environmental evaluations, to generate learning for future evaluations of this type. Three approaches were used:

- Approach 1 developed a 'counterfactual scenario' using semi-structured telephone interviews with national stakeholders and NIA partnership chairs as well as an online survey of all NIA partners. All 12 NIA partnership chairs were interviewed. Seven interviews were undertaken with national stakeholders, including the Environment Agency, Forestry Commission, Wildlife Trusts, RSPB, the National Association for Areas of Outstanding Natural Beauty, the Game and Wildlife Conservation Trust and the National Farmers Union. The online survey was shared with 260 individuals, including partner organisations and NIA partnership staff (project officers/managers, monitoring and evaluation leads etc.) the response rate was 46% (n=122).
- Approach 2 was a trajectory analysis that analysed environmental stewardship data to compare trends before and during the NIA initiative.
- Approach 3 was a comparative analysis that attempted to analyse similar data to compare NIAs with areas outside the NIAs.

Key findings from Approach 1 include:

- A substantial improvement in biodiversity outcomes due to the NIA initiative was perceived by survey respondents and partnership chairs, and most national stakeholders felt that the NIA initiative accelerated and broadened the scope of biodiversity activities, although some felt that biodiversity activities funded through environmental stewardship grants might have happened anyway.
- The NIA initiative led to a greater focus on ecosystem services and in particular enhanced outcomes in flood and water management, based on NIA partnership chair interviews. National stakeholders felt that the NIA initiative raised awareness of ecosystem services and led to better coordination between Water Framework Directive and biodiversity activities.
- The NIA grant funding was felt by NIA partnership chairs to have enabled projects with integrated objectives (e.g. combining social and conservation outcomes) that would not have happened in the absence of the NIA initiative. Survey respondents perceived enhanced community relations to be the most improved social and economic benefit achieved by the NA partnerships.
- More effective partnership working was felt to have been a key benefit of the NIA initiative. Partnership chairs expressing that the government grant enabled staff to be employed to coordinate partnerships and encourage joined-up working. National stakeholders felt that NIA partnerships were broader and better coordinated than would have been possible otherwise.

Approaches 2 and 3 were experimental and tested whether comparative data on uptake of environmental stewardship options could provide the basis for assessing the difference landscape scale conservation interventions (such as the NIA initiative) have in a particular area. No statistically significant relationships were found between the presence of the NIA partnerships and the uptake of environmental stewardship options, in either the trajectory analysis (Approach 2) or the matched comparison analysis (Approach 3). This was due to the number of confounding factors, including important changes in agricultural policy over the time period examined and the wide variation among the NIAs themselves.

Analysis of the online tool and the evidence from Approach 1 suggests that rather than increasing the total quantity of non-ELS agri-environment options the NIA partnerships focussed on improved coordination of options; spatially and in terms of the types of options.

Table 9.2 summarises the results from the interviews and survey completed as part of this counterfactual study[230].

**Table 9.2: Summary of views expressed as part of the counterfactual research (Approach 1)**

| Theme | NIA Partners (survey) | NIA Chairs (interviews) | National stakeholders (interviews) |
|---|---|---|---|
| **Biodiversity** | • The majority of respondents considered that biodiversity benefits had been delivered over and above what would have happened anyway. | • The majority of partnership chairs considered biodiversity benefits to have been delivered over and above what would have happened anyway. | • Some national stakeholders felt that biodiversity activities funded through environmental stewardship grants might have happened anyway, but most national stakeholders felt that NIAs sped up delivery and improved coordination of these activities. |
| **Ecosystem services** | • Significant variation in responses about the extent that the NIA initiative has led to additional ecosystem service outcomes across NIAs depending on objectives and nature of NIAs. | • The majority of partnership chairs felt that there was a greater focus on ecosystem service outcomes from habitat management than would have happened otherwise.<br>• Specific benefits noted included flood/water management, woodland products and carbon storage and sequestration. | • The majority of national stakeholders felt that the NIAs raised the profile of ecosystem services and some felt that improved coordination between Water Framework Directive (WFD) and biodiversity activities was achieved. |
| **Social and economic wellbeing** | • Respondents felt that community relations were most improved by the NIA partnerships among these areas of activity. | • The majority of partnership chairs felt that the NIA government grant funding enabled projects with broad objectives that would have struggled to get off the ground otherwise. | • No views were expressed by national stakeholders. |
| **Partnership working** | • 93% of respondents considered partnership working to be more (57%) or much more (36%) effective than would have happened otherwise. | • The majority of partnership chairs felt that funding for staff enabled people to work with and support other partners and challenged silo-thinking. | • The majority of national stakeholders felt that the NIA initiative had led to broader and better coordinated partnerships than would otherwise have existed. |
| **Other findings** | • Narrative comments added to the survey by respondents indicated an overall sense of achievement among partners.<br>• 88% of respondents considered NIAs to have contributed to Lawton's | • The majority of partnership chairs felt that NIAs: provided a forum for bringing partners together around a common vision; and improved awareness of the landscape scale approach within partner organisations. | • Some national stakeholders felt that the NIA initiative served to accelerate and broaden the scope of activities that may have happened anyway.<br>• The majority of national stakeholders felt that: the flexibility of funding enabled |

[230] All 12 NIA partnership chairs were interviewed. Seven interviews were undertaken with national stakeholders, including the Environment Agency, Forestry Commission, Wildlife Trusts, RSPB, the National Association for Areas of Outstanding Natural Beauty, the Game and Wildlife Conservation Trust and the National Farmers Union. The online survey was shared with 260 individuals, including partner organisations and NIA partnership staff (project officers/managers, M&E leads etc.) the response rate was 46% (n=122).

| Theme | NIA Partners (survey) | NIA Chairs (interviews) | National stakeholders (interviews) |
|---|---|---|---|
| | vision, though a three year timescale was deemed too short to achieve large scale and lasting improvements.<br>• A majority of respondents identified improvements in the development of a shared vision and sharing of information and resources.<br>• A majority of respondents expressed that NIA status generated wider stakeholder engagement and had benefits in attracting match funding.<br>• Additional workload and administrative burden were the main challenges expressed by the NIAs. | • The majority of partnership chairs felt that the NIA government grant funding and NIA status acted as a catalyst for match funding and galvanising partners. Flexibility of use of funding was seen as critical.<br>• Most partnership chairs felt that three years not long enough to make a real difference.<br>• Some partnership chairs felt that the NIA government grant helped 'plug a gap' left by cuts to statutory agencies and local authorities who might otherwise have funded some of the types of activity completed by NIA partnerships. | new types of partnerships; and that committed, enthusiastic partners made a relatively small amount of money go a long way.<br>• Some national stakeholders also felt that the NIAs helped to bring statutory agencies together and improved communication between them. |

# 10. Lessons Learnt

This section focuses on the overall evaluation question:

- At the end of the grant funded period, what have we learnt about partnership-led delivery of landscape scale conservation, and its monitoring and evaluation?

In doing so it seeks to answer these evaluation sub-questions:

- What has worked well and why?
- What has been challenging and why?
- What are the lessons for complex environmental evaluations?

## 10.1 What worked well and why?

This sub-section summarises aspects of the NIA initiative that worked well and reflects on why this was the case. This in turn provides some wider lessons for partnership-led delivery of landscape scale conservation initiatives.

### 10.1.1. Shared objectives and joined-up working

The process of creating shared environmental visions for each NIA was valuable. This brought diverse partner organisations together to discuss and agree on priorities and was at the heart of all that has happened subsequently. This was noted by one partnership chair as a reason why areas that were not successful in winning government grant support have proceeded anyway (NIA partnership chair interviews). There is no centrally held database of locally determined NIAs. A number of LNPs and others have identified local NIAs and in some cases developed a process to support these. Examples include: Greater Manchester Wetlands, two Cotswold Ecological Networks, and the Lea Catchment NIA.

Sharing of data, information and knowledge between and within NIAs was very successful. Through joint working on common projects, and, in some instances, by sharing staff and office space, communication was improved between organisations that had traditionally not worked together. This led to the sharing between partner organisations of mapping and survey data, knowledge and expertise in conservation management, and machinery and equipment necessary to deliver NIA projects. The NIA best practice events, annual forums and other workshops held during the three grant funded years were also recognised as providing a good basis for connecting with others and sharing experiences across NIAs. It is not clear how much this sharing extended beyond the NIAs (Year 2 monitoring and evaluation workshop and NIA partnership chair interviews).

Joint working within NIA partnerships, and with statutory agencies (Natural England, Environment Agency and Forestry Commission) led to improved coordination and the identification of opportunities to achieve outcomes that might otherwise have been missed (NIA partner survey and partnership chair interviews).

Elements of the NIA programme that could valuably be reflected in future initiatives include: development of shared visions; diverse partnerships involving organisations who may not normally work together; and clear lead and local support from statutory agencies and government.

### 10.1.2. Delivering for nature in an integrated way

NIA partnerships differed from other existing landscape scale conservation due to the breadth of their objectives (e.g. combining biodiversity outcomes with social and economic benefits) and the greater flexibility of the grant funding compared to other funding sources (e.g. HLF, agri-environment), providing opportunities to explore and exploit multiple benefits (NIA partnership chair interviews). For example, in Dearne Valley restoration of floodplain habitat through direct land management resulted in the creation of open water and lowland wet grassland habitat and flood storage potential, improving flows and habitat diversity.

The integrated and coordinated approach to delivery meant that NIA partnerships also promoted conservation outside protected or designated areas, due to the diversity of partners and the landscape scale (rather than site / specific habitat type) focus (national stakeholder interviews).

### 10.1.3. People and partnerships

The people working within the NIA partnerships were essential to their success. Enthusiasm, energy and expertise in the NIA partnerships helped them achieve so much in a short time (NIA partner survey and partnership chair interviews). New partnerships require sufficient time to set up. The existing expertise that existed in most NIA partnerships related to partnership management and governance was also an important resource in the early stages (NIA partner survey and partnership chair interviews). Nevertheless, entirely new partnerships were established in two NIAs.

Mobilising people and community groups locally was of great benefit. As the amount of volunteer time reported in sections 4 and 5 illustrates, volunteers played a major role in successful implementation.

At the national level, in 2012 the Secretary of State requested that Natural England, the Environment Agency and the Forestry Commission work together to support the NIAs, reflected in the level of support provided to NIA partnerships, reported in sub-section 5.6. The role of statutory agencies in supporting the NIA initiative and NIA partnerships was noted by many partnership chairs as being an important factor in their success (NIA partnership chair interviews).

### 10.1.4. The value of the government grant

Being awarded government grant funding was a great advantage for NIA partnerships, enabling them to fund project staff in a range of roles that have all improved the delivery of biodiversity outcomes, engaged with communities and land managers and coordinated activities under agreed priorities (NIA partnership chair interviews). This appears to have been a particular success factor in NIAs, as other funding sources available to conservation organisations generally do not allow the flexibility that the NIA government grant did to employ people in a range of roles, and to work towards locally defined objectives.

The government grant has also been a key factor in mobilising additional resources, providing NIA partnerships with capacity to encourage match funding, engage in proof-of-concept work (e.g. for bio-fuel business), and show potential partners that real change is possible (NIA partnership chair interviews).

The flexibility that was inherent in the design of the NIA programme and government grant funding was referred to by NIA partnership chairs (through interviews) as a key factor in their success, by giving partnerships the freedom to use funding where most needed (e.g. to recruit staff) and to focus on locally specific priorities.

### 10.1.5. Improved local knowledge and data

The requirement to follow a structured monitoring and evaluation process, and the subsequent wealth of data and information that was collected by NIA partnerships, was seen as a challenge by some NIAs. However, it also provided benefit in the form of an evidence base to make the case for how effective NIAs were in support of funding applications (national stakeholder interviews).

NIA partnerships learnt from research (e.g. related to ecosystem service values), and ecological surveys of habitats and species in their areas, often benefitting from (and training) volunteers. This increased the level of knowledge and data in the NIAs related to habitats and species. Wider research tested and improved understanding of how to deliver and measure habitat connectivity, for example. There were many successful collaborations with education and research sectors, which added value to a number of NIA projects.

## 10.2 What was challenging and why?

This sub-section reflects on what aspects of the NIA programme and NIA partnerships were challenging and why. This in turn provides some wider lessons for partnership-led delivery of landscape scale conservation initiatives.

### 10.2.1. Time pressures before and during the initiative

The timescale between the announcement of the national competition, submission of bids by prospective NIA partnerships and the commencement of work by successful partnerships was reported by some partnership chair interviewees to be relatively short, meaning that much of the community and partner buy-in had to be developed during project implementation. They also noted that this may have resulted in lower levels of consensus being developed amongst partners early on (NIA partnership chair interviews).

Where NIAs were delivered by new or much expanded partnerships than had previously existed, the time taken to set up and establish working-practices posed some challenges. For example, it meant that it was difficult to meet delivery expectations in the first year of the programme (NIA partner survey, and partnership chair interviews).

Three years of grant funding was felt by some NIA partnership chairs (through interviews) to be too short to see real, sustainable change, especially for biodiversity outcomes, a view that is supported by previous research (see Appendix 2 for more information of timescale of impacts). The Lawton review recommended that the initiative should be funded for 'at least five years'.

### 10.2.2. Delivering change at a landscape scale

The size of some NIAs has meant that achieving delivery sufficient to realise appreciable change across the whole NIA was challenging (national stakeholder interviews). This is perhaps reflected in the data on biodiversity outcomes and impacts, which show that approximately 14.6% of the total extent of priority habitat within all NIAs was subject to NIA partnership management actions (representing approximately 3.5% of the total area of the NIAs).

The size of the NIAs (expectation of 10,000-50,000ha in the original criteria) may also have reduced the likelihood of farmer-led partnerships, as in many places an area of this size would include hundreds of holdings. One national stakeholder interviewee suggested at least 250 holdings might be expected in an area of 10,000-50,000ha (national stakeholder interviews), illustrating how challenging it would be to form a partnership that represented a majority of land managers in such an area. It is perhaps not a coincidence that the farmer-led NIA (Marlborough Downs) was also the smallest in terms of area, representing just over 10,000ha, while the average (mean) size of the NIAs was almost 43,000ha.

### 10.2.3. Sustaining delivery for the long-term

A key challenge will be continuing delivery of NIA objectives after the NIA government grant funding has ended (March 2015). All the NIA partnerships have considered how they will continue to deliver the NIA objectives in the future, focusing on the period to 2020. Based on information from interviews with NIA partnership chairs (January 2015) and NIA progress reporting, four NIA partnerships had already secured funding to support aspects of delivery at the end of the grant funded period and all NIAs were actively seeking funding to support their ongoing work. Common sources of funding being targeted included the Heritage Lottery Fund (for Landscape Scale Partnerships) (mentioned by six of NIA partnerships) and European Union funding (e.g. LIFE+[231] and INTERREG[232]) (mentioned by four of the partnerships). In addition, in January 2015 Defra announced the Countryside Stewardship facilitation fund. Groups formed from four of the NIAs were awarded funding when the results of the first round of facilitation funding were announced in July 2015[233].

[231] See: http://ec.europa.eu/environment/life/funding/lifeplus.htm
[232] See: http://www.interreg4c.eu/programme/
[233] See: https://www.gov.uk/government/publications/countryside-stewardship-facilitation-fund-successful-applications

These groups were established to take forward land management action with Countryside Stewardship funding within the area, but working to smaller boundaries than the associated NIAs.

NIA partnerships have also explored other ways to support ongoing delivery of their objectives and principles: six NIA partnerships specifically referred to existing Local Nature Partnerships, or other established local natural environment focused partnerships, as being integral to continued delivery of NIA objectives after March 2015. Locally-determined NIAs are understood to have been implementing projects based on the NIA approach. There is no centrally held database of locally determined NIAs. A number of Local Nature Partnerships and others have identified local NIAs and in some cases developed a process to support these. Examples include: Greater Manchester Wetlands, two Cotswold Ecological Networks, and the Lea Catchment NIA.

Despite the expressed intent, the extent to which NIA partnerships will continue to be actively delivering NIA objectives is not known. Interviews with NIA partnerships in 2014 suggested that while ongoing conservation work is expected in all NIAs, this may not be branded as delivering NIA objectives or the NIA approach in future. Three NIAs interviewed explicitly expressed that the NIA had developed a strong local identity. Ongoing monitoring and reporting would be needed to understand the extent to which NIA objectives have been delivered in the longer term.

### 10.2.4. Monitoring and evaluation

#### *Monitoring and evaluation of a national initiative with diverse local projects*

As reported in the overall evaluation in section 9, assessing the contribution made by NIA partnerships with different local priorities to the realisation of the national NIA initiative aims was a challenge. Local objectives tended to be quite specific (e.g. focusing on restoring a target area of a particular habitat type), while national aims were broader and aspirational, such as creating 'more', 'bigger' and 'better connected' habitats without specific, measurable target outcomes. This reflects the design of the initiative, which sought to meet the Lawton review recommendations, while including funding for a limited number of NIAs and encouraging flexibility in delivery at the project level (i.e. individual NIA partnerships). The diversity of NIAs (which was intended and in some ways a strength) meant that it was often difficult or meaningless to aggregate data across all NIAs in order to evaluate at the initiative level.

A lot of data collection was optional and thus locally relevant only (selected to be relevant to local level objectives), and therefore not useful for evaluating the initiative as a whole. In addition, the indicators that were designed to be reported by the NIAs generally related to activities and outputs (e.g. area of priority habitat on which actions were delivered), rather than impacts (e.g. the establishment of a new habitat) which generally require more than a three year period to measure. The indicators used have provided the basis for generating local data, and if measured over the longer-term could provide a valuable measure of change.

Even though it was inherent in the NIA initiative design, the experimental nature of the monitoring and evaluation framework and indicators, and the fact that both were developed during NIA implementation, was a challenging process for NIA partnerships and the evaluation team.

Recognising that the reality of policy implementation requires a pragmatic approach, will often be constrained in terms of available resources and time, and may be affected by changes in funding and policy priorities, key lessons from the monitoring and evaluation of the NIA initiative include:

- **The importance of baseline data**: baseline data, essential to landscape scale planning and monitoring and evaluation, were generally of insufficient quality to support analysis of change resulting from NIA actions, either by virtue of the resolution, currency or classifications. This was particularly true of land cover, land use mapping and records of other actions within the NIAs – that provides surrogate indicators for many of the monitoring protocols. More specific guidance to establish the monitoring framework datasets at the outset (or even at the project formulation stage) and investment in standardised land cover data would allow cross-project support and capacity for analysis of change.

- **The standardisation of indicators and protocols**. To facilitate cross-NIA analysis and the ability to monitor change the experience from the NIA monitoring and evaluation suggests the need for: standardised indicators with known data sources at suitable resolutions to monitor change; and a reduction in the options for multiple indicators since this limited the cross-NIA analysis. The flexible nature of the indicator protocols to facilitate learning and the changes to protocols needed added complexity both to the monitoring and evaluation process for the NIAs and required adjustments to the reporting tools. In the context of achieving a balance between flexibility and consistency (the relative need for which will depend on monitoring and evaluation objectives), establishing a firmer and simpler monitoring and evaluation framework and more directed approach to indicators would support greater efficiency, consistency and offer the ability to conduct cross-project and programme level analysis.
- **The earlier consolidation of the approaches and identification of relevant tools and datasets**. Guidance on some of the more complex monitoring and evaluation themes and indicators (contribution to ecosystem services and connectivity etc.) came after the first year when investment in approaches had already been made. Other indicator protocols also changed during the course of NIA implementation. Clearly there was the need for developments and innovation, however, where possible, agreeing approaches and relevant tools in advance to support analysis, or using national programmes of analysis delivered to the NIA projects, would be more likely to support the effective and efficient completion of monitoring and evaluation.

A particularly important over-arching lesson therefore emerges from this and relates to the design of future monitoring and evaluation of similar natural environmental policy or initiatives:

- Flexibility in individual project level implementation (as with the NIAs) constrains the extent to which aggregate evaluation at the programme level (initiative wide) is possible or meaningful; and,
- The alternative to flexibility is to create rigid policy or initiative level objectives that can be aggregated across the initiative through greater comparability. Ideally these would build on existing national monitoring and datasets (and core indicators) to allow for efficient comparative analysis.

### *The resource required for local monitoring*

All NIA partnerships were required to include monitoring and evaluation in their business planning, however monitoring and evaluation required a lot of time and energy and needed external support. Specific challenges included: collection of data from diverse partner organisations; understanding and applying changing indicator protocols; and issues with the functioning and use of the online reporting tool especially in Years 1 and 2 of the programme (Year 2 monitoring and evaluation workshop and NIA partnership chair interviews).

The NIA partnerships required external support to effectively complete their monitoring activities, both from the monitoring and evaluation project team, and from Natural England and other statutory agencies. A more streamlined approach and ongoing support are likely to be required if NIA partnerships are to continue monitoring.

### *Development and use of the online reporting tool*

The online reporting tool, developed and supported within the scope of the monitoring and evaluation project, provided a single portal to record NIA data following a common reporting structure. It allowed NIA partnership registered users to submit online reporting of indicators, textual narrative and caveats to the information and also to submit and view other documents associated with the NIA initiative reporting. It further supported the selection and export of queried data in spreadsheet form for further analysis. It allowed a public, non-registered user view of the data across a theme for a selected NIA or across all NIAs.

The tool was a highly flexible system that allowed both standard protocols for core indicators and optional indicators. It was designed to maintain consistency of the submitted data and provide interactive reporting and outputs, and given the definition of the protocol options allowed the NIA partnerships to change and/or add indicators and use locally-defined variables.

The experience from the development and operation of the online reporting tool highlights the tension between liberty and structure. With any such system if users are allowed to create features, units etc., it will be harder to systematically analyse the data. The system also 'allowed' users to make errors in their data entry and this required intensive user support. Overall, however, the provision of a common reporting structure linked to the protocols with a single portal for all the NIAs to use to record their data has worked reasonably well.

Many of the challenges arose from some of the technical features of the tool, including the user roles and profile creation which were particularly elaborate and difficult to modify. Complications also arose from the tool being initially developed as part of the Phase 1 contract, and then taken over and developed as part of the Phase 2 contract, as well as some of the indicator protocols being developed leading to changes required in the tool. In its operation by the NIA users, despite the level of guidance, training and support provided, some users struggled to operate the tool independently. This resulted in the need for considerable support to facilitate consistent reporting, and required a high level of resource to be committed from both the contractor and Natural England.

## 10.3 What are the lessons for integrated land-use management initiatives?

Reflecting on the outcomes of the evaluation of the NIA initiative, the following lessons were identified relating to possible future integrated land-use management initiatives:

- An important success factor for the NIA initiative was the flexibility allowed in the use of the grant funding (i.e. how it could be spent locally). As intended, this enabled local projects to develop tailored expenditure plans aligned with local needs and objectives.
- The NIA partnerships have shown that integrated delivery can work, e.g. delivering conservation using volunteers and by engaging local schools and communities in their local environment can deliver win-wins for nature and for local people. Bringing local organisations together around shared objectives can help support joined-up working.
- Where projects are to be led by partnerships (which was largely successful in NIAs), the time and effort needed to establish and maintain partnerships where they do not already exist should be factored into policy planning and implementation.
- National (government) leadership and recognition was perceived as important in the NIA initiative: it motivated people delivering projects locally and provided authenticity and visibility that was used, for example, to support funding bids and to encourage wider engagement. This may not be present to the same extent for local, voluntary and unfunded 'NIAs'
- One of the aims of the NIA initiative was to test and develop approaches to delivering integrated landscape scale, partnership-led conservation. In designing innovative and experimental approaches it should be recognised that monitoring requires resources, skills and planning, and local projects may require support. In addition, longer-term monitoring may be required (e.g. for five years or more after end of funding period) to understand if sustained change in approaches to delivery, and associated outcomes, are realised.
- There may be different approaches and priorities between monitoring to assess progress in delivering local initiatives with evaluation of effectiveness across an initiative as whole. This can lead to a potential tension between reporting on monitoring project outcomes (e.g. successes in achievement) and evaluating them critically. Monitoring, and potentially evaluation, require the building of working relationships and connections with projects,

which can conflict, or be perceived to conflict, with independent evaluation. While this is a common tension in evaluation, protocols and procedures can help overcome these issues.

## 10.4 What are the lessons for designing evaluations of complex environmental policies?

This sub-section reflects on what has been learned from the monitoring and evaluation of the NIA initiative, and in particular what lessons there are for the evaluation of complex environmental interventions.

### 10.4.1. Setting clear programme level objectives

Setting clear overall (programme level) evaluation objectives to reflect the relationship between the programme and project level objectives can aid robust evaluation. If the intention is to evaluate at the programme level (such as the NIA initiative as a whole), then there should be iteration with the policy objectives from the outset to ensure that clear programme level objectives are set that can be delivered by the individual projects, since only if you know what the policy/initiative is intended to achieve can you then evaluate it effectively at the level intended. If flexibility of delivery is desired, then a programme level evaluation may be inappropriate: each project can instead be treated as a case study and a case study approach taken to evaluation and the lessons learnt.

If programme-level evaluation of programmes that are based around local variation and flexibility is desired, this should recognise that flexibility will limit the ability to report on overall outcomes and impacts. Flexible and devolved interventions require equally flexible monitoring and evaluation. Overall evaluation can be supported by setting clear programme-level objectives and success factors against which progress can be measured. A mixed approach that allows levels of consistent monitoring and evaluation for some objectives and more flexible reporting to reflect local objectives may be effective, but where possible this needs to be established early in the project cycle. Objectives set for the policy and/or evaluation can use existing relevant indicators from existing monitoring programmes and datasets wherever possible.

### 10.4.2. Evaluation framework design and theory of change

An effective evaluation is likely to require an evaluation framework supported by a clear logic model and theory of change[234] model(s), and mechanisms for testing / proving the theory of change (i.e. understand the processes that are occurring). Literature review and expert input can be used to inform and validate the theory of change and causal links. The theory of change approach is useful where the links between activities and outcomes are not straightforward or where providing comprehensive evidence on final impacts may not be possible, as was the case with the NIA initiative.

The evaluation method should ideally be designed at the same time as the intervention design, in recognition of the limitations that an intervention may impose on the evaluation. Full impact evaluation may not be possible in some complex policy interventions, especially where these are delivered over relatively short timescales, and it may be appropriate to scope during the policy design phase what it is possible for an evaluation to deliver.

Where possible a baseline should be established at the outset of an intervention to support monitoring. This can also be useful as part of a theory of change approach where time lags are expected before outcomes and impacts are realised. The creation of novel geographic entities and the varied objectives of the NIAs meant that in most cases locally specific baselines were not readily available at the outset. The NIA monitoring and evaluation project supported the NIAs in building a practical evidence base and undertaking research which will be valuable in the future.

[234] HM Treasury (2011) *The Magenta Book Guidance for Evaluation*: A theory of change 'involves the specification of an explicit theory of "how" and "why" a policy might cause an effect which is used to guide the evaluation. It does this by investigating the causal relationships between context-input-output-outcomes-impact in order to understand the combination of factors that has led to the intended or unintended outcomes and impacts' (p.57, Box 6c)

When considering the counterfactual, it would be helpful if options considered in the early stages of developing a policy / initiative had undergone some form of options appraisal (*ex-ante* assessment). Such assessments can help inform the development of counterfactuals for any subsequent evaluation at the policy / initiative level.

### 10.4.3. Timescale of outcomes and impacts

A key challenge in the evaluation of the NIA initiative has been reconciling the great amount of activity delivered by NIA partnerships with the fact that many of the outcomes and impacts of this activity (particularly in relation to habitat and species changes) will not be seen during the life-time of the initiative.

In designing an evaluation it is important to recognise that timescales of delivery (activities and outputs) may differ from intervention outcomes and impacts, and that many impacts, especially in natural environment initiatives, cannot be detected over time periods of less than 5 years and in some cases decades (see Appendix 2 for more information on timescales of impacts for biodiversity).

This points to the need for a 'theory of change' model as a basic requirement for any such evaluation, which elaborates on and underpins any logic model, in order to understand better the attribution routes from inputs/activities to outcomes and impacts, and enable the measurement of intermediate outcomes that may indicate progress towards impacts. Where possible, therefore, longer-term monitoring should build on existing data and plan for the reassessment of key indicators after the intervention has completed. Process evaluation can also help to assess if delivery is on track to achieve intended outcomes and impacts, even if these are beyond the initial evaluation period.

### 10.4.4. Combining qualitative and quantitative information

A combination of quantitative monitoring data (e.g. in relation to habitat management actions) and qualitative information (e.g. from interviews and surveys) was used in measuring and understanding the achievements of the NIA partnerships.

The use of semi-structured interviews with NIA stakeholders was informative in providing perspectives on the difference that the NIAs have made compared to what might have happened in their absence. Interviews are also useful for gauging the effectiveness of interventions such as training or engagement with communities which do not have a 'physical' output. The use of case studies for social and economic wellbeing outcomes added useful depth to the analysis, and could be applied in other topics where outcomes are difficult to measure using quantitative indicators and/or where data are not available.

Natural environment policy is often delivered over relatively small and diverse areas, with multiple objectives, with implementation over shorter timeframes than the ecological processes being supported. These characteristics make statistical analysis challenging because of the likely scale of impact (relatively small), large number of confounding factors (signal to noise ratio), long time scales and often small population size. Qualitative data collection and social science research methods may provide relatively low-cost evaluation results compared to quantitative approaches that require ecological survey or other monitoring effort. The Countryside Stewardship facilitation fund scoping study (CEP, 2015) highlighted the importance of a theory of change model, as did the counterfactual study for the NIA evaluation in understanding attribution routes from processes to likely outcomes and impacts (see Annex 1).

### 10.4.5. Use of existing datasets

The use of national datasets and centralised analysis where possible can support effective, robust and efficient evaluation of local delivery while providing a basis for programme-level evaluation. Self-reported data and locally specific indicators can play a useful role in regard to representing the diversity of NIAs. However, the NIA initiative illustrated that such approaches require support and facilitation, and therefore resources, and may result in data that are not comparable across intervention areas (see also sub-section 10.2.3). However, user generated data helps create locally recognised evidence to promote and describe the value of an intervention and has been used by

individual NIA partnerships in support of funding applications. Where user generated data is sought, it should be clearly defined and limited to a small number of key indicators of change and integrated into local level evaluation only.

### 10.4.6. The use of modelled approaches

Direct monitoring of activities and the cross-tabulation of these activities as contributing to specific objectives (e.g. area of habitat under management, actions contributing to water quality) has been an easier approach to adopt for the NIA partnerships than where indicator protocols proposed modelling (e.g. diffuse pollution modelling). Although the modelled approaches offer much, they require specific expertise and resourcing. Within the NIA initiative modelled approaches have only been successful when run external to the NIA partnerships and there was often no repeat modelling to support monitoring and evaluation (e.g. ecosystem service modelling that was too late to inform action designs and only run once, so did not contribute to monitoring and evaluation).

### 10.4.7. Regular progress reporting to support monitoring and evaluation

Regular progress reporting by intervention participants (e.g. the quarterly progress reports that the NIAs were required to submit to Natural England) can be a valuable data source for evaluations. This can be facilitated if they are designed and structured to aid combining and/or comparison.

Monitoring and evaluation operated as internal reporting, and subsequently external secondary analysis of reporting. This missed the opportunity to have a direct monitoring and evaluation approach through interviews and examination of outputs by an external and independent body that has the remit to provide advice to redirect project plans or programme plans.

### 10.4.8. The risk of investment in bespoke monitoring tools

Bespoke quantitative tools require resources for design, testing, refinement, implementation, monitoring and supporting users throughout the intervention period. In designing an appropriate approach, the monitoring and evaluation effort should aim to be proportionate to the policy investment. Careful consideration is needed in the commissioning and design of bespoke IT systems for short-term policy interventions (or those only funded for a short period) to ensure that they are proportionate and provide value for money, taking into account the design, maintenance implementation and support costs. Policy priorities can change which means it may be difficult to predict how long a system may be required, and the intention was that NIA partnerships, and locally determined NIAs would continue to use the NIA online reporting tool until 2020.

### 10.4.9. Recognising what is possible and appropriate

Recognition is needed that, for complex evaluations, what may often be considered the 'gold standard' for evaluation (and for counterfactuals) in some natural science sectors (e.g. medicine) i.e. randomised control trials (RCTs), are simply neither feasible nor meaningful in relation to many natural environmental policy outcomes/impacts. An emphasis on quantitative indicators may therefore not always be appropriate. Consequently, it may be helpful to use the sort of methods that can best deal with complexity and uncertainty, which are often social science research methods (qualitative and quantitative), since these are better placed to take into account the wider social context.

There can also be a tension where monitoring and evaluation are combined in one project, where monitoring requires support to participants and/or projects, but where evaluation (especially summative) needs to be objective. This requires consideration when such aspects are specified, procured and managed.

# 11. Conclusions

The section presents conclusions from the monitoring and evaluation of the NIA initiative over the three government grant funded years (2012-15). It also reflects on the future and some potential next steps for the NIAs and landscape scale interventions.

## 11.1 Conclusions

This report illustrates that the NIA partnerships achieved a great deal in a relatively short period of time, meeting, and in some cases exceeding, their project objectives. They formed or developed partnerships, established shared visions and objectives for the natural environment in their areas, and implemented ambitious work programmes to deliver these objectives. Over the period 2012 to 2015, the NIA partnerships secured additional resources with a total value of £26 million, in addition to the initial government grant. Based on NIA financial reporting to Natural England, 60% of the total resources were used for project implementation[235,236]. The investment made by government in the form of the NIA grant, has enabled the NIAs to start to unlock and deliver integrated landscape scale activity that inspires people, mobilises resources and improves the natural environment.

The NIAs delivered a range of integrated benefits, including: real change in the quality and quantity of priority habitats; enhanced ecosystem services; worked with a wide range of partners and involved many people as volunteers or visitors, leading to benefits for local communities and the economy.

Key lessons from the evaluation of the NIA initiative included that:

- shared visions and objectives for the NIA partnerships improved communication between organisations, encouraged joined-up working and more integrated implementation;
- partnership-led, landscape scale land management contributed to successful implementation. However, sufficient resources need to be dedicated to local coordination and management if partnerships are to function well;
- the flexibility inherent in the design of the initiative was an important success factor;
- partnerships bringing conservation organisations together with local businesses, land managers, research institutions and local authorities proved effective in delivering land management in the integrated way envisaged by the NIA initiative;
- visible government support and leadership and a clear policy message provided impetus for local project delivery and helped local projects in sourcing additional resources;
- the scale of funding available to NIAs was critical to their success; the initial government grant, for example, enabled partnerships to employ staff, leverage match-funding and initiate demonstration projects that have encouraged others to get involved; and,
- longer term activity (beyond the three years of grant funding in NIAs) will be required to deliver sustainable impact, with associated monitoring and evaluation to understand if lasting changes have been realised.

Professor Sir John Lawton's Making Space for Nature (Lawton *et al*., 2010) envisaged the 12 initial NIAs[237] as being part of a wider and longer-term change in approach to wildlife conservation. The government grant funded NIAs represented an initial contribution to the 'step-change' that Professor Sir John Lawton envisaged: a new, approach to ecological restoration which rebuilds nature and creates a more resilient natural environment for the benefit of wildlife and ourselves, with a vision to 2050. The true value and impact of the 12 NIAs will only be realised in the longer-term as achieving ecological restoration will require many years of effort, and if they inspire and help

[235] This represents an equivalent value of £20.3m, compared to the initial government grant of £7.5million
[236] i.e. land management activity / improvement works including capital items
[237] Referred to as ecological restoration zones in the Lawton Review.

provide the business case to enable others to follow suit and build on the experience and knowledge developed over the last three years.

Groups formed from four of the NIAs are among the 19 projects that were awarded funding under the first round of Countryside Stewardship facilitation fund grants in July 2015. Other groups with a proximity to NIAs, for example Farmers for Aqualate with the Meres and Mosses NIA, were asked to take account of local NIA objectives as well as other relevant strategies. Learning from the NIA initiative, the Countryside Stewardship facilitation fund represents a new approach within agri-environment funding (by encouraging groups of farmers and other land managers with neighbouring land to deliver Countryside Stewardship priorities in a way that creates better-connected habitats across the landscape)) which may help in optimising biodiversity outcomes at the landscape scale.

The lessons learnt from the monitoring and evaluation of NIAs that are presented in this report are also available as an input to the development of future policy on the integrated managed natural resources including, for example, as set out in the government's response[238] to the Natural Capital Committee's third State of Natural Capital report.

## 11.2 Next steps

The 12 NIAs all made a commitment to work towards delivering their longer-term (2020) visions, and as a next step it will be valuable to continue to observe the longer-term delivery in the NIAs, and the extent to which they are able to continue to deliver their NIA objectives using alternate funding streams. All NIAs have sought additional funding, and it is hoped that this will enable the continuation of activities under the same partnerships, and over the same landscape areas.

The scale of activity in the Countryside Stewardship facilitation fund areas is far smaller than under the NIAs: the largest CSFF group represents an area of approximately 9,000ha (the smallest less than 1,000ha) compared to 10,000ha which was the minimum size recommended for a NIA. The total available funding for CSFF is £7.2 million over five years, funded under the England Rural Development Programme and therefore targeting agricultural landscapes, compared to a similar amount over three years for the NIAs addressing a wider range of landscapes. Nonetheless, the monitoring of delivery in these areas will be an important next step in understanding if alternative approaches to developing bigger, better, more and less fragmented places for wildlife are possible, given current and foreseeable economic constraints.

The ultimate test of success will be whether the NIA partnerships continue beyond the grant-funded period, and remain focused on landscape scale conservation, or whether these diverse partnerships disperse or become focused on different priorities in response to other funding opportunities. This suggests the need to revisit the NIA partnerships after a period of time, e.g. after another three or five years in order to understand whether this mode of delivery (landscape scale, partnership approach) continues working and to what extent expected impacts have been realised over the longer timescale.

[238] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/462472/ncc-natural-capital-gov-response-2015.pdf

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# Abbreviations and Acronyms

| | |
|---|---|
| ALT | Agricultural Landscape Types |
| AONB | Areas of Outstanding Natural Beauty |
| BAP | Biodiversity Action Plan |
| BARS | Biodiversity Action Reporting System |
| BTO | British Trust for Ornithology |
| CEP | Collingwood Environmental Planning Ltd |
| CSFF | Countryside Stewardship Facilitation Fund |
| $CO_2$ | Carbon Dioxide |
| Defra | Department for Environment, Food and Rural Affairs |
| DVGH | Dearne Valley Green Heart |
| ELS | Entry Level Stewardship |
| ES | Ecosystem Services |
| EYFS | Early Years Foundation Stage |
| FAQs | Frequently Asked Questions |
| FTE | Full-time equivalent |
| GIS | Geographic Information System |
| ha | Hectare |
| HLF | Heritage Lottery Fund |
| HLS | Higher Level Stewardship |
| JNCC | Joint Nature Conservation Committee |
| km | Kilometre |
| KS1 | Key stage 1 |
| LDF | Local Development Framework |
| LEP | Local Enterprise Partnership |
| LNP | Local Nature Partnerships |
| M&E | Monitoring and evaluation |
| MENE | Monitor of Engagement with the Natural Environment |
| MHW | Mean High Water |
| NBCCVM | National Biodiversity Climate Change Vulnerability Model |
| NCA | National Character Area |
| NE | Natural England |
| NERC | Natural England Commissioned Report |
| NEWP | Natural Environment White Paper |
| NFU | National Farmers Union |
| NGO | Non-Governmental Organisation |
| NIA | Nature Improvement Area |
| PhD | Doctor of Philosophy |
| PHI | Priority Habitats Inventory |
| PROW | Public Right of Way |
| RDPE | Rural Development Programme for England |
| RSPB | Royal Society for the Protection of Birds |
| SSSI | Site of Special Scientific Interest |
| SUDS | SUDS: Sustainable Urban Drainage Systems |
| tCO2e | Tonnes of carbon dioxide equivalents |
| WDF | Water Framework Directive |

# Appendices

**Appendix 1: Indicators Selected and Completed by the NIA Partnerships**

**Appendix 2: Data Sources and Methods of Analysis**

**Appendix 3: Progress Against Individual NIA Objectives**

**Appendix 4: Participants in Monitoring and Evaluation Workshops and Meetings**

# Appendix 1: Indicators Selected and Completed by the NIA Partnerships

**Note:**

- The indicators below represent the core and optional monitoring and evaluation framework indicators. Locally developed indicators have not been included as these were not part of the original monitoring and evaluation framework. Local indicators are listed in Table A2.

**Table A1: Monitoring and evaluation framework indicators selected by NIA partnerships**

| Theme and sub-theme | Indicator code | Indicator title | Status of indicator | Birmingham & Black Country | Dark Peak | Dearne Valley | Greater Thames Marshes | Humberhead Levels | Marlborough Downs | Meres & Mosses of the Marches | Morecambe Bay | Nene Valley | Northern Devon | South Downs Way Ahead | Wild Purbeck | No. Selected |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Biodiversity** | | | | | | | | | | | | | | | | |
| **Habitat** | B01_H | Extent of existing priority habitat managed to maintain / improve its condition | Core | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | **12** |
| | B02_H | Extent of areas managed to restore/create habitat | Core | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | **12** |
| | B03_H | Proportion of SSSIs in favourable or recovering condition | Optional | | | | | ■ | | | | ■ | | | | **2** |
| | B04_H | Total extent of priority habitat | Core | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | **12** |
| **Species** | B05_S | Extent of habitat managed to secure species-specific needs | Optional | ■ | | | ■ | ■ | | ■ | | | | ■ | | **5** |
| | B06_S | Status of widespread species | Optional | | ■ | | | ■ | ■ | | | | | | | **3** |
| | B07_S | Status of focal species | Optional | ■ | | ■ | | ■ | | ■ | ■ | ■ | ■ | ■ | ■ | **9** |
| **Invasive species** | B08_S | Control of invasive non-native species | Optional | | ■ | | | | | | | | | | | **1** |
| **Habitat connectivity** | B09_C | Optional indicator of habitat connectivity | Optional | ■ | | ■ | ■ | ■ | | ■ | ■ | ■ | | ■ | | **8** |
| | B10_C | Comparative indicator of habitat connectivity | Core | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | **12** |
| **Ecosystem Services** | | | | | | | | | | | | | | | | |
| **Cultural services** | ES01_C | Measure of extent of land managed to enhance landscape character | Optional | | | | | | | | ■ | | | ■ | ■ | **3** |
| | ES02_C | Length of accessible PROW and permissive paths created and/or improved | Optional | | ■ | ■ | | ■ | ■ | ■ | | | | | | **5** |
| | ES03_C | Condition of historic environment features | Optional | | | | | | | | | | | | | **0** |
| | ES04_C | Access to natural greenspace and/or woodland | Optional | ■ | | | ■ | | | | | ■ | ■ | | | **4** |
| **Supporting services** | ES05_S | Area of habitat supporting pollinators | Optional | ■ | | | | | | | | | | | | **1** |
| **Regulating services** | ES06_R | Contribution to water quality | Optional | ■ | ■ | ■ | ■ | | | | | ■ | ■ | ■ | ■ | **8** |
| | ES07_R | Contribution to carbon storage & sequestration | Optional | | ■ | ■ | | ■ | | ■ | ■ | | | | | **5** |
| **Provisioning services** | ES08_P | Area of more-sustainable agricultural production | Optional | | ■ | ■ | ■ | ■ | ■ | ■ | | ■ | | ■ | ■ | **9** |
| | ES09_P | Percentage of woodland in active management | Optional | ■ | ■ | ■ | | ■ | | | ■ | | ■ | ■ | | **7** |

| Theme and sub-theme | Indicator code | Indicator title | Status of indicator | Birmingham & Black Country | Dark Peak | Dearne Valley | Greater Thames Marshes | Humberhead Levels | Marlborough Downs | Meres & Mosses of the Marches | Morecambe Bay | Nene Valley | Northern Devon | South Downs Way Ahead | Wild Purbeck | No. Selected |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Social and Economic** | | | | | | | | | | | | | | | | |
| **Social impacts & well-being** | S&E01_S | Attitudes of local community to the natural environment and environmental behaviours | Optional | ■ | ■ | ■ | ■ | ■ | | | | ■ | | | | **6** |
| | S&E02_S | No. of educational visits | Optional | | | ■ | | ■ | | ■ | ■ | | ■ | | | **5** |
| | S&E03_S | No. and social mix of visitors to NIA sites | Optional | | ■ | | | ■ | | | | | | | | **2** |
| | S&E04_S | No. and social mix of people involved in NIA activities and events | Optional | | | | ■ | ■ | | ■ | | | | | | **3** |
| | S&E05_S | Level of outdoor recreation by NIA residents | Optional | ■ | | ■ | ■ | | | | | | | | | **3** |
| | S&E06_S | No. of volunteer hours on NIA activities | Core | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | **12** |
| **Economic values & impacts** | S&E07_E | Estimated value of visitor expenditure to local economy | Optional | | | | | | | | | | | | | **0** |
| | S&E08_E | No. of people employed in NIA activities | Optional | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | ■ | | ■ | **9** |
| **Partnership working** | | | | | | | | | | | | | | | | |
| **Mobilisation of resources** | PW01_R | Project income and expenditure | Core | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | **12** |
| | PW02_R | Financial value of help-in-kind | Core | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | **12** |
| **Efficient & effective delivery** | PW03_E | Fulfilment of identified skills needs | Optional | | | | | | | | | | | | | **0** |
| | PW04_E | Attitudes of local community to NIA | Optional | | ■ | ■ | ■ | ■ | | | | | | ■ | | **5** |
| | PW05_E | Assessment of partnership working | Optional | ■ | | ■ | | ■ | ■ | ■ | ■ | ■ | ■ | | ■ | **9** |
| **Leadership & influence** | PW06_L | Audience reach | Optional | | | | ■ | ■ | | | | ■ | ■ | | | **4** |
| | PW07_L | Level of awareness of NIA in local community | Optional | | ■ | ■ | | ■ | ■ | ■ | ■ | | | ■ | | **7** |
| | PW08_L | No. of enquiries | Optional | ■ | | | | | | | | | | | ■ | **2** |
| **Number selected** (not including locally developed indicators) | | | | 18 | 19 | 21 | 18 | 25 | 13 | 17 | 16 | 16 | 15 | 16 | 14 | **207** |
| **Number of locally developed indicators (see Table A2)** | | | | 2 | 0 | 6 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | **11** |
| **Total number of indicators** | | | | 20 | 19 | 27 | 18 | 25 | 14 | 17 | 16 | 17 | 15 | 17 | 14 | **218** |

**Table A2: Local indicators developed by NIA partnerships**

| Theme and sub-theme | Local indicator title | NIAs that have developed local indicators |
|---|---|---|
| **Biodiversity** | | |
| **Habitat** | Area of non-priority habitat created and managed as a result of NIA activity | Dearne Valley |
| **Habitat connectivity** | Measure of river habitat connectivity | Dearne Valley |
| **Ecosystem Services** | | |
| **Supporting services** | Measure of percentage of Local Planning Authority LDF documents, that have been prioritised by the NIA partnership, that reference the NIA and include policies that aim to deliver NIA objectives that are adopted by the council | Dearne Valley |
| **Regulating services** | Areas of new habitat created for pollinators | Marlborough Downs |
| **Provisioning Services** | Woodland products | Birmingham and Black Country |
| **Social and Economic** | | |
| **Social impacts and wellbeing** | Number of educational activities in schools delivered by the DVGH NIA Outreach project and through the activity of partners of the DVGH NIA | Dearne Valley |
| | Number of volunteer hours on activities within the DVGH NIA that help meet the broader objectives of the NIA Business Plan | Dearne Valley |
| **Economic values & impacts** | Estimated value of ecosystem services in NIA (S&E09) | Birmingham and Black Country; Nene Valley; South Downs |
| **Partnership working** | | |
| **Mobilisation of resources** | Complementary funding secured in the area | Dearne Valley |

# Appendix 2: Data Sources and Methods of Analysis

Appendix 2 provides an overview of the main data sources which supported the evaluation, and summarises some of the key approaches and methods of analysis used as part of the evaluation.

It includes the following:

- Overview of data sources / data collection and methods of analysis used
- Approach used for the analysis of the NIA partnerships' self-assessment of progress against their objectives (presented in Appendix 3)
- The Logic Model for the evaluation
- Evaluation questions
- Counterfactual Method Summary
- Timescales for detectable outcomes from biodiversity and ecosystem services enhancements
- Summary of data sources and analysis used for the monitoring and evaluation indicators

## Overview of data sources / data collection and methods of analysis used

Table A3 presents the main data sources and methods of data collection used as part of the evaluation together with an overview of the data management and subsequent analysis used to interpret these data.

**Table A3: Overview of data sources and collection methods, data management and analysis methods used as part of the evaluation**

| Data source / collection methods | Data management and analysis |
|---|---|
| **Monitoring and evaluation framework indicator data as recorded by NIA partnerships in the online reporting tool** | • Data extracted from online tool for all indicators across all NIA partnerships in CSV[239] format using the report function<br>• Data collated and tidied into a searchable Excel file.<br>• Specific indicators or NIAs selected by using Excel sort / filters and data extracted to separate worksheets (e.g. by theme) where necessary.<br>• Basic data analysis performed e.g.: summing data across NIA partnerships; using pivot tables to examine specific types of feature; generating Excel graphs to illustrate change over time etc. |
| **National data and data from existing monitoring tools** | • In most cases data from national sources have been collated by Natural England (with support from other agencies in particular Forestry Commission, English Heritage and the Environment Agency) into Excel files presenting annual data for each NIA, initially as input to the NIA partnerships' monitoring.<br>• Natural England provided such data for the following:<br>  ○ SSSI unit condition assessment<br>  ○ Priority Habitats Inventory<br>  ○ Public Rights of Way<br>  ○ Environmental Stewardship Options<br>  ○ Scheduled Monuments: Scheduled Monuments at Risk<br>  ○ National Forest Inventory (NFI): Woodland in management Performance Indicator<br>  ○ Monitor of Engagement with the Natural Environment (MENE)<br>• Basic analysis performed to calculate e.g. change over time, share of a |

[239] CSV – Comma Separated Values format

| Data source / collection methods | Data management and analysis |
|---|---|
| | particular feature across all NIAs, comparison of NIA trends with national trends etc. |
| **NIA partnership progress reports as submitted to Natural England** | Progress reports were manually reviewed to identify:<br>• Examples of specific activities by NIA partners related to particular thematic objectives / outcomes (e.g. related to biodiversity, partnership working etc.).<br>• Evidence of NIA partnerships overcoming challenges relating to staffing; project delivery etc.<br>• Self-assessment of progress by all NIA partnerships against their own objectives (see further description following this table). |
| **NIA partnership's annual summaries of progress and achievements** | Annual summaries were manually reviewed to identify:<br>• Examples of specific activities by NIA partners related to particular thematic objectives / outcomes (e.g. related to biodiversity, partnership working etc.).<br>• Headline progress and achievements relating to specific M&E themes or NIA objectives.<br>NIA partnerships did not produce annual summaries in Year 3. |
| **NIA partnership financial reporting (claim forms) as submitted to Natural England** | • Natural England audited and collated all NIA partnership financial reporting into an Excel file.<br>• Basic analysis performed, including: comparison with reporting through the online reporting tool (e.g. of volunteering, income and expenditure, value of help in-kind); summing data across NIA partnerships; developing Excel graphs to illustrate change over time and compare features (e.g. sources of added value) etc. |
| **Interviews with NIA partnerships** | Three sets of interviews were undertaken focussing on: NIA research activities and innovation (December 2013 – January 2014); partnership working and social, economic and wellbeing benefits (April – May 2014); and the difference being an NIA has made (January – February 2015). The key steps for each set of interviews were:<br>• A set of semi-structured interview questions was prepared and agreed with the project steering group.<br>• Telephone interviews with NIA partnership staff were arranged in, interviewees were sent questions in advance and interviews completed as per agreed scheduling.<br>• Notes were recorded from interviews in Excel format to enable comparison of outcomes across NIA partnership responses to each question.<br>• Key messages were identified through manual analysis of specific question responses (e.g. importance of partnership working in project delivery, reflections on the difference being an NIA partnership has made). |
| **Case studies of projects / activities with social and economic wellbeing benefits** | • Case study template developed and annotated to guide NIA partnerships in its completion.<br>• Example case studies completed and shared with project steering group and interested NIA partnerships – leading to refinement of template.<br>• Case studies developed by NIA partnerships in discussion with the project team.<br>• Case studies reviewed to understand and illustrate NIA partnership contributions to social and economic wellbeing benefits.<br>• Short summary boxes developed for reporting purposes. |
| **Workshops** | • As part of the project, two annual workshops with NIA partnerships have been held (July 2013 and July 2014), with additional workshops convened to discuss revisions to the monitoring and evaluation framework and indicator protocols (February 2014) and to provide |

| Data source / collection methods | Data management and analysis |
|---|---|
| | training / feedback on the revised online reporting tool (April 2014).<br>• Written workshop records were developed following each workshop and circulated to all participants prior to finalisation.<br>• Workshop records have been used to inform ongoing project work (e.g. amendments to indicator protocols) and as direct input to the evaluation and reporting (e.g. NIA partnership reflections on key progress and achievements).<br>• A list of participants in the various workshops held during the project is included in Appendix4. |
| **Direct informal discussion with NIA partnerships** | • Phone and email exchanges on an ad-hoc / as needed basis with individual NIA monitoring and evaluation officers or project managers for example to clarify data aspects, or request additional information. |
| **Counterfactual work** | The Counterfactual work (Annex 1) included three separate but complementary research techniques, these were:<br>• Approach 1: Qualitative 'counterfactual scenario' based on: semi-structured telephone interviews with national stakeholders and NIAs' Partnership Chairs; online survey with NIA partners, and; analysis of NIA Funding Agreements.<br>• Approach 2: Trajectory analysis of environment stewardship data comparing trends in non-Entry Level Stewardship (ELS) option applications before the NIA initiative (2005 – 2011) with the data from the NIA initiative (2012 – 2014).<br>• Approach 3: Matched comparison of environment stewardship data in NIAs and non-NIAs and the rest of England. |

# The Logic Model for the NIA evaluation

A logic model is an approach frequently used in 'realist' or theory driven evaluations as well as in the development of policy. The UK Government's Magenta Book suggests that logic models are used.

A logic model demonstrate how an intervention is understood to contribute to possible or actual impacts. Within evaluation they are used provide a framework to understand the intervention and therefore understand what information is needed to monitor and evaluate it.

Logic models are simple structures showing what is expect to go into a policy, what activities will occur and the likely effects of these.

## Logic model developed for the NIA evaluation

| Inputs<br>**The resources (financial, time, people, skills etc) being invested in the NIA partnerships** | Activities<br>***The activities and processes being undertaken by the NIA partnerships to deliver their objectives, and wider policy objectives*** | Outputs<br>***The initial outputs achieved by the NIA partnerships through the realisation of planned activities*** | Outcomes<br>***The short and medium (1 – 3 yrs) term results of NIA partnership activities and outputs*** | Impacts<br>***The longer term (3+ yrs) results achieved through the delivery of durable outcomes by the NIA partnerships*** |
|---|---|---|---|---|
| •Defra funding<br>•Match funding from other organisations<br>•Funding attracted by the NIAs from various sources<br>•Contributions 'in kind', such as donating time and materials (added value)<br>•In-house and external skills and capacities<br>•Existing social capital, including closely knit communities ('bonding capital'), trusted organisations, strong networks<br>•Multiple NIA partners from different sectors | •Building partnerships and facilitating partnership working<br>•Developing a shared vision<br>•Developing funding agreement s<br>•Assessing local opportunities for restoring and connecting nature<br>•Progress reporting<br>•Setting up a M&E system, reporting using the online tool, developing new local indicators and protocols<br>•Developing capacity building programmes / community outreach<br>•Encouraging and facilitating volunteering<br>•Developing innovation (e.g. piloting biodiversity offsetting and payments for ecosystem services)<br>•Sharing of experience and expertise between and within the NIAs<br>•Sharing of data and experience | •Links between NIAs and other policy areas – Water Framework Directive, low-carbon economy and flood and coastal erosion risk management<br>•Improved access routes<br>•Land subject to improvement actions<br>•Species and/or habitats with improvement actions<br>•Undertaking ecological surveys<br>•Volunteering activities to deliver<br>•Educational visits<br>•Sites / areas improved for educational use<br>•Public dialogue embedded in decision making in their areas<br>•Agreed funding agreement<br>•Best practice events<br>•Knowledge exchange<br>•M&E reports and progress | •Improved conservation of soils, geo-diversity and valued landscapes<br>•Facilitating adaptation to climate change<br>•Enhanced ecosystem services, including carbon sequestration, provisioning services and water management<br>•Existing wildlife sites improved (e.g. favourable / recovering) condition<br>•Survey results<br>•Improved areas of non-designated habitats<br>•Priority habitat expanded or restored<br>•Increases in habitat connectivity<br>•Reduction in habitat vulnerability<br>•Improved control of invasive species<br>•Community and civil society involvement in NIA<br>•Increased levels of public awareness and engagement in natural environment / related actions<br>•Improvements to community wellbeing<br>•Local economic benefits<br>•Shared learning and dissemination of expertise within and beyond the NIAs<br>•Well supported and functioning partnership<br>•Use of non-public resources<br>•Funding secured from outside public sector and from innovative sources<br>•Understanding of the impacts and effectiveness of the NIAs' work | •Increase in stock and flows of ecosystem services<br>•Economic value of natural environment recognised and commonly used in land-use and planning decisions<br>•Fully restored and established habitats and species<br>•Environment enhancement facilitated economic growth and/or provision of an uplift in economic value<br>•Increased access to the natural environment by all social groups and improved wellbeing<br>•Effective, durable partnership (beyond pilot period) delivering ongoing management and stewardship<br>•Sustainable financial basis for partnership working and continued landscape scale intervention<br>•A sense of optimism<br>•Innovative approaches to landscape scale conservation<br>•Long term monitoring data |

Key:
Ecosystem services
Biodiversity
Social and economic benefits
Partnership working
Cross-theme

3

# Evaluation questions

## Overall evaluation and lessons learnt questions

| | Sub-questions |
|---|---|
| **Overall Findings of the Evaluation:** *An overview of the inputs, activities, outputs, outcomes and, where evidence is available, impacts that the NIAs have had over the three year grant funded period, and the extent to which the overall aims of the NIA initiative have been realised.* | 1. What resources did the NIAs receive?<br>2. What activities have been undertaken by the NIA partnerships?<br>3. What have been the benefits of the NIAs' activities?<br>4. Have NIA partnerships realised the overall aims of the NIA initiative?<br>5. What difference have the NIA partnerships made? |

| Questions | Sub-questions |
|---|---|
| **Lessons learnt:** *At the end of the grant funded period, what have we learnt about partnership-led delivery of landscape scale conservation, and its monitoring and evaluation?* | 1. What has worked well and why?<br>2. What has been challenging and why?<br>3. What are the lessons for complex environmental evaluations? |

## Inputs and processes evaluation questions

| Questions | Sub-questions |
|---|---|
| **What is the nature and scale of inputs to the NIAs?** | 1. What human resources have the NIAs had at their disposal?<br>2. How much financial added-value have NIAs been able to generate above the initial NIA grant aid, and from what sources; and how have additional resources been mobilised?<br>3. How have the NIA partnership's made use of their resources and what does their expenditure related to? |
| **How are partnerships, management and planning supporting NIA implementation?** | 4. How are the NIA partnerships structured and governed?<br>5. How is partnership working supporting implementation within the NIAs?<br>6. What management and planning processes are the NIA partnerships using?<br>7. To what extent are the NIA partnerships planning for the future, and what resources have been secured?<br>8. What influence do the NIA partnerships have within NIAs and beyond? |
| **To what extent is monitoring and evaluation supporting the NIA programme?** | No sub-questions |
| **How has learning, research and innovation helped support the NIA programme?** | 9. How are the NIA partnerships sharing information and knowledge?<br>10. To what extent is information and knowledge sharing supporting the NIA partnerships in achieving their objectives?<br>11. What contribution are the NIA partnerships making to wider research and innovation? |
| **How has support from Natural England, Defra and other agencies supported the NIA programme?** | 12. What support have the NIA partnerships been receiving from Natural England, Defra and other agencies?<br>13. How has this support contributed to the NIA partnerships? |

## Thematic evaluation questions

### Biodiversity

| Questions<br>To what extent have NIAs contributed to… | Sub-questions |
|---|---|
| **Improved, restored or created habitats?** | 1. To what extent have NIA partnerships contributed to increasing the area of priority habitat through new habitat creation or restoration of relict habitat? |
| | 2. To what extent have NIA partnerships contributed to maintaining or improving the condition of the existing priority habitat resource (including designated wildlife sites)? |
| **Improved species status?** | 3. To what extent have NIA partnerships contributed to improvement in the status of species and improved habitats to support species specific needs? |
| | 4. To what extent have NIA partnerships contributed to the control of invasive or non-native species? |
| **Improved connectivity?** | 5. To what extent have NIA partnerships contributed to ecological connectivity and reducing habitat vulnerability to future change? |

### Ecosystem services

| Questions<br>To what extent have NIAs contributed to… | Sub-questions |
|---|---|
| **Improved cultural services?** | 1. To what extent have NIA partnerships contributed to increasing the extent of land managed to maintain and / or enhance landscape character? |
| | 2. To what extent have the NIA partnerships contributed to improving the length or accessibility of public rights of way (PROW) and permissive paths and improved access to natural greenspace and / or woodland? |
| **Improved supporting services?** | 3. To what extent have the NIA partnerships contributed to improving habitat for pollinators? |
| **Improved regulating services?** | 4. To what extent have the NIA partnerships contributed to water management? |
| | 5. To what extent have the NIA partnerships contributed to increase in carbon sequestration? |
| **Improved provisioning services?** | 6. To what extent have NIA partnerships contributed to sustainable agricultural production? |
| | 7. To what extent have NIA partnerships contributed to increasing the area of woodland under active management? |

### Social and economic wellbeing

| Questions<br>To what extent have NIAs… | Sub-questions |
|---|---|
| **Contributed to the physical and mental health of local people?** | 1. To what extent have the NIA partnerships helped improve people's health and physical fitness?<br>2. To what extent have the NIA partnerships helped improve people's mental health? |
| **Contributed to education and learning?** | 3. To what extent have the NIA partnerships engaged people in and influenced education and learning? |
| **Contributed to symbolic, spiritual and aesthetic benefits?** | 4. To what extent have the NIA partnerships enhanced symbolic, spiritual and aesthetic benefits? |
| **Contributed to social development and connections?** | 5. To what extent have the NIA partnerships helped engage people from diverse social backgrounds in the natural environment?<br>6. To what extent have the NIA partnerships led to enhanced networks, social connections and community identity? |
| **Contributed to the local economy?** | 7. To what extent have the NIA partnerships generated economic benefits, e.g. through: recreation and tourism activities, regeneration, increased land/property values, increased ecosystem services and natural capital?<br>8. To what extent have the NIA partnerships supported particular sectors and economic activities? |

# Counterfactual Method Summary

The Counterfactual work (see Annex 1) sought to support the Year 3 reporting by testing a set of research approaches for evaluating the NIA counterfactual, i.e. what would have happened anyway.

This work has been based around three separate but complementary research methods which were developed alongside a logic model for the NIAs. The logic model set out a series of inputs, processes, outputs and outcomes. These elements were based on what Defra and Natural England hoped the NIAs would achieve. Seven 'theories of change' – i.e. hypothesis for how the NIAs functioned – were identified from this logic model. Approaches 1, 2 and 3 were designed to explore whether these theories of change had occurred and to test the validity of the logic model. The results of this work would provide evidence for the Year 3 report. The three methods were designed to complement each other so that evidence from one research strand / stakeholder group could be compared to the others. This triangulation has allowed for a more robust understanding of the difference the NIAs have made.

Approaches 2 and 3 were recognised as experimental. The results from this work have some value but as the work has developed the limitations inherent in the data have become clear.

## Approach 1 – Narrative approach

Approach 1 built on interviews the project team had previously held with the NIA Project Officers by identifying three groups of NIA stakeholders: NIA partners, NIA Partnership Chairs and stakeholders from relevant national organisations. Survey and interview questions explored the difference the NIAs had made compared to what would have happened anyway.

The three data sources / research methods were:

1. **Online survey of NIA partners.** The survey considered the partners' views on the process, outputs and outcomes of their NIA. The survey was structured around the logic model and the four themes used in the monitoring and evaluation reporting. The survey provided feedback on the theories of change developed as part of the logic model. The survey was voluntary and 122 NIA partners provided responses across all NIAs. This represented a response rate of 46%. The survey results were analysed using non-parametric statistics (Kruskal-Wallis) to understand whether there was variation in stakeholders' response to a specific question. The results show that for most questions there was no significant variation in NIA, NIA type or stakeholder type. Where there is not the case it is stated.
2. **Semi-structured interviews with the 12 NIA Partnership Chairs**. As with the survey questions were structured around the logic model and the four themes used in the monitoring and evaluation reporting. Interviews were designed to build on the results of the Project Officer interviews.
3. **Semi-structure interviews with seven national level stakeholders**. National stakeholders were identified through discussions with the monitoring and evaluation project Steering Group. These interviews explored how, if at all, the NIAs differed from other landscape scale initiatives (in terms of input, processes and outputs) and the broader effects of the NIA programme.

## Approach 2 – Temporal trajectory analysis

The objective of this approach was to test the feasibility of undertaking a before and after trajectory analysis of agri-environment data within the NIAs.

Natural England provided Environmental Stewardship data nationally (from 2006-2014) and across the NIAs (2012-2014). The aim was to illustrate the trends prior to the NIA partnerships and during the three year NIA grant funding period (2012 – 2015). The initial hypothesis was that NIAs would have increased the uptake of HLS (an increase in the total number of options and holdings) within their areas and that this increase would be above the rate pre-2012.

The data set was cut so that data for the NIAs was isolated. This data set was then analysed in a spreadsheet format to show the number of options taken up with NIA areas, the number of holdings

with options and the median number of options per holding and how these varied over time. Data were presented for each NIA and aggregate NIAs.

### Approach 3 – Spatial paired comparisons

The original data were managed so that in addition to the 'NIA' data used in Approach 2 an 'England expect for NIA' data set was produced. The NIA and an 'England expect for NIA' data were then analysed in a spreadsheet format to compare the number of options taken up with NIA areas, the number of holdings with options and the median number of options per holding. These results were then compared to the results for the NIAs undertaken in Approach 2.

The second element of Approach 3 compared uptake between the NIAs and with two different landscape characterisation datasets. These were National Character Areas[240] (NCAs) and Agricultural Landscape Types (ALTs).

These compactor areas were considered appropriate as the emphasis of the NIAs was on actions contributing to the whole landscape, rather than actions focused on the specific features. Therefore the comparison is best made between NIAs and equivalent landscape / agricultural areas.

Furthermore these classifications are used in the targeting of HLS. It was also used within an earlier review of the effects of environmental stewardship on landscape character and quality (Cole *et al.*, 2013) although these have been aggregated further (to six classes) within other studies (Boatman, *et al*., 2010).

The data were presented in a spreadsheet and the results of each NIA were compared with their respective NCA / ALTs. This was graphed (Appendix 9 of the Counterfactual report) and a Mann-Whitney U test undertaken to see if the results from individual NIAs were statistically significant.

[240] Natural England (2015) Natural Character Areas: http://publications.naturalengland.org.uk/category/587130

# Timescales for detectable outcomes from biodiversity and ecosystem services enhancements

For the purposes of this short literature review 'enhancements' have been taken to encompass habitat (not just priority habitats) and ecosystem creation, restoration and enhancement works. The literature review was based on documents produced by Defra for the biodiversity offsetting pilot[241] and internet searches on keywords and phrases including: timescale for habitat creation and ecological services restoration timescales. While some reviewed papers indicated timescales (in years) for development of habitats and ecosystems others were less specific. Most papers that specified timescales referred to the time taken to achieve ecosystems of comparable quality to historic sites. Knowledge of historical ecosystems provide a basis for identifying restoration targets. The figure shows the feasibility and timescales of restoring different ecosystem types (TEEB, 2009) and has been reproduced in the Biodiversity Offsetting Pilots Technical Paper (Defra, 2012b).

### Feasibility and timescales of restoring European ecosystems to a resilient, self-sustaining state

| Ecosystem type | Time-scale | Notes |
|---|---|---|
| Temporary pools | 1-5 years | Even when rehabilitated, may never support all pre-existing organisms. |
| Eutrophic ponds | 1-5 years | Rehabilitation possible provided adequate water supply. Readily colonised by water beetles and dragonflies but fauna restricted to those with limited specialisations. |
| Mudflats | 1-10 years | Restoration dependent upon position in tidal frame and sediment supply. Ecosystem services: flood regulation, sedimentation. |
| Eutrophic grasslands | 1-20 years | Dependent upon availability of propagules. Ecosystem services: carbon sequestration, erosion regulation and grazing for domestic livestock and other animals. |
| Reedbeds | 10-100 years | Will readily develop under appropriate hydrological conditions. Ecosystem services: stabilisation of sedimentation, hydrological processes. |
| Saltmarshes | 10-100 years | Dependent upon availability of propagules, position in tidal frame and sediment supply. Ecosystem services: coastal protection, flood control. |
| Oligotrophic grasslands | 20-100 years + | Dependent upon availability of propagules and limitation of nutrient input. Ecosystem services: carbon sequestration, erosion regulation. |
| Chalk grasslands | 50-100 years + | Dependent upon availability of propagules and limitation of nutrient input. Ecosystem services: carbon sequestration, erosion regulation. |
| Yellow dunes | 50-100 years + | Dependent upon sediment supply and availability of propagules. More likely to be restored than re-created. Main ecosystem service: coastal protection. |
| Heathlands | 50-100 years + | Dependent upon nutrient loading, soil structure and availability of propagules. No certainty that vertebrate and invertebrate assemblages will arrive without assistance. More likely to be restored than re-created. Main ecosystem services: carbon sequestration, recreation. |
| Grey dunes and dune slacks | 100-500 years | Potentially restorable, but in long time frames and depending on intensity of disturbance Main ecosystem service: coastal protection, water purification. |
| Ancient woodlands | 500 – 2000 years | No certainty of success if ecosystem function is sought – dependent upon soil chemistry and mycology plus availability of propagules. Restoration is possibility for plant assemblages and ecosystem services (water regulation, carbon sequestration, erosion control) but questionable for rarer invertebrates. |
| Blanket/Raised bogs | 1,000 – 5,000 years | Probably impossible to restore quickly but will gradually reform themselves over millennia if given the chance. Main ecosystem service: carbon sequestration. |
| Limestone pavements | 10,000 years | Impossible to restore quickly but will reform over many millennia if a glaciation occurs. |

Source: Defra (2012) Biodiversity Offsetting Pilots Technical Paper: the metric for the biodiversity offsetting pilot in England (extracted from TEEB 2009).

## Biodiversity and ecosystem services enhancements at the landscape scale

Delivery of structural landscape features (such as hedgerows) and many ecosystem services (such as improved water quality and erosion control) require spatial targeting at the landscape and farm / field scale (BTO, 2005; LUC & GHK Consulting, 2008; Diebel et al., 2008; Moreno-Mateos & Comin, 2010; and Cole et al., 2013). These aspects along with the time taken for detectable results from

[241] Biodiversity offsetting is an approach to delivering conservation activities designed to give biodiversity benefits to compensate for losses (due to development) in a measurable way. The biodiversity offsetting pilot, which ran from April 2012 to March 2014) tested the approach in six pilot areas.

biodiversity and ecosystem creation, restoration and enhancement works need to be been taken into account in the NIA evaluation and the development of the logic model and theory of change.

### Examples of literature on the timescales for habitat and ecosystem creation and restoration

| Habitat / ecosystem creation / restoration | Target | Timescale | Evidence | Reference |
|---|---|---|---|---|
| **Ponds, saltmarshes and reedbeds** | To create habitat of conservation quality | 1-2 years | Some newly created habitats have been colonised relatively quickly and by species of conservation value. | Morris *et al.*, 2006 |
| **Creation of intertidal habitats** | To support assemblages of waterbirds | At least 5 years | Intertidal habitats created to support assemblages of waterbirds can take at least five years to determine whether the restored site is of conservation value. | Atkinson *et al.*, 2001 |
| **Habitat creation on arable land** | Not specified | Not stated | Habitats have been established easily on arable land (through agri-environment schemes (AES)) with predictable outcomes (based on the literature), especially when seeded, although species composition tended to be dominated by species of arable and disturbed habitats. | Critchley *et al.,* 2004 |
| **Creation of neutral and calcareous grasslands** | To create habitat of conservation quality | >100 years | Creation of floristically rich grasslands (neutral and calcareous) on former arable land may take more than 100 years to develop. | Morris *et al.*, 2006 |
| **Restoration of species rich ancient calcareous grasslands** | To create habitats of similar conservation value to historic sites. | Decades to centuries | The succession of plant communities from disturbed land to species-rich ancient calcareous grassland communities took from decades to centuries to stabilise. The course of the succession was found to depend on site conditions and the availability of adjacent colonisation sources. | Gibson & Brown, 1991 |
| **Restoration of neutral grasslands** | To create habitats of similar conservation value to historic sites. | >100 years | While young restored grasslands can be rich in species and include indicators of unimproved grassland, the full range of (MG5c) species continues to develop for well over a century. | Gibson, 1998 |
| **Restoration of calcareous grasslands** | To restore calcareous grassland to resemble ancient grassland communities | > 60 years | A comparison of 40 restoration sites with 40 paired reference sites, showed that there was little overlap between restored and ancient grassland communities even after 60 years. A high phosphorus level in the soil was found to be a constraining factor on restoration. Proximity to good quality grassland had a positive effect on naturally regenerated sites. | Fagan *et al.*, 2008 |
| **Restoration of species-rich lowland grassland** | To create species-rich grassland of conservation value | Not specified | The restoration of botanically species-rich grassland of conservation value on previously intensively managed agricultural land was found to be technically feasible within a relatively short time frame. However, the development of invertebrate assemblages appeared to be a slower process. | Walker *et al.*, 2003 |
| **Creation of heathland on arable land** | To create habitat of conservation quality | Not specified | The success of heathland creation appears to be influenced by factors such as soil pH and the presence of species of disturbed land. The study concluded that valuable lowland heathland may be difficult to create from arable land. | Morris *et al.*, 2006 |
| **Heathland restoration** | Not specified | Not specified | The use of palaeoecological evidence (e.g. via pollen taxa, macrofossil and sediment records) can provide a perspective on ecological processes operating, the habitat and species presence and their response to climate and human-induced disturbances and the changes to ecological networks. | Groves *et al.*, 2012 |
| **Ancient** | | Not | Woodland creation can also result in a rich assemblage of species (plants and animals), although the long life-cycle of | Morris *et* |

| Habitat / ecosystem creation / restoration | Target | Timescale | Evidence | Reference |
|---|---|---|---|---|
| **woodland** | | possible | trees (50 to 500 years) and the slow development of woodland soils, along with the centuries of management that have shaped the distinctive features of ancient woods, means that it is not possible to re-create woodlands that resemble ancient woods. | *al.*, 2006 |
| **Maintenance of Ancient and Ornamental Woodlands** | To develop a flexible management regime for Ancient and Ornamental Woodlands | Not specified | Pollen sequences have shown that the species composition of the New Forest has changed over the past 600 years, reflecting the response to natural and human-induced disturbances. Climate change and continued human activity on the future trajectory of the New Forest woodlands leads to the need for a flexible approach to management of the habitat. | Grant and Edwards, 2008 |
| **Restoration of ecosystems in general** | Increasing biodiversity and ecosystem services | <5 to 300 years | An analysis of 89 studies from across the globe found that the timescales for restoration of degraded ecosystems in relation to increasing biodiversity and ecosystem services ranged from less than 5 to 300 years. However, restoration did not necessarily achieve the quality of biodiversity and ecosystem services of intact ecosystems. The results also showed that biodiversity and ecosystem service restoration were positively correlated and therefore that restoration of biodiversity should support increased provision of ecosystem services. | Rey Benayas *et al.*, 2009 |
| **General ecosystem recovery** | To identify landscape scale ecosystem trends | Not specified | Palaeoevidence sources can help to describe change and variation within the landscape and at local levels and link human activities with ecosystem trends. | Shaw and Whyte, in press |
| **General ecosystem recovery** | Recovery of ecosystems from a major perturbation to the pre-perturbation state | 10 to 50 years | Peer-reviewed studies of the recovery of ecosystems (from across the world) following cessation of a major perturbation found that most ecosystems recovered on timescales of 10 to 50 years. In general, aquatic ecosystems recovered more quickly compared to terrestrial ecosystems; this was thought to reflect the shorter turnover times for the longest living species and nutrient pools in aquatic systems. | Jones & Schmitz, 2009 |
| **General ecological restoration** | To restore resilient self-sustaining ecosystems | Variable | The timescales for ecological restoration (recovery of resilient, self-sustaining ecosystems) varies widely. Full ecological restoration, and therefore the full ecosystem service benefits from restoration, takes a long time. However, partial recovery with consequent ecosystem service benefits can occur quite rapidly. | TEEB, 2009 |

### Examples of literature on the knowledge of historical ecosystems as a basis for restoration targets

| Ecological restoration | Target | Timescale | Evidence | Reference |
|---|---|---|---|---|
| **General ecological restoration** | To restore ecosystems to the state before disruption | Not specified | Knowledge of historical ecosystems provides a basis for identifying restoration targets. Ecosystems have been altered to varying extents by human activity and climate change and many historical ecosystem types are too remote in time to provide meaningful restoration targets. Despite inevitable environmental change it is helpful to use past ecological states as reference points for restoration. The paper suggests that instead of looking to natural states of ecosystems as targets for restoration, the emphasis should be on ecosystem function, goods and services. | Jackson & Hobbs, 2011 |
| **General ecological** | To restore | Not | Due to the implications of climate change in relation to ecological restoration, the paper suggests that a balance is | Harris *et* |

| Ecological restoration | Target | Timescale | Evidence | Reference |
|---|---|---|---|---|
| **restoration** | ecosystems | specified | required between rebuilding past ecosystems and attempting to develop resilient ecosystems for the future. | *al*., 2006 |
| **General ecological restoration** | To take an 'open-ended' approach | Not specified | A suggested approach for defining restoration outcomes is to take an 'open-ended' approach, particularly in situations where no reference system exists for defining restoration outcomes (such as Wicken Fen National Nature Reserve) or where restoration is planned on a large spatial scale. In such cases the goal for restoration could be framed in terms of promoting natural processes, mobile landscape mosaics and improved ecosystem services, as well as the actions needed to address the long-term outcomes. | Hughes *et al*., 2011 |

# Summary of data sources and analysis used for the monitoring and evaluation indicators

Table A4 provides an overview of the main data sources and methods of analysis used by NIA partnership in relation to each of the monitoring and evaluation framework indicators.

**Table A4: Data sources and methods of analysis used by the indicator protocols**

| Theme and sub-theme | Indicator code | Indicator title | Indicator category | Data sources | | | | | | Methods of analysis | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | NIA data through BARS | National data through BARS | Direct NIA monitoring | MENE | Survey (visitor etc.) | Local & /or national datasets | GIS analysis | BARS reports | NE supplied | Collation of values (e.g. in Excel) | Qualitative assessments |
| **Biodiversity** | | | | | | | | | | | | | | |
| **Habitat** | B01_H | Extent of existing priority habitat managed to maintain / improve its condition | Core | ✓ | ✓ | ✓ | | | | | ✓ | | | |
| | B02_H | Extent of areas managed to restore/create habitat | Core | ✓ | ✓ | ✓ | | | | | ✓ | | | |
| | B03_H | Proportion of SSSIs in favourable or recovering condition | Optional | | | | | | ✓ | | | ✓ | | |
| | B04_H | Total extent of priority habitat | Core | | | | | | ✓ | | | ✓ | | |
| **Species** | B05_S | Extent of habitat managed to secure species-specific needs | Optional | ✓ | ✓ | ✓ | | | ✓ | | ✓ | | | |
| | B06_S | Status of widespread species | Optional | | | ✓ | | | ✓ | | | | ✓ | |
| | B07_S | Status of focal species | Optional | | | ✓ | | | ✓ | | | | ✓ | |
| **Invasive species** | B08_S | Control of invasive non-native species | Optional | ✓ | | ✓ | | | | | ✓ | | | |
| **Habitat connectivity** | B09_C | Optional indicator of habitat connectivity | Optional | ✓ | ✓ | ✓ | | | ✓ | ✓ | ✓ | | ✓ | |
| | B10_C | Comparative indicator of habitat connectivity | Core | ✓ | ✓ | ✓ | | | | | ✓ | | | |
| **Ecosystem Services** | | | | | | | | | | | | | | |
| **Cultural services** | ES01_C | Measure of extent of land managed to enhance landscape character | Optional | | | ✓ | | | ✓ | ✓ | | | | |
| | ES02_C | Length of accessible PROW and permissive paths created and/or improved | Optional | | | ✓ | | | ✓ | ✓ | | ✓ | ✓ | |
| | ES03_C | Condition of historic environment features | Optional | | | | | | ✓ | | | ✓ | ✓ | |
| | ES04_C | Access to natural greenspace and/or woodland | Optional | | | | | | ✓ | ✓ | | | | |
| **Supporting services** | ES05_S | Area of habitat supporting pollinators | Optional | | | | | | ✓ | ✓ | | | | |
| **Regulating services** | ES06_R | Contribution to water quality | Optional | | | | | | ✓ | | ✓ | | ✓ | |
| | ES07_R | Contribution to carbon storage & sequestration | Optional | | | | | | ✓ | | ✓ | | ✓ | |
| **Provisioning services** | ES08_P | Area of more-sustainable agricultural production | Optional | | | ✓ | | | ✓ | | | ✓ | ✓ | |

| Theme and sub-theme | Indicator code | Indicator title | Indicator category | Data sources | | | | | | Methods of analysis | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | NIA data through BARS | National data through BARS | Direct NIA monitoring | MENE | Survey (visitor etc.) | Local & /or national datasets | GIS analysis | BARS reports | NE supplied | Collation of values (e.g. in Excel) | Qualitative assessments |
| | ES09_P | Percentage of woodland in active management | Optional | | | ✓ | | | ✓ | | | ✓ | ✓ | |
| **Social and Economic** | | | | | | | | | | | | | | |
| **Social impacts & well-being** | S&E01_S | Attitudes of local community to the natural environment and environmental behaviours | Optional | | | | ✓ | | | | | ✓ | ✓ | |
| | S&E02_S | Number of educational visits | Optional | | | ✓ | | | | | | | ✓ | |
| | S&E03_S | Number and social mix of visitors to NIA sites | Optional | | | ✓ | | ✓ | | | | | ✓ | |
| | S&E04_S | Number and social mix of people involved in NIA activities and events | Optional | | | ✓ | | ✓ | | | | | ✓ | |
| | S&E05_S | Level of outdoor recreation by NIA residents | Optional | | | | ✓ | | | | | ✓ | ✓ | |
| | S&E06_S | Number of volunteer hours on NIA activities | Core | | | ✓ | | | | | | | ✓ | |
| **Economic values & impacts** | S&E07_E | Estimated value of visitor expenditure to local economy | Optional | | | ✓ | ✓ | ✓ | | | | ✓ | ✓ | |
| | S&E08_E | Number of people employed in NIA activities | Optional | | | ✓ | | | | | | | ✓ | |
| **Partnership working** | | | | | | | | | | | | | | |
| **Mobilisation of resources** | PW01_R | Project income and expenditure | Core | | | ✓ | | | | | | | ✓ | |
| | PW02_R | Financial value of help-in-kind | Core | | | ✓ | | | | | | | ✓ | |
| **Efficient & effective delivery** | PW04_E | Fulfilment of identified skills needs | Optional | | | ✓ | | | | | | | ✓ | |
| | PW05_E | Attitudes of local community to NIA | Optional | | | | | ✓ | | | | | ✓ | ✓ |
| | PW06_E | Assessment of partnership working | Optional | | | ✓ | | | | | | | | ✓ |
| **Leadership & influence** | PW07_L | Audience reach | Optional | | | ✓ | | | | | | | ✓ | |
| | PW08_L | Level of awareness of NIA in local community | Optional | | | | | ✓ | | | | | ✓ | |
| | PW09_L | Number of enquiries | Optional | | | ✓ | | | | | | | ✓ | |

# Appendix 3: Progress Against Individual NIA Objectives

Appendix 3 presents an overview assessment of the NIAs overall progress against their funding agreement objectives, and an assessment relating to objectives related to: inputs and processes; biodiversity; ecosystem services; and social and economic wellbeing.

## Approach used for the analysis of the NIA partnerships' self-assessment of progress against their objectives

A qualitative assessment was completed, based on the self-assessment made by each NIA partnership of progress against their objectives in the fourth quarter Progress Reports to Natural England (final quarter of Year 3). These self-assessments of progress are based on the level of progress made towards project outcomes under each funding agreement objective and the extent to which this progress is in-line with original milestones.

A traffic light scoring system has been used for the analysis. Presence of a 'No' recorded in response to the question 'Is progress in line with your original milestones?' for any objective (or project within an objective) within the fourth quarter Progress Report resulted in the objective being assigned to the amber or red category (unless the reason for the 'No' response was because progress was *in advance of* milestones).

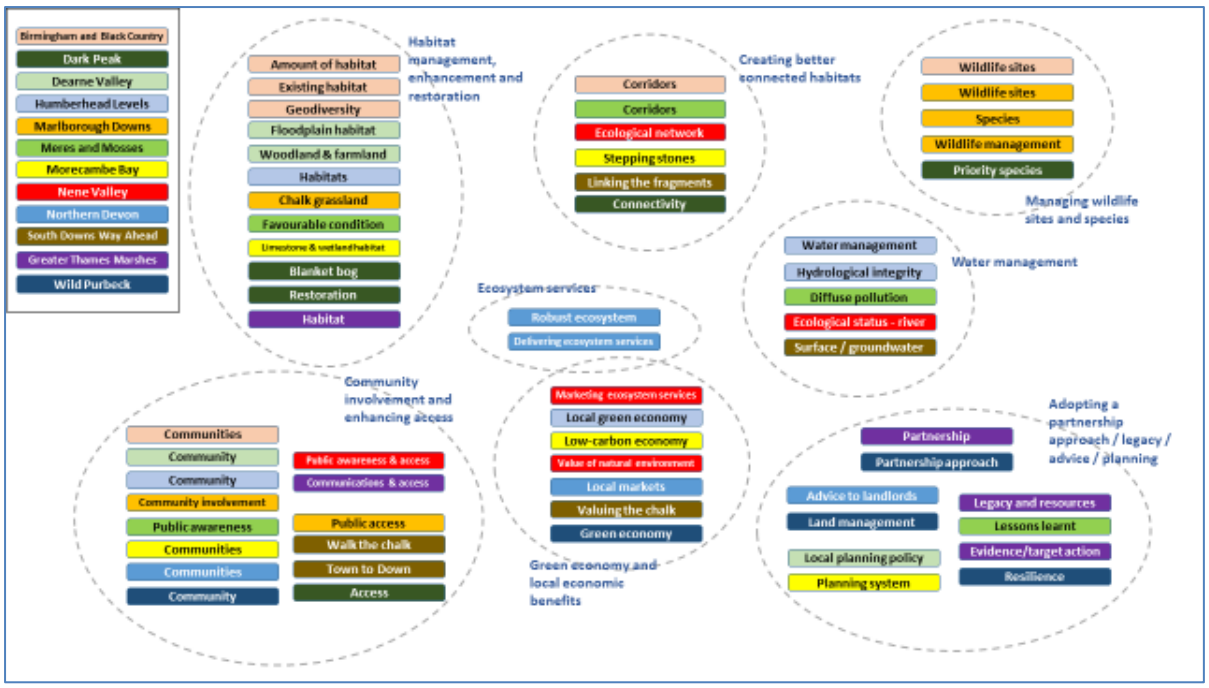
Projects were assigned to green, amber or red according to the response made to the requirement to describe the level of project progress made towards this outcome since it started (None/Little/Satisfactory/Good). Projects were assigned to a category according to the key below.

| Score | Level of project progress made towards the outcome | Progress in line with original milestones? |
|---|---|---|
| **Green** | None (if none planned)/Little/Satisfactory/Good | 'Yes' (or 'No' where progress in advance of milestones) |
| **Amber** | Satisfactory/Good | No |
| **Red** | None/Little/Some | No |

Figure A1 presents the individual NIAs' objectives organised into broad categories (note that this uses abbreviated titles for the individual objectives – for the full versions see the individual NIAs' documentation[242]). This shows that whilst the 12 NIAs focused on specific aspects most relevant to them, many of the NIA partnerships had common objectives under core categories such as: habitat management, enhancement and restoration; creating better connected habitats; and community involvement and enhancing access. Other categories of objectives tended to be the focus of a few NIA partnerships each, such as promoting the green economy / local economic benefits and water management.

[242] https://www.gov.uk/government/publications/nature-improvement-areas-improved-ecological-networks/nature-improvement-areas-locations-and-progress

**Figure A1: Categorisation of individual NIA partnership objectives**



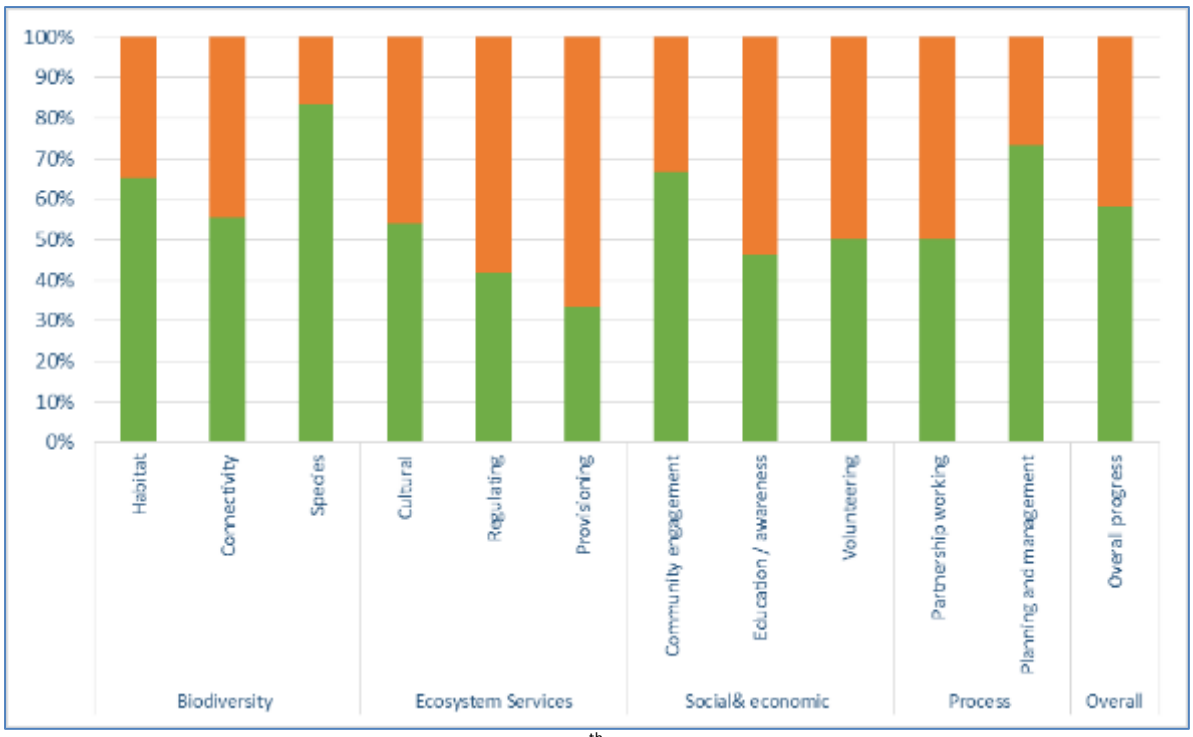

## Overview of NIA self-assessment of progress against objectives

All NIA partnerships completed a self-assessment of progress against their own objectives, which were agreed with Natural England in their government grant funding agreements. These assessments of progress were completed at the end of each year and reported in NIA partnership 4th quarter progress reports. A summary of these self-assessments for each M&E theme, and for partnership working and management and planning (inputs and processes) are reported later in this appendix.

At the end of the government grant funded period (April 2012 – March 2015), the NIA partnerships progress was assessed as 'good' (progress on or ahead of schedule) or 'satisfactory' (not in line with original milestones, but where satisfactory progress had been made) against all funding agreement objectives. Figure A2 shows that across all themes the NIA partnerships reported 'good' progress for 58% of objectives, and 'satisfactory' progress for the remaining 42%. No NIA partnership reported that they had made 'little or no progress' against any of their objectives.

It should be noted that objectives reported as not being achieved generally relate to individual elements of projects that contribute to the achievement of an overall objective. The NIA partnerships' objectives and associated milestones were set in their funding agreements (in March 2012), and were an estimate of their delivery programmes at the time but unforeseen practical issues may have emerged after that time which have affected delivery (e.g. the unusually wet and stormy winter in 2013 / 2014 delaying some habitat activities). NIA partnerships recorded in their Progress Reports the reasons why delivery was not in line with original objectives, for example: delays in acquisition of land, leading to revised milestones being agreed; revisions to local masterplan, leading to some reallocation of NIA project priorities; permissions not being granted, leading to revision to original plans; transferral of project resources to other activities (with approval of Natural England); delays in monitoring outcomes, meaning not able to report progress. For example weather delays to survey activities; modification to scope of planned works due to regulatory concerns and planning constraints; decision to re-schedule development and release of a sense of place toolkit to link with other activities.

**Figure A2: Self-assessment of progress against NIA partnership objectives**

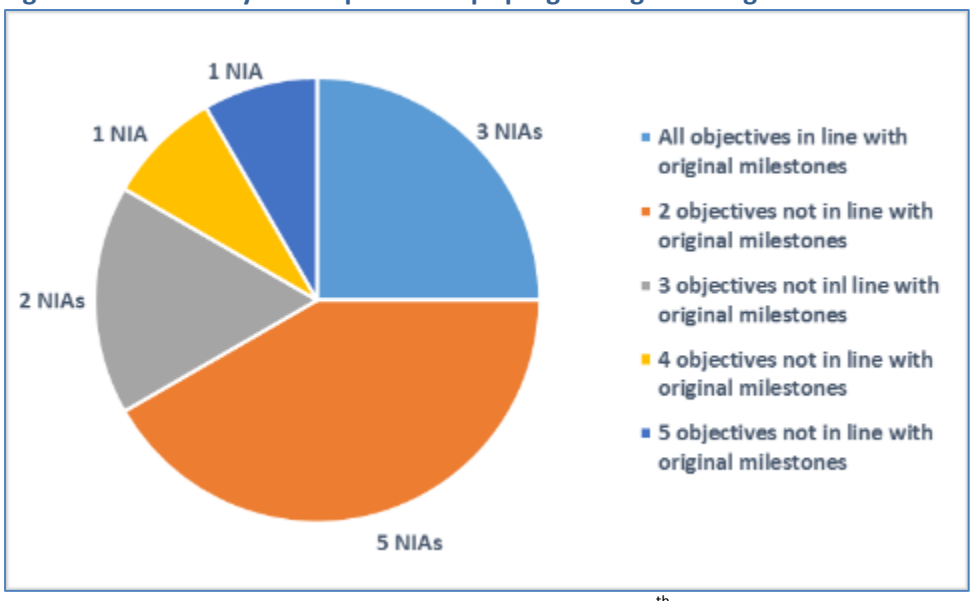



**Source:** NIA self-assessment of progress as reported in the 4th quarterly Progress Reports
**Note:** The method used to generate this figure is explained in Appendix 2
**Key to shading: Green** - on or ahead of schedule; and **Amber** - not in line with original schedule, but where satisfactory or good progress has been made. No objectives were categorised as having little or no progress made and behind schedule.

Figure A2 also shows how self-reported progress varies across the themes. Objectives related to habitat, species, community engagement and planning and management show the highest levels reported as being 'on or ahead of schedule', with over 80% of objectives related to species outcomes in this category. This assessment illustrates the challenges NIA partnerships have faced in some areas of implementation, such as habitat connectivity, ecosystem services and social outcomes. However, all objectives across all themes were assessed by NIA partnerships as having satisfactory progress. Some divergence with original milestones in delivering outcomes such as connectivity or landscape scale approaches to ecosystem services may be more indicative of the difficulty in setting specific and time-bound objectives in innovative areas of work than a lack of delivery by NIA partnerships.

Figure A3 is based on the thematic assessments presented in this appendix and shows that: three NIA partnerships have reported that delivery against all of their funding agreement objectives is in line with original milestones at the end the three grant funded years. The remaining nine NIA partnerships reported that between two and five of their objectives were behind original milestones, but that satisfactory progress had been made.

**Figure A3: Summary of NIA partnerships progress against original milestones**




**Source:** NIA self-assessment of progress as reported in the Year 3 4th quarter Progress Reports
**Notes:** no NIAs had only one objective not in line with original milestones. Not in line with original milestones does not mean that an objective was not met, but that scale and/or timing of objectives were revised from funding agreement

## Progress against NIA partnership objectives relevant to inputs and processes

NIA partnerships' self-assessment of progress against funding agreement objectives related to inputs and processes indicate that partnership working, planning and management generally were delivered as planned: 65% of relevant objectives were assessed as being on, or ahead of schedule; the remaining 35% were not in line with original milestones but there was 'satisfactory or good' progress.

The individual NIA partnerships have various objectives linked to inputs and processes. These can be categorised as: *partnership working;* or *planning and management*. The focus of the objectives under partnership working is on the collaboration with partners and the focus of the objectives under planning and management is on the delivery of best practise in wildlife management through strategic planning, research and management.

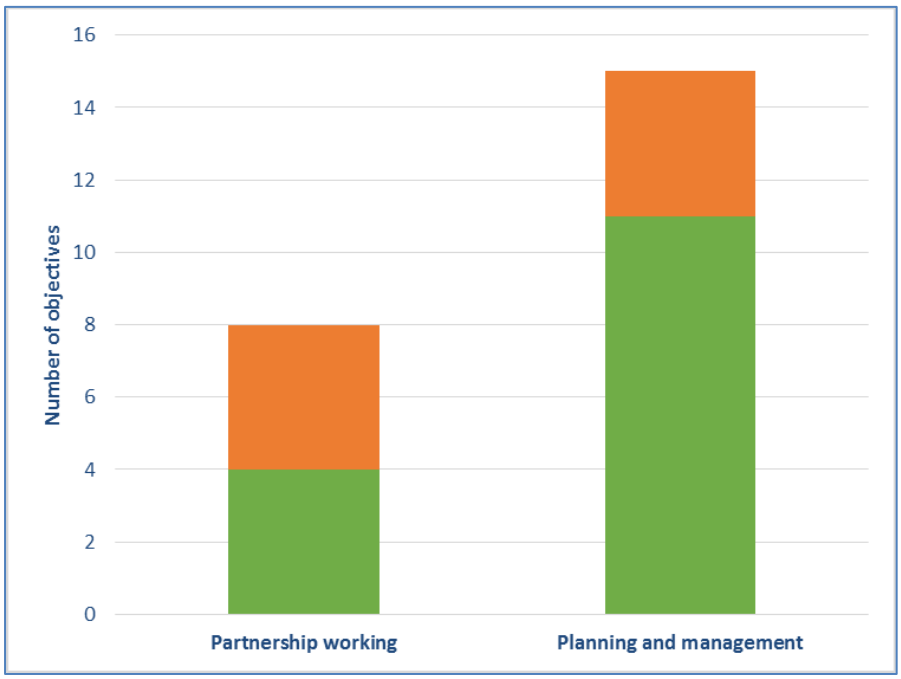
Analysis of progress against these objectives is presented in Figure A4, which shows that at the end of the grant funded period, the NIA partnerships have made good progress under their objectives relevant to inputs and processes: 15 of the 23 objectives (65%) were assessed to be on or ahead of target and eight were assessed to be not in line with original milestones, but where satisfactory or good progress had been made. There were no relevant objectives categorised as having little or no progress.

Where progress at the end of the grant funding period was not in-line with original milestones, NIA partnerships recorded the reasons for this, for example:

- Delays in acquisition of land, leading to revised milestones being agreed. Progress reported to be in-line with revised milestones.
- Revisions to local masterplan, leading to some reallocation of NIA project priorities.
- Struggled to find a suitable grazier to participate, leading to one less management plan being developed than planned.

All NIA partnerships have established visions to 2020, and although specific plans related to their funding agreement objectives are not known, ongoing activity is expected in all NIAs (see sub-section 5.3.5).

**Figure A4: Self-assessment of progress – NIA partnership objectives relevant to inputs and processes**




**Source:** NIA self-assessment of progress as reported in the 4th quarterly Progress Reports
**Note:** The method used to generate this figure is explained in Appendix 2
**Key to shading: Green** - on or ahead of schedule; and **Amber** - not in line with original schedule, but where satisfactory or good progress has been made. None were categorised as having little or no progress made and behind schedule.

## Progress against NIA partnership objectives relevant to biodiversity

NIA partnerships' self-assessment of progress against funding agreement objectives related to biodiversity outcomes, indicate that delivery was generally as planned: 66% of objectives were assessed as being on, or ahead of, schedule; and 34% were assessed as not in line with original milestones but 'satisfactory or good progress' had been made.

More NIA partnership objectives were considered relevant to biodiversity outcomes than any other theme. Of the total number of NIA partnership objectives (119), 32% (38 objectives) concerned biodiversity. In analysing the NIA partnership objectives, these have been grouped as being primarily focused on: *habitats; species;* or *connectivity*. In practice, most objectives will be delivering nature improvement in an integrated way.

An analysis of progress against these objectives is presented in Figure A5 which shows that at the end of the grant funded period, the NIA partnerships made good progress in delivering against objectives relevant to biodiversity outcomes and impacts: 66% of all biodiversity objectives were assessed as green (on, or ahead of, target) with 65% of habitat objectives and 83% of species objectives assessed as green. On the other hand for habitat connectivity objectives a greater number were assessed as amber (not in line with original milestones, but where satisfactory or good progress had been made) than green (56%:44% respectively). An amber score does not mean that an objective was not met, but that delivery was not in line with original milestones. No biodiversity related objectives were categorised as having little or no progress (red).

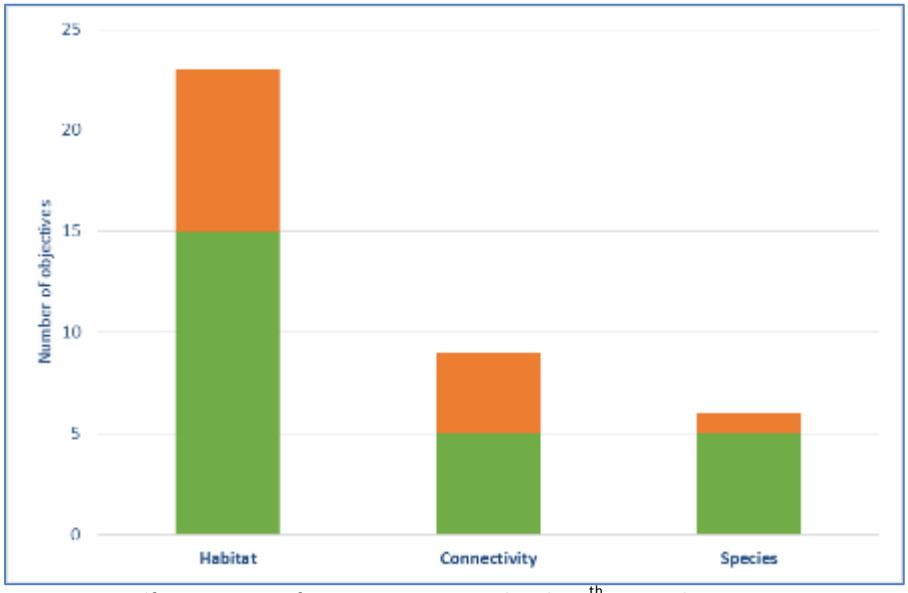
Where progress at the end of the grant funding was not in line with original milestones, NIA partnerships recorded the reasons for this, including

- Permissions not being granted, leading to revision to original plans.
- Transferral of project resources to other activities (with approval of Natural England).
- Delays in monitoring outcomes, meaning not able to report progress. For example weather delays to survey activities.

- Delays in acquisition of land, leading to revised milestones being agreed. Progress reported to be in-line with revised milestones.
- Modification to scope of planned works due to regulatory concerns and planning constraints.

All NIA partnerships have established visions to 2020, and although specific plans related to their funding agreement objectives are not known, ongoing activity is expected in all NIAs (see sub-section 5.3.5 on how NIA partnerships are planning for the future).

**Figure A5: Self-assessment of progress– NIA partnership objectives relevant to biodiversity**




**Source:** NIA self-assessment of progress as reported in the 4th quarterly Progress Reports
**Note:** The method used to generate this figure is explained in Appendix 2
**Key to shading: Green** - on or ahead of schedule; and **Amber** - not in line with original schedule but where satisfactory or good progress has been made. None were categorised as having little or no progress made and behind schedule.

## Progress against NIA partnership objectives relevant to ecosystem services

The NIA partnerships' self-assessment of progress against funding agreement objectives related to ecosystem services delivery indicated that 45% of relevant objectives were assessed as being on, or ahead of target; the remaining 55% were not in line with the original milestones but nevertheless there had been 'satisfactory or good' progress.

All of the NIA partnerships had objectives that covered ecosystem services (31 objectives in total; 13 relevant to cultural services, 12 to regulating services, six to provisioning services and none to supporting services). The various objectives included restoration and enhancement of the different ecosystem services, better provision of public access to services, as well as the assessment and demonstration of the benefits of ecosystem services.

NIA partnerships' objectives did not always specify outcomes for ecosystem services, for example, Birmingham and Black Country reported on improvement of conditions for pollinators (a supporting service) although this was not specified in their funding agreement objectives.

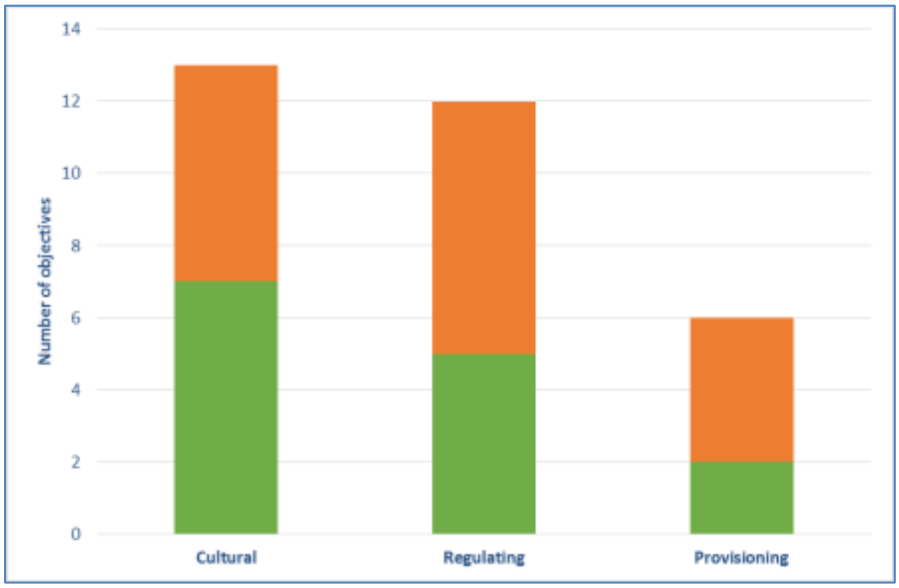
Analysis of progress against these objectives is presented in Figure A6, which shows progress under ecosystem services objectives at the end of the grant funded period: 14 of the 31 (45%) ecosystem services objectives were assessed as being on, or ahead of, target (green); and 17 (55%) were assessed as not in line with original milestones but where satisfactory or good progress had been made (amber). An amber score does not mean that an objective was not met, but that delivery was not in line with original milestones. No relevant objectives were categorised as having little or no progress (red).

Where progress at the end of the grant funding was not in line with original milestones, NIA partnerships recorded the reasons for this, including

- Delays in acquisition of land, leading to revised milestones being agreed. Progress reported to be in-line with revised milestones.
- Loss of a lead partner, leading to revision to original delivery schedule.
- Unavoidable delays in completion of research related ecosystem marketing potential.
- Original plans assumed availability of woodland grant. That this was no available meant revision to plans.
- Reliance on volunteers meant planning of activities sometimes difficult, e.g. due to variable numbers.
- Delays in monitoring outcomes, meaning not able to report progress. For example weather delays to survey activities.

All NIA partnerships have established visions to 2020, and although specific plans related to their funding agreement objectives are not known, ongoing activity is expected in all NIAs (see sub-section 5.3.5 on how NIA partnerships are planning for the future).

**Figure A6: Self-assessment of progress – NIA partnership objectives relevant to ecosystem services**




**Source:** NIA self-assessment of progress as reported in the 4th quarterly Progress Reports
**Note:** The method used to generate this figure is explained in Appendix 2
**Key to shading: Green** - on or ahead of schedule; **Amber** - not in line with original schedule, but where satisfactory or good progress has been made; and **Red** - Little or no progress made and behind schedule.

## Progress against NIA partnership objectives relevant to social and economic wellbeing

The NIA partnerships' self-assessment of progress against funding agreement objectives relevant to social and economic wellbeing indicates that delivery was generally as planned, with: 56% of relevant objectives were assessed as being on, or ahead of schedule; the remaining 44% were not in line with original milestones but where 'satisfactory or good' progress had been made.

Although most NIA partnership objectives could be considered to contribute to social, economic and wellbeing outcomes, 27 objectives were considered specifically relevant. In analysing the NIA partnership objectives, these have been grouped as being primarily focussed on: *community engagement, education/awareness;* and *volunteering*. In practice most objectives will be delivering multiple benefits.

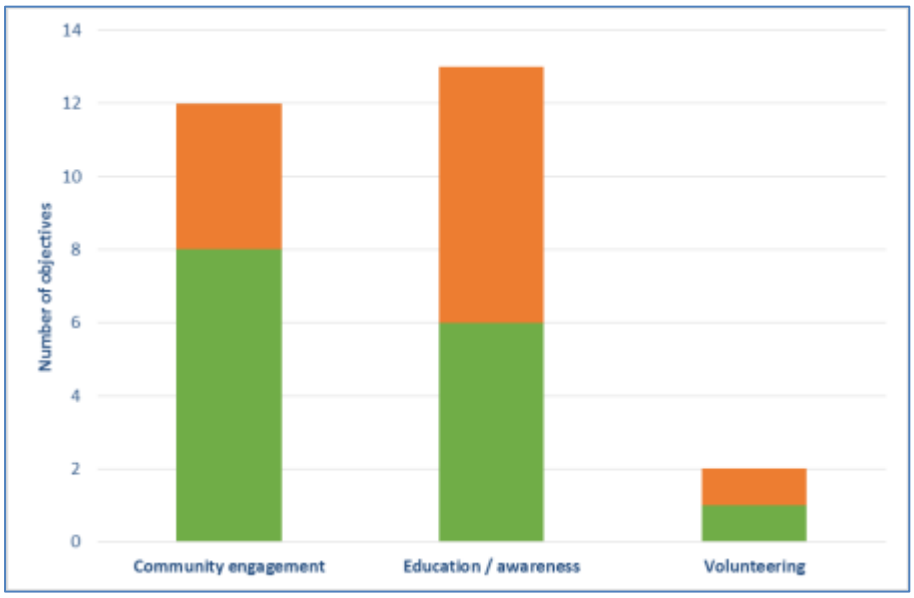
An analysis of progress against these objectives is presented in Figure A7, which shows that at the end of the grant funded period, 15 of the 27 objectives (56%) were assessed as being on or ahead of target (green); and 12 (44%) were assessed as not meeting original milestones but where satisfactory or good progress had been made (amber). An amber score does not mean that an objective was not met, but that delivery was not in line with original milestones. No social or economic related objectives were categorised as having little or no progress (red).

Where progress at the end of the grant funding was not in line with original milestones, NIA partnerships recorded the reasons for this, including

- The loss of a lead partner, resulting in loss of capacity in the project team.
- Delays and complications in securing land leases.
- Decision to re-schedule development and release of a sense of place toolkit to link with other activities.

All NIA partnerships have established visions to 2020, and although specific plans related to their funding agreement objectives are not known, ongoing activity is expected in all NIAs (see sub-section 5.3.5 on how NIA partnerships are planning for the future).

**Figure A7: Self-assessment of progress – NIA partnership objectives relevant to social and economic wellbeing benefits**




**Source:** NIA self-assessment of progress as reported in the 4th quarterly Progress Reports
**Note:** The method used to generate this figure is explained in Appendix 2
**Key to shading: Green** - on or ahead of schedule; **Amber** - not in line with original schedule, but where satisfactory or good progress has been made; and **Red –** Little or no progress made and behind schedule.

# Appendix 4: Participants in Monitoring and Evaluation Workshops and Meetings

Appendix 4 presents a list of the participants in the various monitoring and evaluation workshops, meeting and other engagement activities undertaken during the course of the Phase 2 project. This includes the representatives from the NIA partnerships and other organisations.

| Name | NIA representing / Organisation |
|---|---|
| **NIAs** | |
| Andy Slater | Birmingham and Black Country |
| Sara Carvalho | Birmingham and Black Country |
| Alan Cutler | Birmingham and Black Country |
| Steve Meays | Dearne Valley Green Heart |
| Annice Fuller | Dearne Valley Green Heart |
| Jeff Lunn | Dearne Valley Green Heart |
| Dean Philpot | Greater Thames Marshes |
| Jo Sampson | Greater Thames Marshes |
| Pat Fitzsimons | Greater Thames Marshes |
| Carys Hutton | Humberhead Levels |
| Debbie Fieldsend | Humberhead Levels |
| Tim Graham | Humberhead Levels |
| Andy Morritt | Humberhead Levels |
| Cathy Williams | Marlborough Downs |
| Jemma Batten | Marlborough Downs |
| Simon Smart | Marlborough Downs |
| Robert Cooper | Marlborough Downs |
| Amanda Wright | Meres and Mosses of the Marches |
| Elaine Gibson | Meres and Mosses of the Marches |
| Emma Hankinson | Meres and Mosses of the Marches |
| Luke Neal | Meres and Mosses of the Marches |
| Tom Hayek | Meres and Mosses of the Marches |
| Mike Shurmer | Meres and Mosses of the Marches |
| Bart Donato | Morecambe Bay Limestone & Wetlands |
| Lucy Barron | Morecambe Bay Limestone & Wetlands |
| Heather Ball | Nene Valley |
| Margaret Grindle | Nene Valley |
| Oliver Burke | Nene Valley |
| Andrew Bell | Northern Devon |
| Lisa Schneidau | Northern Devon |
| Mike Symes | Northern Devon |
| Tamsin Caruana | Northern Devon |
| Mike Moser | Northern Devon |
| Ayla Forbes | South Downs |
| Emily Brennan | South Downs |
| Ian McConnell | South Downs |
| Nigel James | South Downs |
| Nigel James | South Downs |
| Dave O'Hara | The Dark Peak |
| Jon Walker | The Dark Peak |
| Ross Frazer | The Dark Peak |
| Sarah Proctor | The Dark Peak |
| Alison Turnock | Wild Purbeck |
| Julie Turner | Wild Purbeck |
| Tom Monroe | Wild Purbeck |

| Name | NIA representing / Organisation |
|---|---|
| **Other organisations** | |
| Simon Maxwell | Defra |
| Helen Pontier | Defra |
| Andy Stott | Defra |
| Sarah Webster | Defra |
| James Vause | Defra |
| John Rodwell | Independent |
| Ulric Wilson | Joint Nature Conservation Committee |
| Rebecca Jackson-Pitt | Natural England |
| Brian McDonald | Natural England |
| Judith Milne | Natural England |
| Jo Keegan | Natural England |