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Included outside: Evidence synthesis for engaging under-represented groups in nature

Summary Report

First published September 2022

Natural England Commissioned Report NECR427

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NATURAL ENGLAND

Included outside: Evidence synthesis for engaging under-represented groups in nature

Clare Rishbeth, Sarah Neal, Morag French and Bridget Snaith

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Project details

Engagement with nature has been shown to have a range of health and wellbeing benefits. However, evidence from Natural England's Monitor of Engagement with the Natural Environment (MENE) survey – and its successor the People and Nature Survey – shows that that nature spaces in rural and urban environments are not accessed equally by all and that factors including age, ethnicity and socio-economic status seem to play a role in this picture. Natural England therefore commissioned this series of Evidence Briefings called 'Included Outside' to bring together, in user-friendly formats, existing evidence on barriers to engagement with nature, and lesson from interventions to overcome them for particular under-represented groups.

Each Briefing focuses on a different 'group' that is under-represented in nature and the outdoors (although it is important to note that these groups do overlap, and this is highlighted as well): older people, people from ethnic minority backgrounds, people living with disabilities and people living in low-income areas. The Briefings give an overview of the barriers and enablers for engaging in nature for each group as well as relevant case studies and resources.

The Summary Report looks at the similarities and differences between the barriers and enablers for each group, and explores issues of 'intersectionality' (the ways in which social identities and related inequalities are connected and cross-cutting). It also describes the methodology used for reviewing the evidence sources and highlights key learning for the development and evaluation of inclusive nature engagement.

The aim is for these Briefings to provide a resource for organisations and individuals working to broaden engagement in nature and the outdoors so that they can get a better understanding of what the evidence says about barriers and also build on what works.

Natural England commission a range of reports from external contractors to provide evidence and advice to assist us in delivering our duties. The views in this report are those of the authors and do not necessarily represent those of Natural England.

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Further information

This report can be downloaded from the Natural England Access to Evidence Catalogue. For information on Natural England publications contact the Natural England Enquiry Service on 0300 060 3900 or email enquiries@naturalengland.org.uk.

Executive summary

It is widely recognised that time spent in nature and outdoor spaces has individual benefits relating to physical and mental wellbeing [29,40]. This has been re-emphasised by the Covid-19 pandemic [16] (and also see Office for National Statistics 2021). There is also growing evidence that participation in nature spaces and the outdoors benefits people's wider senses of belonging and social connection. Given this, it is clearly important that everyone has access to nature and the chance to visit and spend time in different types of natural environment.

However, the evidence shows that nature spaces in rural and urban environments are not accessed equally by all and that for some social groups a range of barriers limit opportunities to engage and benefit from encounters with nature. Natural England's own data collection -- through its Monitor of Engagement through the Natural Environment (MENE), and more recently the People and Nature surveys -- has led the way in creating a baseline of evidence of the differential use of urban and rural green and blue space. This data shows that four social groups are particularly under-represented in nature spaces [31]:

- older people;
- people living in low-income areas;
- people from ethnic minority backgrounds;
- people living with disabilities.

Analysis of Natural England's MENE data contributes to what is now a wide, but disparate and dispersed, collection of academic studies, policy accounts, intervention reports and expert opinions, which examine the relationship between nature and social inclusion, and the various ways in which nature spaces may be accessed and used less by certain social groups. The key aim of this project, a desk-based review of existing research and publications, was to bring this evidence together into a set of four practitioner-focused evidence briefings and a summary report.

The specific objectives of the review that were agreed were:

1. To provide an overview of available evidence on the needs and experiences of the four under-represented groups in green (and blue) nature spaces in urban and rural environments
2. To provide accessible and inspirational material on existing interventions that act as 'enablers' for people from under-represented groups in accessing nature space interventions.
3. To conduct the review with regard to sensitivities and complexities regarding representation and voice relating to the four under-represented groups.

Framed by these objectives the four evidence briefings are focused on the barriers to inclusion in nature for each of the four groups mentioned above, as well as outlining and suggesting ways in which the evidence might guide interventions to address these

barriers. They include short case studies and examples of a range of interesting interventions that are helping to promote inclusive nature engagement in varied environments. They also point to some of the overlaps between these groups and the diversity within them.

This summary report draws together the evidence from across the briefings, illustrating how barriers to accessing and enjoying nature spaces overlap and are shared between the four under-represented social groups that each are the focus of one of the evidence briefings. It therefore draws attention to the importance of understanding ‘intersectionality’ in relation to promoting inclusive nature engagement. Intersectionality emphasises the ways in which social identities -- for example, ethnicity, gender, class, age, migration status, disability -- and related inequalities are connected and cross-cutting and can exacerbate each other.

In addition, the summary provides an overview of the methods used for the review, identifies some of the gaps in the evidence found, and briefly outlines what the findings suggest for developing and evaluating interventions that aim to promote inclusive nature engagement.

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Key findings

Overview of the evidence base

A review of the evidence base shows that there is an established body of work in interdisciplinary, academic and policy research that examines the ways in which ethnicity, class, age and disability impact engagements with nature. Government bodies such as Natural England and Public Health England are key to the production of large scale, quantitative data on nature space usage and patterns of engagement by different social groups. However:

- Individual pieces of academic and policy research tend to be focused on one particular social group in each case. There is limited but increasing recognition of the differences and diversity within the four social groups but there are fewer studies which focus on the cross-cutting barriers which are shared by more than one social group. There is still a knowledge gap in the evidence base in relation to addressing intersectional barriers.
- The evidence base is predominantly small scale and qualitative. There is a gap in relation to data generated by mixed research methods and data generated by quantitative research methods.
- Issues and interventions relating to i) people with limiting health conditions, people with hidden and less visible disabilities, and people living in low-income neighbourhoods and ii) to accessing and use of bluespace are less well represented in the evidence base.

Overview of structural factors which create barriers for different groups in accessing nature

Much of the existing evidence base examines how the key barriers to accessing, using and benefitting from quality nature spaces relate to structural factors. These barriers include: a lack of nearby public green and bluespace, lack of quality in nearby public green and bluespace, lack of transport and costs involved in accessing more distant green and bluespace. There is strong evidence that structural factors relating to social class and ethnicity are intersectional and multi-dimensional. This evidence highlights that:

- Those living in low-income urban areas are less likely to have access to greenspace and less likely to have access to high quality and well-resourced, safe greenspace [12,20,39].
- Since 2008, public greenspace has been vulnerable to cuts in public spending and resource allocation [16]. There is also some evidence of councils using public parks in urban spaces as a form of income generation, by renting them out for pay-to-enter festivals and events, which then affect access to urban park space [16, 27].

- This lack of quality urban nature space in low-income areas affects Black and ethnic minority groups directly because they are more likely to live in urban areas, as well as being over-represented in lower income categories [20,39].
- It also reinforces the disadvantages they face, since lower income groups tend to have poorer health as well as also having less access to the health and well-being properties of green and bluespace [21,25,30].

Overview of experiential barriers to accessing nature and natural environments

There are some studies that highlight the ways in which under-represented groups can have ambivalent experiences and perceptions of greenspace, both as places that feel unsafe and are to be avoided as well as places of leisure and enjoyment. Experience-based concerns identified in this research included the importance of:

- Concerns about personal security, safety and harm, including anxiety about anti-social behaviour, racism and hate crime [21,35,45].
- Practical concerns about lack of information, getting lost, what to do and whether there will be enough to do [22].
- Concerns about isolation and vulnerability, and negative associations or memories of nature space as spaces in which they or others have had negative experiences [34,35].

But the research also identified more positive greenspace associations and experiences, among under-represented groups including:

- High levels of habitual use of urban parks by people living in areas where there is quality greenspace provision [12].
- Strong senses of attachment, belonging and inter-generational use of urban parks in multi-ethnic areas [34,44] with some, albeit more fragile and uneven, use and enjoyment of rural and National Park greenspace [1,10].

Overview of cultural barriers to accessing nature and natural environments.

- A number of studies emphasise the role of confidence about belonging to, being in and ownership of nature spaces. These studies highlight the political and cultural importance of reinforcing senses of entitlement to be in nature spaces and a nature-relationship for those groups which are under-represented in nature spaces [19].
- There is evidence in some studies of representational barriers, cultural exclusions and disconnections in nature relationships, which means that Black and ethnic minority groups, migrants, disabled people, and working-class groups are much less visible in nature spaces and not routinely associated with or ‘placed in’ nature [19,43].

- A small body of work and think tank commentary highlight the ‘gentrification’ of nature spaces and the ways in which associations of nature with White, middle class leisure activities may generate senses of exclusion and anxieties about ‘not fitting in’, of ‘being stared at’ and of needing particular types of clothing, equipment and kit. There is more evidence of the ways in which nature spaces, particularly rural ones, have been exclusionary around race and cultural difference [15,33], but there is less evidence of research documenting inclusion or exclusion of working-class nature traditions and the in/visibility of older and of disabled people in nature spaces [18].

Overview of barriers relating to the planning, design and management of natural environments

- Issues of access and transport, costs, and/or lack of time and space in personal lives to engage in nature-related activities were the focus of several studies exploring the engagement of diverse groups in nature spaces [7,8,13]. Some research showed how the proximity of nature spaces to everyday life increased usage and that urban ‘walk through’ greenspaces which were used to get to other places tended to be better and more regularly used than ‘destination’ nature spaces [12,14,34]. These studies and policy interventions also tended to emphasise the importance of providing multiple ways in which nature spaces can be used - from outdoor gyms to playgrounds, picnic tables and sitting spaces - by different groups [18,23].
- A number of studies focus on the practical infrastructure barriers that affect levels of engagement with nature for under-represented social groups. These include a lack of access to information and knowledge about how to use nature spaces, worries about the availability of facilities such as toilets, cafes and information points, and the importance of signposted walks and sitting spaces [47].
- There was some commentary on the lack of partnership-building, voice and representation of under-represented groups in the local governance structures of nature spaces. For example, members of ‘friends of parks’ groups tend to have good representation of older, middle class and White British groups but an under-representation of those identifying as belonging to Black, ethnic minority, disabled and working-class groups [10,20].
- There are a smaller number of publicly available studies evaluating and/or monitoring policy interventions and activities developed to address barriers to nature use [10,38], which provide evidence of how effective targeted interventions can be. This is indicative of the ways in which nature and greenspace does have wider appeal and levels of greenspace use by under-represented groups can change. Similarly, one survey of urban greenspace showed not only how important and how valued such space is but also found that that if people are satisfied with the number and the quality of their local parks they tend to be satisfied with their neighbourhood and council [12].

- The initial stage of this project involved carrying out a scoping review of organisational websites, both of peer support and advocacy organisations for under-represented groups and of environmental sector organisations. This found that:
  1) Priority is often given to a health motivation for visiting natural environments. Although the 'health agenda' (for example, green prescribing) is generally helpful and commonly used to encourage contact with nature, there are a few cases where the messaging around this might arguably be perceived as a little 'top down', possibly even patronising or culturally excluding.
  2) There is a rise in peer-led organisations/NGOs/social enterprises supporting inclusion, often for specific groups. This is positive progress and these organisations are often led by committed and highly skilled individuals. Larger environment sector organisations are often keen to be identified and engage with these. However, most of the organisations involved tend to be small-scale and local, and commonly struggle with financial sustainability.
  3) There appeared to be few specific initiatives around poor health / limiting health conditions or meeting the access needs of people living in low-income areas.

Overview of 'what works'

While there was less of an evidence base relating to 'what works' in addressing barriers, there is an emerging body of more recent research with a focus on new forms of engagement, approaches and interactions. It is important to note that 'what works' can be interpreted in very different ways. Often, as exemplified by many of the case studies, there is a sense of 'good practice' being defined as a better quality experience for individuals, prioritising quality over quantity. This raises issues of how these activities work at scale. However, some more strategic approaches are about addressing local population needs and preferences (see case studies on Equality Impact Plans and on the proposed Wigan, Salford and Warrington National Nature Reserve), where the innovation involves a process of working beyond individual experience.

The literature related to what works includes the following:

- Studies and reports of **co-participatory** and **peer-led activities** show these to have been particularly effective in engaging under-represented groups in nature spaces. They reflect the principle that those taking part in an activity are best placed to design it [32,36].
- A small number of studies show nature organisations using social media and digital-based initiatives to provide information and interactive experiences and encourage connections with nature as well as interest and confidence in visiting and using nature spaces [4,37].
- While the Covid-19 experience dramatically reinforced the importance of local, accessible greenspace and generated a significant increase in the use of public greenspace in urban areas, the early studies which explore this increase in local

greenspace use have shown that the pandemic did not necessarily lead to higher levels of greenspace use by under-represented groups [24,40,41].

- There is some evidence of the importance of supportive infrastructure and inclusion strategies targeted at particular social groups to encourage and support nature space usage. Examples range from the facilitation of nature space use for those with lower levels of fitness, dementia walks and sensory therapeutic gardens [2,11] to changing representations in terms of the visible diversity of users of nature spaces and activities [10].
- There is evidence of some local councils and social service providers (such as housing trusts) collecting data on nature space use for which they have responsibility, and establishing greenspace strategies with the social inclusion and wellbeing potential of nature space as a key focus [16,17,26,40,46]. However, there is less available data on the effectiveness of these strategies.
- An emerging theme in some studies is the importance of re-thinking what nature spaces and nature experiences are so that pocket parks but also micro or home-based nature spaces (a street tree, window box, indoor plants) can work as 'stepping stones' to nature engagement [3,6,21].

Cross-cutting barriers to socially inclusive access to natural environments

The evidence base shows one or more or the following will negatively impact the level of representation of particular social groups within nature space:

- a lack of **access** to good quality walkable/nearby nature spaces and to nature spaces that can be reached (cheaply) by **public transport**;
- concerns about security and **personal safety** in under-resourced and under-maintained greenspaces;
- a lack of **partnership working** with organisations run by or with under-represented groups and a failure to explicitly **welcome** a diversity of users and a diversity of nature space uses;
- having no or only a limited **supportive infrastructure** (for example, information points, facilities, activities) which are targeted at building nature space confidence, encouraging the routine use of greenspace and developing emotional attachments to greenspace;
- having no or only limited **information about what facilities and resources** are in nature spaces such as accessible and affordable cafés, toilets, picnic spaces, children's play areas, sport and leisure activity spaces, garden spaces, quiet and social sitting spaces.

These are cross-cutting issues and they emerge as re-occurring themes in the evidence base as having exclusionary effects on specific social groups, but also thread through and across the experiences and needs of all of the four groups. Addressing these 'bigger picture' barriers is key to having positive intersectional outcomes in which nature equity is enhanced for all under-represented social groups.

Methodology

This research project was an entirely desk-based literature review and analysis process involving the following stages:

Stage 1

Scoping review of 24 organisational websites under 2 categories:

- **Addressing lived experiences.** Third sector campaign and support groups relating to the under-represented groups identified by Natural England. These groups did not have a primary focus on nature connection. We noted material directly produced for their own clients or campaigns, recording their own evaluation of problems, benefits and initiatives relating to natural environments. Example websites: Carers UK, Refugee Action.
- **A more inclusive outdoors.** Nature and outdoors organisations covering a range of types of open space and recreational activities to identify how these organisations currently identify barriers to specific groups, priorities and plans to address these. Example websites: Campaign for Protection of Rural England, Wildlife Trusts, Youth Hostel Association.

While this is 'second level' data in terms of robustness (academic rigour), we used this information to ground our literature review strategy in the publicly expressed priorities and interests of the specific groups that are the focus of the Evidence Briefings. It also served as an initial search for relevant case studies. Key findings from this scoping were used to develop our selection of user groups, different forms of nature space to focus on, and evidence search terms for secondary sources of evidence.

Stage 2

In this core stage of the research, we conducted a standardised, blended review of evidence, primarily focused on academic research, and government and third sector commissioned reviews. A search strategy was developed around the key objectives given in the Executive Summary and the scope of the evidence review. The search strategy focused on 'experiences of the natural environment for identified marginalised groups' and 'enablers' and 'barriers to engagement'.

Evaluation of scope

We were mindful of the primary output of the overall research project, which is to ensure that the information stated in the Evidence Briefings and the recommendations given within them were relevant to people working in a range of contexts in the UK environmental sector. The scoping criteria were as follows:

1. Prioritising UK-based research and practice, but allowing exceptions where we have compelling references to in-depth and innovative research or practice in other comparable national contexts;
2. Prioritising literature and policies published between 2010 and 2022 (given the UK Equality Act 2010), but including key foundational texts and reports from the previous 10 years when they still appear to have ongoing influence;
3. Requiring methodological transparency: any type of qualitative or quantitative study was eligible for inclusion, provided it reported on its methods and results;
4. Reading the publication would add or deepen knowledge of issues of inclusion and exclusion for someone working on these initiatives within the environmental sector.

Evaluation of rigour

First level sources were defined as: academic publications reporting research findings, or/and academic literature reviews and analysis. Evaluation of 'rigour' within these publications was assessed as follows:

- Academic publications that had been accepted through peer review in established academic journals.
- As a minimum, academic publications met nationally significant standards of originality, significance and rigour as set out in the 2021 UK Research Excellence Framework (REF).

Second level sources were defined as: strategy documents or formal reviews, reports on research which had not clearly gone through a formal peer review process but included highly relevant material, final reports and evaluations from practice, think pieces, and writers giving accounts of their lived experience of marginalisation and access issues. These were not given the same weight within our findings as the peer reviewed research but were integral to our analysis due to their high level of public facing suitability. A benchmark of 'rigour' within these publications was marked as follows:

- Published by gov.uk or large Non-Governmental Organisations [NGOs] (strategy documents).
- Written by academics or researchers within a policy context (non-formally peer reviewed research).
- Publicly-accessible systematic reports on funded projects linked to an established provider (evaluations).
- Published on a national scale public-facing edited website, typically large NGOs or professional bodies (think pieces).

As long as one of the above criteria was met, we then assessed the material in terms of how 'fit for purpose' it was in terms of focus (as outlined below), and included it in the Table of Evidence Sources that is published as a separate Annex, if it fulfilled this criteria too. Most of these sources are cited in at least one Evidence Briefing or the Summary.

Development of search terms

Search terms were derived through the following actions:

- Selecting terms directly from the Natural England brief.
- Drawing terms from Project Team's specialist knowledge outlined in our tender submission.
- Including terms from Natural England recommendations and areas of interest outlined in early meetings, with ongoing discussion and interactions during the initial stages of the project.
- Identifying gaps and evolving the terms through reading of papers and considering new and/or alternative key words and search terms within them.

As well as use of systemised searches (the primary database used was the Web of Science, but we also used Google Scholar and the Office of National Statistics), we used references and 'cited by' links within key papers which led us to other relevant work. The search terms used are cited in the Appendix.

Inclusion in the evidence base

From a long list of possible publications and materials, we discounted articles that on closer reading did not inform our priority areas of inclusion/exclusion or focused primarily on evaluation of health and well-being benefits of nature connection. We were guided by the desired publication outcomes to ensure that the evidence base as a whole represented an appropriate diversity of voices and positions, typologies of natural environment (green, blue, urban, rural), practices and uses, strategies and challenges, successes, forms of evidence, and interventions.

The final evidence base comprises a total of 166 evidence sources. These are listed in the Table of Evidence Sources that is published as a separate Annex, alongside this Summary Report and the Evidence Briefings.

Through an iterative search process (findings from stage 1, recommendations from Natural England staff, our own knowledge and projects mentioned in the publications) we collated a list of relevant case studies, of which we selected 12 to be highlighted as inspirational examples across the four Evidence Briefings.

Stage 3

Through a collaborative coding exercise of the evidence base, including the case studies, we identified the following themes which form the basis of each of the Evidence Briefings:

- intersectionality and internal diversity
- values and preferences
- barriers and limitations
- interventions to improve inclusivity

Note on terminology

Language used for self-identifiers is fluid, context dependent and there are differences of opinion within population groups regarding preferred terminology. From the initial review of peer-support and advocacy sector websites, terminology used to describe specific groups was noted. In general, the most commonly used terms were adopted within the Evidence Briefings, and where there were equally preferred options, we used terms given by government guidelines:

- Inclusive Communication guidance from GOV.UK
- Writing about Ethnicity advice from GOV.UK

When referring to specific findings or quotes from a publication, we used terms employed by the author.

Intersectionality and internal diversity

The four Evidence Briefings provide an in-depth, detailed focus on the different and distinct barriers that each of the four social groups identified as being under-represented in nature spaces currently face. In this section, we look across the information found on how class and socio-economic background, race and ethnicity, disability and age shape barriers to accessing, using and benefitting from nature spaces.

We note that there is less evidence that recognises and engages with the internal diversity within each of these four very broad social categories, although there are emerging signs of studies using this approach, including, for example, Ratna's study of urban walking and older, working class, Guajarati-British citizens [42].

There is robust evidence of the intersectional and cross-cutting issues that relate to social class and ethnicity. For example, low-income neighbourhoods have less greenspace and less high quality greenspace, and ethnic minority populations are over-represented in low-income neighbourhoods. However, the relationship between other identifiers, such as 'age and class' or 'ethnicity and disability', and the consequences of these for nature engagement have had less of a focus for investigation.

Much of the evidence on barriers is focused on group-specific barriers. There were several studies documenting socio-economic barriers, access and mobility barriers and 'representational' barriers to nature engagement. There were more studies relating to the experiences of Black and other ethnic minority and migrant groups. These highlight the ways in which racialised stereotypes and assumptions about urban-ness, a lack of nature relationships, and cultural exclusions from nature spaces - especially rural ones – impact on levels of nature engagement [10,36].

There are fewer studies on representational barriers relating to social class, disability and age although the broader issues of inequalities, belonging and fitting into socially divided nature spaces are clearly shared themes in the barriers to nature engagement research.

There are a number of studies which examine the particular and specific barriers relating to each social group for example:

- access, costs, time and social resources for **low-income users**;
- transport, safety and physical facilities for **older users**;
- representational barriers, racialised exclusion, safety and isolation for **ethnic minority groups and migrant users**;
- the dominance of focus on visual and mobility issues in nature space use and the need for non-patronising facilities and nuanced frameworks for participation [5] which can support the variety of requirements for users with **different and diverse forms of visible and less visible disabilities**.

While there are differences in the barriers particular groups encounter in their relationship to nature spaces, what is also apparent in the evidence base is the extent to which the barriers to nature are overlapping, cross-cutting and intersectional. The evidence shows that there are a range of shared barriers that affect and impact the equitability of the relationship of all four social groups with nature spaces. These barriers predominantly relate to the provision, availability, resourcing and management of nature spaces [20].

Strengths and weaknesses of the evidence base

A key strength of the existing evidence base is its sheer **range and diversity**.

With regard to academic research, the review is dominated by publications from social science disciplines (for example, geography, environmental science, sociology and psychology). This reflects the extent to which the research in this area is a social science based area, although we recognise that arts and humanities are also active in the nature and greenspace fields and that socially inclusive nature initiatives often involve creative based interventions.

For policy organisation reports, research came from different organisations and included those that were nature-and environment related, such as Friends of the Earth, National Parks and Wildlife Trusts, and public and government bodies such as Natural England, Public Health England and Defra. However, there were some from those that were not primarily nature related, such as local authorities, housing associations and health providers.

The high level of attention given to the importance of nature space, wellbeing and social inequalities is also reflected in the number of think pieces and influencer voices in the public sphere and mainstream media which **relate nature space inclusion to wider social justice and inclusion agendas.**

The extent and range of investigative work in the field of nature engagement and social inequalities is significant but also makes the collection, review and synthesis of research and evidence across the four under-represented social groups challenging.

Much of the available evidence is qualitative, which has real strengths in bringing out the everyday experience of people as they engage with nature. The transparency of the research methods used in the process of data collection in the publications on which we focused made it possible to draw informed conclusions.

While there were some mixed methods studies combining interviews with survey methods, the majority of the academic studies in the Table of Evidence Sources are small-scale and based on interviews most often with members of under-represented groups that focus on their experiences and perspectives of nature, and their use and engagement with nature spaces. The in-depth experiential and qualitative focus of the evidence means that it is rich, detailed and granular and provides an important emphasis on social location, voice and the value of voice [28]. This provides the scope for understanding the complex multi-dimensionality of the relationship between nature spaces and the four more marginalised social groups who were the focus of our study.

While some reports and accounts from organisational initiatives and policy interventions were quantitative these too drifted to being more qualitatively designed. This again is valuable as it provides compelling first-hand accounts of the priorities, issues, needs and demands related to being in and using nature spaces.

However, there is a relative absence of research that uses quantitative approaches and big data research design. Investigations at larger scale would increase the scope for identifying and understanding macro patterns of the types of nature spaces used, for what purposes, how and how frequently, by which groups, and with which benefits and outcomes. Government-based organisations such as Natural England and Public Health England (now UK Health Security Agency) and key campaign groups such as Friends of the Earth have been the key actors providing quantitative approaches, large scale reviews and big data. Again, the wider use of mixed and quantitative methods and design would provide different insights and scope for new studies.

Despite the breadth and depth of the evidence base there are some gaps and **unevenness in the variety and focus of the existing research and evidence** relating to the four specific groups considered in this review. We have stressed the importance of intersectional perspectives and recognising that people do not live their lives in singular social categories. People's lived experiences are not based on one social identity but are shaped by overlapping or intersecting identities. These overlaps may exacerbate social inequalities. Similarly, within each particular social category there will be diversity and difference in people's lived experiences, values and perspectives.

This is important to keep in mind when reviewing the distinctions and differences in the evidence between social categories. In terms of broad trends in the evidence base, we suggest that there are more studies and research on Black and ethnic minority groups and the representational barriers in their use of nature spaces, in particular the challenges of

accessing and using rural nature spaces. There is strong evidence documenting how low-income neighbourhoods, and Black and ethnic minority populations living in them, have less access to high quality greenspaces, but there is less evidence that seeks to build on that experience and how it relates to and fits with the wider experience of multi-ethnic low-income and working class groups.

There is a growing body of work exploring the nature space challenges and experiences of people living with disabilities, though less research on people living with 'hidden' or less visible disabilities and their use of nature space. Health and wellbeing framings of nature space usage means that there are some studies of particular life-limiting and chronic illness and nature space use and benefits. This health emphasis of nature space use also means there is an increasing amount of research relating to older people's access to nature space, and associated health and wellbeing benefits.

There is currently less of an evidence base that highlights barriers and challenges faced by LGBTQI+ groups and nature space access and use. We suggest that this is an area for future research.

There was also some unevenness in the coverage in relation to the **different types of nature spaces** that are available to access and use. There was a significantly larger number of studies focused on National Parks and urban parks. Woodlands and forestry nature spaces have also been the focus of some research [for example, 38]. While there is some research on coastal and blue nature space in relation to access and experiences of exclusion or user hesitancy [for example, 4,9 and Natural England's (2019) Living Coast study] investigations of use of coastal and blue nature areas remains small for all four under-represented social groups.

There are indications in the evidence base that the development of more recent micro-nature spaces such as pocket parks and doorstep nature spaces are important for nature engagement across the four groups and could be a productive focus of future research.

Developing understanding of nature spaces in ways that go beyond simple rural-urban binaries is also important. This not only reflects the geographies of the UK where cities such as Manchester, Sheffield, Brighton and Leeds have close proximity to rural areas such as the Peak District, the South Downs and Yorkshire Dales, but it may also offer routes to building more inclusive nature space use and strengthening senses of attachment and belonging. Other areas of the UK such as the South Pennines have complex 'blended' rural-urban geographies which incorporate both rural and urban communities. An example of what a more 'hybrid' rural-urban approach can look like can be seen in the South Pennine Park.

Finally, as mentioned earlier, there is a relative lack of **intersectional approaches** in the evidence base. There was clear evidence in some studies of the intersectional relationship between low income and ethnicity [12,20], and some evidence of social class and ethnic diversity within the four under-represented social groups. However, given the increasingly mainstream recognition of the ways in which social identities are affected by multiple social factors, then research approaches which recognise the intersectional issues and

inequalities which can impact all four social groups might be expected. Qualitative and quantitative datasets which provide evidence of the intersectional effects on nature space relationships would offer valuable granular and multi-faceted insights for understanding nature use barriers and how to address these.

Lessons for developing and evaluating inclusive nature engagement interventions

There is a relative **lack of publicly-available data and evaluation of what works and the successes or failures of policy interventions**. While there is monitoring of visitor numbers to nature space and types of usage there are fewer published studies that evaluate policies and interventions which aim to address barriers and increase access and usage among under-represented groups. This is likely to reflect the limited resources and capacities that organisations have to conduct rigorous post-intervention evaluations.

Building in resources (time, staff, funding) for publicly-available evaluation work will be important in developing the existing evidence base. Making evaluation and reflexive practitioner accounts of initiatives and interventions more widely available would provide a hugely valuable resource for policy and organisational communities informing as well as expanding routine best practice in strategic work for enhancing nature equity.

However, evaluation processes and data collection do not take place in isolation and findings are not necessarily acted on. Dempsey and Dobson highlight some of the issues regarding acting in practice from both academic research and evaluations. Even when there is clear evidence of a need for intervention, they note that policy makers and practitioners can get caught up in ‘logics of inaction’ or reasons for not acting on the evidence (such as costs and a lack of resources or the absence of a legal obligation). They provide an important note of caution about putting too much stock on evaluation and evidence when they comment that ‘what is evidenced is not necessarily a sufficient argument for changing policy or practice’, showing how wider policy and political contexts also guide priorities [16].

Evaluations can play an important role in informing ‘what works’ and at best serve as a form of peer learning. However, it is important to acknowledge some of the sensitivities around how this is shared, especially when addressing issues regarding power distribution and representation. The work to meaningfully embed inclusive and equitable access to nature is set within a long history of exclusion and inequality, and becoming ‘more honest’ about this is a process where many people and communities rightly hold anger and hurt. So ‘learning from mistakes’ is something that both needs to be visible, but also can be costly for the groups involved and carries a certain vulnerability for the organisations seeking to make change.

Integrating evaluation into inclusive nature engagement projects, and implementing it at a strategic level (for example, the Equalities Impact Assessment case study) seems key, as is embedding collaborative approaches which bring together a range of creative, policy,

practitioner and user communities around the different challenges of socially inclusive greenspace (for example, the Sensory Nature case study).

While a framework for evaluation was outside the scope of this research, in drawing together the key findings of the barriers and enablers for nature connection across the four groups, the lessons from what works, and the case studies, we identified six core approaches. These might be useful starting points for developing and evaluating future interventions.

1. **Tackle common assumptions and biases** in relation to under-represented groups and nature engagement that can often be embedded in the 'normal' ways of doing things in terms of greenspace provision.
2. **Promote co-production and co-participation** through partnering cross-sector with organisations located in or working with under-served communities to develop shared projects.
3. **Support peer-led initiatives** where people from under-represented groups lead interventions and activities.
4. **Diversify the recreational offer**, recognising that leisure activities that engage with nature can take many forms, and many of these can co-exist with green and bluespace management.
5. **Get the infrastructure right** in terms of developing socially inclusive supportive resources and facilities, design interventions and management approaches.
6. **Communicate creatively** via appropriate and diverse channels, including social media, to get information out to different community networks and under-represented communities.

References

1. Askins, K. (2006) 'New countryside? New country: visible communities in the English national parks' in: Neal, S. and Agyeman, J. (eds.) *The New Countryside?: Ethnicity, Nation and Exclusion in Contemporary Rural Britain*. Great Britain: The Policy Press, pp. 149-172.
2. Autistic Society, Lothian Scottish Outdoor Education Centres (2015) *The Outdoors - A Natural Place for Young People with Autism, End of Project Report.* Available from: https://lx.iriss.org.uk/content/outdoors-natural-place-young-people-autism-end-project-report (Accessed February 2022).
3. Balai Kerishnan, P. and Maruthaveeran, S. (2021) 'Factors contributing to the usage of pocket parks—A review of the evidence', *Urban Forestry & Urban Greening*, 58, pp. 126-985. doi:10.1016/j.ufug.2021.126985.
4. Bell, S.L., Phoenix C., Lovell R. and Wheeler B.W. (2015) 'Seeking everyday wellbeing: The coast as a therapeutic landscape', *Social Science & Medicine* (1982), 142, pp. 56–67. doi:10.1016/j.socscimed.2015.08.011.
5. Bell, S.L. and Foley, R. (2021) 'A(nother) time for nature? Situating non-human nature experiences within the emotional transitions of sight loss', Social Science & Medicine (1982), 276, pp. 113867–113867. doi:10.1016/j.socscimed.2021.113867.

6. Birch, J., Rishbeth, C. and Payne, S.R. (2020) 'Nature doesn't judge you – how urban nature supports young people's mental health and wellbeing in a diverse UK city', *Health & Place,* 62, pp. 102296–102296. doi:10.1016/j.healthplace.2020.102296.
7. Booth, R. (2019) *England's National Parks out of reach for poorer people – study*. The Guardian newspaper. Monday 4th February. Available from: www.theguardian.com/environment/2019/feb/04/england-national-parks-out-of-reach-for-poorer-people-study (Accessed February 2022).
8. Boyd, F., White, M., Bell, S. and Burt, J. (2018) 'Who doesn't visit natural environments for recreation and why: A population representative analysis of spatial, individual and temporal factors among adults in England', *Landscape and Urban Planning*, 175, pp. 102–113. doi:10.1016/j.landurbplan.2018.03.016.
9. Burdsey, D. (2016). *Race, place and the seaside: postcards from the edge.* Palgrave Macmillan.
10. Campaign for National Parks (2015) *An Overview of the Mosaic Model.* Available from: www.cnp.org.uk/how-mosaic-works (Accessed February 2022).
11. Clark, P., Mapes, N., Burt, J. and Preston, S. (2013). *Greening Dementia - a literature review of the benefits and barriers facing individuals living with dementia in accessing the natural environment and local greenspace.* Natural England NERC137. Available from: http://publications.naturalengland.org.uk/publication/6578292471627776 (Accessed February 2022).
12. Commission for Architecture and the Built Environment (2010) *Urban Green Nation - building the evidence base.* Availablefrom: www.designcouncil.org.uk/sites/default/files/asset/document/urban-green-nation-summary1_0.pdf (Accessed February 2022).
13. CPRE (2021) *Access to Nature in the English Countryside*. Available from: www.cpre.org.uk/resources/2021-research-overview-access-to-nature-in-the-english-countryside/ (Accessed March 2022).
14. Cronin-de-Chavez, A., Islam, S. and McEachan, R.R. (2019) 'Not a level playing field: A qualitative study exploring structural, community and individual determinants of greenspace use amongst low-income multi-ethnic families', *Health & Place*, 56, pp. 118–126. doi:10.1016/j.healthplace.2019.01.018.
15. De Lima, P. (2012) 'Boundary Crossings: Migration, Belonging/'Un-belonging' in Rural Scotland' in: Hedberg, C., do Carmo, R. (eds) *Translocal Ruralism*. GeoJournal Library, vol 103. Dordrecht: Springer. doi:10.1007/978-94-007-2315-3_12 (Accessed March 2022).
16. Dempsey, N. and Dobson, J. (2021) 'Planning for sociable green spaces after COVID-19', *Town Planning Review*, 92(2), pp. 171–179. doi:10.3828/tpr.2020.84.
17. Dorset AONB Partnership. (2020) *Stepping into Nature.* Available from: www.dorsetaonb.org.uk/project/stepping-into-nature/ (Accessed February 2022).
18. Edwards, R. and Larson, B. (2022) 'Accounting for diversity: Exploring the inclusivity of recreation planning in the United Kingdom's protected areas', *Landscape and Urban Planning*, 221, pp. 1-13. doi:10.1016/j.landurbplan.2022.104361

19. Francis, C. (2021) *Why Representation Matters.* The Sensory Trust. Available from: www.sensorytrust.org.uk/blog/why-representation-matters/ (Accessed February 2022).
20. Friends of the Earth (2021) *Access to green space in England are you missing out?* Available from: https://friendsoftheearth.uk/nature/access-green-space-england-are-you-missing-out (Accessed February 2022).
21. Gidlow, C.J. and Ellis, N.J. (2011) 'Neighbourhood green space in deprived urban communities: issues and barriers to use' Local environment, 16(10), pp. 989–1002. doi:10.1080/13549839.2011.582861.
22. Glover, J. (2019) *Landscapes review: National Parks and AONBs.* London. Department for Environment, Food & Rural Affairs. Available from: www.gov.uk/government/publications/designated-landscapes-national-parks-and-aonbs-2018-review (Accessed February 2022).
23. Gould R.K., Phukan I., Mendoza M.E., Ardoin N.M. and Panikkar B. (2018) 'Seizing opportunities to diversify conservation', *Conservation Letters*, 11(4), p. e12431–n/a. doi:10.1111/conl.12431.
24. Green, J. and Ford, D. (2020). *Will Covid19 Make parks even less accessible?* Available from: www.nesta.org.uk/report/will-covid-19-make-parks-even-less-accessible/ (Accessed February 2022).
25. Groundwork (2021) *Out of Bounds Equity in Access to Urban Nature.* Available from: www.groundwork.org.uk/wp-content/uploads/2021/05/Out-of-Bounds-equity-in-access-to-urban-nature.pdf (Accessed February 2022).
26. Hackney Borough Council (2021) *Hackney Parks and Green Spaces Strategy 2021-2031*. Available from: www.consultation.hackney.gov.uk/parks-green-spaces/hackney-parks-and-green-spaces-strategy/ (Accessed March 2022).
27. Layton, J. and Latham, A. (2021) 'Social infrastructure and public life - notes on Finsbury Park'**,** *Urban Geography* pp.1-22. doi:10.1080/02723638.2021.1934631.
28. Loeffler, T. and White, K. (2021) 'Oh, the places we will go: a duoethnography exploring inclusive outdoor experiences', *Journal of Outdoor and Environmental Education* [Preprint]. doi:10.1007/s42322-021-00089-4.
29. Lovell, R. (2016) *Links between natural environments and mental health: evidence briefing.* Natural England EIN018. Available from: http://publications.naturalengland.org.uk/publication/5253709953499136 (Accessed March 2022).
30. Marmot Review (2020) *Health Equity in England: The Marmot Review 10 Years On,* The Health Foundation. Available from: www.health.org.uk/publications/reports/the-marmot-review-10-years-on (Accessed March 2022).
31. Monitor of Engagement with the Natural Environment Survey (2017): developing a method to measure nature connection across the English population (adults and children). Natural England NECR233. Available from: http://publications.naturalengland.org.uk/publication/5337609808642048. (Accessed March 2022).
32. National Park City, London (2022). Available from: www.nationalparkcity.london/ (Accessed March 2022).

33. Neal, S. and Agyeman, J. (ed) (2006) *The New Countryside? Ethnicity, nation and exclusion in contemporary rural Britain*. Great Britain: The Policy Press.
34. Neal, S. Bennett, K. Jones, H, Cochrane, A, and Mohan, G (2015), Multiculture and Public Parks: Researching Super-diversity and Attachment in Public Green Space. *Population Space and Place (21) pp. 463-475*. doi: 10.1002/psp.1910.
35. Noël, C., Van Landschoot, L., Vanroelen, C., and Gadeyne, S. (2021) 'Social Barriers for the Use of Available and Accessible Public Green Spaces', *Frontiers in Sustainable Cities*, 3. doi:10.3389/frsc.2021.744766.
36. Noor, P. (2020). 'Being black while in nature: You're an endangered species'. *The Guardian newspaper.* 31st May. Available from: www.theguardian.com/lifeandstyle/2020/may/31/being-black-while-in-nature-youre-an-endangered-species (Accessed February 2022)
37. North Norfolk Wildlife Trust (2020); Available from: www.norfolkwildlifetrust.org.uk/news-and-articles/news/all-news/2022-03-17-disadvantaged-communities-acro (Accessed March 2022)
38. O'Brien L and Morris J. (2009) *Active England, the Woodlands Project.* Forestry Commission. Available from: www.forestresearch.gov.uk/documents/787/active_england_final_report.pdf (Accessed March 2022).
39. Office for National Statistics (2020) *Access to garden spaces: England.* Available from: www.ons.gov.uk/economy/environmentalaccounts/articles/oneineightbritishhouseholdshasnogarden/2020-05-14#:~:text=Explore%20access%20to%20green%20space%20in%20your%20neighbourhood&text=One%20in%20eight%20households%20(12,Survey%20(OS)%20map%20data (Accessed February 2022).
40. Public Health England (2020) *Improving access to greenspace: a new review for 2020*. England: PHE publications. Available from: assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/904439/Improving_access_to_greenspace_2020_review.pdf (Accessed March 2022).
41. Ramblers.org.uk (2020) *The Grass isn't greener for everyone* (online) Available from: www.ramblers.org.uk/news/latest-news/2020/september/the-grass-isnt-greener-for-everyone.aspx (Accessed February 2022).
42. Ratna, A. (2017) 'Walking for leisure: the translocal lives of first-generation Gujarati Indian men and women', *Leisure Studies*, 36(5), pp. 618-632. doi:10.1080/02614367.2017.128595
43. Rishbeth, C. and Birch, J. (2021) 'Urban nature and transnational lives', *Population Space and Place*, 27(4), pp. 1–15. doi:10.1002/psp.2416.
44. Rishbeth, C., Blachnicka-Ciacek, D. and Darling, J. (2019) 'Participation and wellbeing in urban greenspace: 'curating sociability' for refugees and asylum seekers', *Geoforum*, 106, pp. 125–134. doi:10.1016/j.*geoforum*.2019.07.014.
45. Rishbeth, C., Ganji, F. and Vodick, G. (2018) 'Ethnographic understandings of ethnically diverse neighbourhoods to inform urban design practice', *Local Environment*, 23(1), pp. 36–53. doi:10.1080/13549839.2017.1385000.

46. Snaith, B. (2015) ‘The Queen Elizabeth Olympic Park: Whose Values, Whose Benefits?’ PhD thesis. University of London. Available from: https://openaccess.city.ac.uk/id/eprint/19291/ (Accessed February 2022)
47. Sugiyama, T. Thompson, C.W. and Alves, S. (2009) ‘Associations Between Neighbourhood Open Space Attributes and Quality of Life for Older People in Britain’, *Environment and Behaviour*, 41(1), pp. 3–21. doi:10.1177/0013916507311688.

Appendix

Search terms used in the literature review

- **Environmental typologies:** nature, outdoor space, urban, country and national parks, countryside, rural, areas of outstanding natural beauty, AONB, forests, woodlands, community woodland, coastal, beach, shoreline, seaside, greenspace, blue space, canal, mountains, hills, wild, conservation, heritage, biodiversity, landscape, allotment, community garden, wild, wilderness, outdoor environment.
- **Social identifiers:** poverty, lower income, limited income, restricted income, young mothers, socio-economic, deprivation, financial resource, old, older, third age, senior, elderly, retired, octogenarian, dementia, disability, physical disability, long-term health, self-reported health, poor health, deteriorating health ,blind, visual impairment, partially sighted, limited sight/mobility, wheelchair user, mental health, autism, under/representation, diversity, ethnicity, race, POC, VME, BME, BAME, ethnic minorities, marginalised.
- **Values and activities:** recreation, leisure, exercise, fresh air, wellbeing, belonging, enjoyment, pleasure, restoration, biophilia, gardening, sports, fishing, animals, inclusion, food.
- **Barriers:** racism, discrimination, exclusion, confusion, access, security, fear, unfamiliarity, transport, cost, engaging in/with, inequalities, barriers, difficulties, obstacles, limiting problems, taking part, representation,
- Evaluations, policy, interventions, programme, activity, practices, toolkit,

(including grammatical variations on stem words, e.g., landscap*, difficult*)

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