



Analysis of Responses to the Online Discussion on *‘Developing an Environment Strategy for Scotland’*

February 2019

Contents Page

EXECUTIVE SUMMARY	2
1. Introduction	10
2. Vision	13
3. Outcomes	20
4. Knowledge Accounts	33
5. Conclusions	36
Appendix 1: Knowledge Accounts – Detailed Summary of Responses	38
Appendix 2: Vision - Additional Quotes	54
Appendix 3: Outcomes - Additional Quotes	56
Appendix 4: Knowledge Accounts - Additional Quotes	61

EXECUTIVE SUMMARY

- i. In June 2018, The Scottish Government launched an eight-week national online discussion inviting feedback on a discussion paper on '*Developing an Environment Strategy for Scotland*'¹.
- ii. Discussion questions invited feedback on:
 - A draft **vision** (describing the ambition that Scotland's environment policies are working collectively to achieve)
 - A set of draft supporting **outcomes** (which must be delivered in order to achieve the vision)
 - A series of draft **Knowledge Accounts** (summarising key evidence on a range of environmental themes, which will help to identify priorities for action).
- iii. The Lines Between, an Edinburgh-based social research agency, was commissioned to independently, accurately and comprehensively undertake and report on the analysis of online discussion responses, to help inform the development of the strategy.
- iv. A total of 96 responses were received from 21 individuals and 75 organisations². Most of the organisations that took part in the discussion have an environmental focus or responsibility for the management of natural assets within their remit.

Responses to the draft vision statement

- v. A strong theme across responses was of support for the proposed vision. This ranged from full to partial endorsements of the vision statement and the accompanying explanatory sentence. Just under a quarter of respondents made qualifying comments with their positive feedback. These typically focused on the challenge of achieving the vision.
- vi. A small number of respondents (all individuals, as opposed to organisations) said they did not support the draft vision statement. Themes in their responses included a suggestion that the vision was not realistic or achievable.
- vii. Many participants highlighted the aspirational nature of the vision statement, expressing a variety of perspectives about the value of an ambitious approach. Some felt the vision was too vague, suggesting this diminished its power as a driver for change. The strategic value of the vision statement and its connection to other strategies was also commented on frequently.

¹ <https://www.gov.scot/publications/developing-environment-strategy-scotland-discussion-paper/>

² One organisation submitted two responses; during analysis these were merged into one composite response.

- viii. While the dominant theme was of overall support for the vision, in their detailed comments some respondents called for changes to specific aspects of the vision wording and/or focus. The most common theme of discussion about the draft vision related to the term 'prosper'. Respondents typically highlighted a concern that the word 'prosper' has financial or economic connotations which they suggested are at odds with the drive for change
- ix. A small number of participants endorsed the term 'prosper', describing a sense that it conveys a holistic message about growth and sustainability that goes beyond financial considerations.
- x. Much of the discussion about the explanatory sentence focused on participants' responses to key messages, issues that could be given greater prominence to, or additional themes to include.
- xi. Some felt that the vision was too short and focused. A common theme in comments on the vision's accompanying statement centred on the phrase 'earth's sustainable limits'. Several participants suggested that use of resources is currently beyond sustainable limits and urged that this be acknowledged.
- xii. A few respondents suggested the draft vision could be made more powerful by highlighting the benefits of the environment strategy for Scotland's people as well as the environment and wildlife, and incorporating a focus on equality and inclusivity within the vision and accompanying statement.
- xiii. Some participants advocated for the inclusion of references to landscape within the draft vision statement and accompanying explanatory sentence. Participants frequently described challenges they believe may hinder Scotland's ability to achieve its vision. These included concerns that an ambition to be 'prosperous' acknowledges an economic focus that is not compatible with a sustainable environmental approach, and fears that Brexit may result in fewer opportunities to work on important environmental projects that have hitherto been funded by, or achieved through, Scotland's membership of the European Union.
- xiv. There were several observations that environmental issues are interconnected and that the actions of other countries will also have a bearing on whether or not the vision is achieved. Some suggested achieving the vision will require drastic change above and beyond the steps mentioned in the strategy: both by people in the way that they consume goods and utilise resources, and by the Scottish Government in relation both to the resources it devotes to environmental issues and in its role as a legislator to monitor and enforce change.
- xv. In their comments on the vision statement some participants highlighted other issues for the Scottish Government to consider while finalising the vision and overall strategy. These included calls to:
 - Explain how the achievement of vision and outcomes will be resourced.

- Assign responsibilities for delivering the vision and outcomes.
- Draft a new Environment Bill for Scotland.

Responses to the six draft outcomes

- xvi. Many participants made general comments that apply across the six draft outcomes. Themes in these responses included:
- Expressions of broad support for the outcomes proposed.
 - Requests for greater specificity in the language used to describe outcomes, for example *‘What does ‘excellent’ and ‘sustainable’ in outcomes 4 and 6 mean?’ [Scottish Borders Council]*
 - Calls for greater detail and/or information about outcome measurements, specifically:
 - The actions and resources that will underpin how outcomes are achieved.
 - Clear timescales to measure progress towards the achievement of outcomes, including milestones, targets and review points.
 - A framework to establish governance and accountability.
 - Calls for an economic impact assessment.
 - Inclusion of other outcomes and/or greater reference to the following issues within existing outcomes, namely:
 - Landscape.
 - Inequalities.
- xvii. A few participants commented more widely on the draft outcomes. Their observations included:
- A perception that people might take the numbering to signify priorities assigned to each outcome.
 - A suggestion that it would be helpful to clarify the interrelationship between outcomes by differentiating between those that are ‘state outcomes’ (describing the desired state of the biosphere) and those which are ‘activity outcomes’ (describing how people interact with the biosphere).
 - Requests for clarity about the links between outcomes, the overall vision and other national strategies and pieces of legislation. These included calls for the delivery of a National Ecological Network, and consideration of the connection between this strategy and Scotland’s Forestry Strategy 2019-2029.
 - A few respondents identified links between outcome 3 (biodiversity), outcome 4 (quality of Scotland’s air, freshwater, seas and soils) and outcome 6 (our global footprint).

Outcome 1: We are a climate leader and play our full role in limiting global temperature rise to well below 2°C

- xviii. This outcome ranked third in terms of the number of comments received. Almost all respondents welcomed the intention to limit global warming. Some called for the Scottish Government to be more ambitious; many requested

greater clarity about aspects of this outcome. Several highlighted other relevant issues that they would like to see referenced in the outcome. A few participants provided examples of ongoing efforts to limit increases in global temperatures; some shared their fears about what might happen if Scotland does not achieve this goal.

Outcome 2: We are a zero waste, resource efficient nation

- xix. This outcome ranked second in terms of the number of comments from respondents. Most discussion participants welcomed the ambition to become a zero waste nation. Some supported the outcome without qualification, others asked for greater clarity about aspects of this outcome. Some advocated for expansion of the outcome to encompass other goals linked to resource efficiency. A few organisations shared examples of their efforts to increase resource efficiency. Some reflected on how to achieve the outcome, highlighting current inefficiencies in Scotland to address.

Outcome 3: Our biodiversity is protected and enhanced, supporting healthy ecosystems

- xx. The biodiversity outcome drew the largest number of comments from respondents. Most discussion participants approved of the stated ambition to protect and enhance Scotland's biodiversity and support healthy ecosystems. Themes of support typically focused on references to protection and enhancement being welcomed. Other themes across responses included calls for the Scottish Government to be more ambitious, and requests for greater clarity about aspects of this outcome. Some highlighted changes that they believe would need to be introduced to achieve this outcome, including the establishment of a National Ecological Network. A few highlighted specific challenges associated with achieving this outcome, raising issues such as interaction between protected species and potential threats including poor biosecurity.

Outcome 4: Our air, freshwater, seas and soils are of excellent quality

- xxi. This outcome received the fewest number of comments. Most respondents welcomed the ambition for excellent quality in Scotland's air, freshwater, seas and soils; a few highlighted the value of a combined approach to this outcome. Several respondents called for greater definition of what is meant by 'quality'. Across responses the following additions were suggested:
- The inclusion of land and trees.
 - Integration with agricultural policies.
 - Mention of water scarcity.
 - Consideration of economic benefits that will arise if this outcome is achieved.
 - Staying attuned to the unintended consequences of evolving social behaviour that might affect the quality of Scotland's environment.
 - A commitment to keeping Scotland free from pollution.

- xxii. One participant advocated for the quality of the marine environment be considered in its own right: *'We suggest that the marine environment is of such significance to Scotland that it should be the focus of its own outcome' [National Trust for Scotland].*

Outcome 5: Everyone can access, enjoy and connect with nature

- xxiii. This outcome ranked joint fourth in terms of the number of comments received. This outcome was welcomed by all discussion participants. Within the strongly positive feedback, a common theme in responses related to the notion of access. Many access barriers were identified, such as lack of transport, knowledge about the outdoors and familiarity with spending time in nature. Often these comments included reference to social and economic inequalities. Some participants highlighted the challenges associated with this outcome; a few identified potential conflicts with other objectives. These include:
- The potential negative impact of increased presence of people on wildlife and livestock.
 - That the concepts of 'enjoy' and 'connect with', referenced in the outcome, are individual preferences beyond the Scottish Government's control.
 - Reduced resources for local authorities who maintain parks and open spaces.
 - Transport poverty in rural and urban areas.
 - Access to nature competing with demands to use land for other purposes, such as housing.
 - Negative impact of increased visitors to areas that do not currently have the capacity or infrastructure to accommodate them.

Outcome 6: The global footprint of our consumption and production is sustainable

- xxiv. This outcome ranked joint fourth in terms of the number of comments received. There were strong expressions of support for this outcome. The global scope of this outcome was frequently praised and many highlighted the value of a 'whole of government' approach. Some referenced outcome 6 as crucially connected to the overarching vision set out for Scotland.
- xxv. Some asked for more detail about how this outcome would be achieved and highlighted a lack of clarity about Scotland's global footprint at present.

Responses to the eight draft Knowledge Accounts

- xxvi. Participants generally welcomed the Knowledge Accounts, with several respondents highlighting the value of the documents as a central reference point. Some potential improvements were also suggested, including:
- Scope to expand the number of Knowledge Accounts to provide a specific focus on issues of interest to the respondent.

- Increased breadth and depth of Knowledge Accounts.
 - Additional examples of evidence the respondent wished to see included.
 - Clarifying how the priorities identified in the Knowledge Accounts relate to the six draft outcomes.
 - Calls for more detail about aspects identified as past and future drivers.
- xxvii. There were suggestions that aspects of the Knowledge Accounts inextricably link and/or overlap. For example, there were calls for the following categories to be merged, or for the differences between these Knowledge Accounts made more explicit.
- Value the Environment / Natural Capital / Access to Nature
 - Natural Capital / Ecosystems and Wildlife / Green space
- xxviii. Several respondents took the opportunity to describe their organisation's contribution to the changes identified, or shared thoughts on the ways to achieve key changes.

Air Quality

- xxix. Overall the comments were supportive of the aim of achieving 'the best air quality in Europe' though some respondents called for more specific detail and/or evidence about how to assess when this was achieved and about the current position in relation to targets. Participants shared additional examples that could be included under evidence and current initiatives. They also suggested a broadening of the sections on past and future drivers to encompass other issues and opportunities.

Business Resource Efficiency

- xxx. Respondents were supportive of the aim of achieving a transition to a circular economy and considered the issues the Knowledge Account raises to be relevant. However, many would like to see a shift in emphasis towards reusing or repurposing in preference to recycling, and more sustainable approaches to packaging and use of chemicals so that recycling and remanufacturing is more feasible. A few respondents commented on past drivers that they believe should be included or better emphasised, and almost all of those commenting on this Knowledge Account had views on future drivers that they believe should be more prominently mentioned.

Ecosystems and Wildlife

- xxxi. Several respondents noted the interconnection between this Knowledge Account and the Natural Capital Knowledge Account. Some would like this Knowledge Account to have a broader and more inclusive 'whole ecosystem' approach, for example: more emphasis on climate change, marine environments, a recognition of the global and international links and

commitments, more consideration of urban environments, caution not to focus on single species or habitat/site management, recognition of the services that ecosystems can provide (e.g. in mitigating climate change and CO₂ emissions) and the importance of land use balance/diversity.

Household Resource Efficiency

- xxxii. Whilst several respondents welcomed the commitments in this Knowledge Account, many felt that it was narrowly focused on recycling as opposed to reducing consumption/use; and on householders' rather than producers' responsibilities. Most comments on the themes covered by this Knowledge Account related to a desire for a broader focus that would include biodegradability, more clearly articulated reference to circular economy objectives, reducing consumption, design for longevity and public attitudes to resource use. Some respondents mentioned additional household resources that they believe this Knowledge Account should include: for instance, energy and sewage.

Natural Capital

- xxxiii. Most respondents were supportive of the recognition that the natural environment is important to Scotland's prosperity. There were some comments on overlap or interconnections between this Knowledge Account and the Ecosystems and Wildlife and Value the Environment Knowledge Accounts, with 'duplication' of information on trends and drivers and content. Several respondents would like to see a more comprehensive Knowledge Account that would include: blue carbon/marine resources, protection of biodiversity/ecosystems in the wider environment, spanning domestic and urban landscapes, peatland, marine life, freshwater and historic environments.

Quality Green Space

- xxxiv. Respondents were generally supportive of the recognition of the human health and wellbeing benefits of quality green spaces in this Knowledge Account. A few emphasised the need to balance the needs of people with biodiversity and conservation considerations.

Value the Environment

- xxxv. The general nature of the feedback was positive, however some respondents identified potential changes that may add strength and depth to the Knowledge Account. Suggestions included revisions to the Knowledge Account's title, scope and definition. A few respondents suggested the title 'Value the Environment' might cause confusion, with the word 'value' having a monetary connotation. A small number of respondents suggested that the introduction could be enhanced by identification of different stakeholders. In comments about the values, attitude and behaviour of specific groups, some

highlighted equalities issues. Several highlighted interconnections between this Knowledge Account and the Natural Capital Knowledge Account.

Access to Nature

- xxxvi. Whilst welcoming acknowledgement of the importance of this topic and stating support for the aims articulated, several respondents noted interconnections or overlap with other Knowledge Accounts, particularly the Quality Green Space Knowledge Account. For some environmental bodies and public sector organisations, the scope of 'nature' in this Knowledge Account could be broader: they suggested it could expand beyond recreation purposes to encompass education, biodiversity, active travel and wildlife watching. They also urged for specific mention of different types of environments, including forests and woodlands.

1. Introduction

- 1.1 In June 2018, The Scottish Government launched an eight-week national online discussion inviting feedback on a discussion paper on '*Developing an Environment Strategy for Scotland*'³.
- 1.2 The discussion paper set out The Scottish Government's plans to develop an Environment Strategy, in order to:
- articulate the overarching ambitions that Scotland's environment policies are working collectively to achieve;
 - promote a whole-of-government approach to their delivery (for example by demonstrating their role in achieving the Scottish Government's National Outcomes and contribution to the UN's Sustainable Development Goals); and
 - identify high level priorities that will help to guide and coordinate activity over the coming years.
- 1.3 Online discussion questions invited feedback on:
- A draft vision (describing the ambition that Scotland's environment policies are working collectively to achieve).
 - A set of draft supporting outcomes (which must be delivered in order to achieve the vision).
 - A series of draft Knowledge Accounts (summarising key evidence on a range of environmental themes, which will help to identify priorities for action).
- 1.4 The online discussion ran for eight weeks, and findings of the discussion analysis will help to inform the development of the strategy.

Profile of participants and engagement with the online discussion

- 1.5 The online discussion received 96 responses from 21 individuals and 75 organisations⁴.
- 1.6 Participants provided responses to the discussion through the online platform Citizen Space (83 responses) or by emailing their responses to the Scottish Government (14 responses). They were asked to submit a Respondent Information Form (RIF) to establish their identity, contact details and publication preferences. On the basis of a RIF being only partially completed, a response from one individual was excluded, leaving 95 responses for analysis.

³ <https://www.gov.scot/publications/developing-environment-strategy-scotland-discussion-paper>

⁴ One organisation submitted two responses: during analysis these were merged into one composite response.

- 1.7 Over half of the organisations that took part in the online discussion have an environmental focus or responsibility for the management of natural assets within their remit. The profile of organisations that took part is as follows:
- 24 environmental bodies and campaign groups, for example Friends of the Earth, Scottish Wildlife Trust and Woodland Trust Scotland.
 - 21 membership organisations or associations including CONFOR, the Law Society of Scotland and the National Farmers Union Scotland.
 - 10 public sector organisations and Non-Departmental Public Bodies such as Historic Environment Scotland, NHS Health Scotland, Scottish Canals and Crown Estate Scotland.
 - 5 environmental research groups for example the James Hutton Institute, The Department for Social Responsibility and Sustainability, University of Edinburgh.
 - 7 local authorities.
 - 7 businesses, such as EDF Energy, The Scottish Salmon Company and BioBags Scotland Ltd.

Approach to analysis and reporting

- 1.8 A coding framework, based on a review of the discussion questions and sample of responses was developed. Qualitative data (responses to open questions) was coded manually according to specific themes; quantitative data was analysed with Excel.
- 1.9 While qualitative analysis of open-ended questions does not permit the quantification of results, we signify the weight of a particular view with the following framework:
- Almost all - dominant theme across responses.
 - Many/several - a reoccurring theme, not mentioned by all.
 - Some/a few - a minor theme.
 - A small number - infrequent mention by more than one respondent, not common.
 - One - issue raised by one respondent.
- 1.10 This report presents the range of views expressed and trends amongst responses. During analysis it became evident that a few participants repeated aspects of their responses across questions. In some cases, parts of a response aligned more closely with another question in the discussion document. To avoid repetition, the analysis is presented under the most appropriate thematic heading.
- 1.11 Where appropriate, quotes have been included to illustrate key points. Quotes provide useful examples, insights and contextual information, but may not always represent the views of entire groups, such as entire industries, sectors, or geographic areas of Scotland. Where participants gave permission for their responses to be published we have quoted directly, however minor

spelling or grammatical errors have been corrected to improve readability.

- 1.12 Two organisations asked for their response not to be published. Their responses were included in analysis, but no quotes have been drawn from their submissions. In all cases, where a quote is drawn from an individual, it has been attributed to an 'individual' rather than a specific person.

Report structure

- 1.13 The Lines Between were commissioned 'to produce a clear and concise report for publication, that reflects a robust analysis of the responses to the discussion paper'. This report presents the findings:

- Chapter 2 presents an analysis of responses to the draft vision statement.
- Chapter 3 presents an analysis of responses to the six draft outcomes.
- Chapter 4 presents an analysis of general responses to the eight draft Knowledge Accounts (with a more detailed analysis of comments on individual Knowledge Accounts in Appendix 1).
- Chapter 5 presents conclusions and reflections for the Scottish Government to consider when developing the Environment Strategy.

2. Vision

Introduction

- 2.1 This chapter presents analysis of responses to the draft vision put forward by the Scottish Government. It describes the discussion question, number of responses, level of support for the vision and suggested amendments to the draft wording. Participants' comments on barriers that will impede the likelihood of achieving this vision, examples of its enactment and other things to consider in the strategy development are also addressed. A sample of quotes that typify the views expressed by respondents in relation to the vision is included at the end of the chapter and in Appendix 2.

Online discussion question

- 2.2 The discussion document stressed the strategy would set out a shared vision of Scotland's environment and climate change policies and their contribution to social wellbeing and inclusive, sustainable economic growth. Question one asked participants for their views on the draft vision:

Our draft vision is for “one planet prosperity”. This means protecting nature and living within the Earth’s sustainable limits, while building a more prosperous, innovative and successful nation.

- 2.3 Every discussion participant responded to this question. While most respondents focused on the vision, some also made general comments on the strategy or on other discussion themes; a few mentioned issues not covered in the strategy that they felt to be relevant.

Responses to the draft vision statement

Support for the vision

- 2.4 A strong theme across responses was of support for the vision put forward. This ranged from full to partial endorsements of the vision statement and the accompanying explanatory sentence. Expressions of full support are typified by the following examples ‘*Scottish Canals supports this draft vision statement*’, ‘*very pleased to see that nature is at its core*’ [Individual].
- 2.5 Just under a quarter of respondents made qualifying comments with their positive feedback. These typically focused on the challenge of achieving the vision, such as ‘*we support the scope and ambition of the vision whilst simultaneously recognising that significant work will need to be undertaken to meet this*’ [Royal Zoological Society of Scotland].
- 2.6 A small number of respondents said they did not support the draft vision statement. Themes in their responses included a suggestion that the vision was not realistic or achievable, for example: ‘*While this view is well-meaning*

and very open-ended it totally ignores the vast disconnect between current thinking and reality. There seems to be a tree-hugger mentality within the statement' [Individual]. 'NFU Scotland remains to be convinced about the merits of adopting this vision. If, according to the ecological footprint measure, Scotland needs approximately three planets to sustain its current living, reducing that to one planet sounds logical and laudable. But what does it actually mean in practice?'

- 2.7 Many participants highlighted the aspirational nature of the vision statement, expressing a variety of perspectives about the value of an ambitious approach. Positive comments frequently referenced the importance of inclusivity, for example *'it seems to have a global understanding of the environment and its benefits for all'* [OPENSspace Research Centre].
- 2.8 Some described the vision as vague. On this theme, a few respondents reflected that this was helpful, suggesting that *'constructive ambiguity'* [Scottish Wildlife Trust] opened up possibilities for the vision to appeal to a broad range of audiences. A small number suggested this diminished its power as a driver for change. For example, *'it should be noted that the holistic nature of the approach could also present difficulties in translating it into action'* and *'it is too broad to act as a vision that everyone is likely to connect with'* [Climate Ready Clyde]. One participant suggested *'the term "one planet prosperity" is very clunky – it has no obvious meaning on its own'* [Nautilus Consultants].
- 2.9 The strategic value of the vision statement and its connection to other strategies was also commented on frequently. Many participants praised the global nature of the outlook conveyed through the statement and references to international efforts. Some mentioned the relevance of the vision to other work being undertaken in Scotland, for example:

'It is laudable that one planet prosperity defines the vision for the Environment Strategy, reflecting the approach taken in SEPA's regulatory strategy' [Department for Social Responsibility and Sustainability (SRS) at the University of Edinburgh].

Suggested amendments to the draft vision statement

- 2.10 While the dominant theme was of overall support for the vision, in their detailed comments some respondents called for changes to specific aspects of the vision wording and/or focus.

Prosper

- 2.11 The most common theme of discussion about the draft vision related to the term *'prosper'*. Respondents typically highlighted a concern that the word *'prosper'* has financial or economic connotations which they suggested are at odds with the drive for change. *'If by "prosperity" it means "material wealth" or "GDP" then this is fundamentally incompatible with the stated "one planet" aspiration. However, if it means "well-being", or has defined environmental*

and social as well as economic components (as suggested under 'Tackling global environmental challenges') then this should be made clear and an explanation given of how it will be measured' [The Association for the Protection of Rural Scotland]. 'The vision is very important in establishing the need to live within our environmental means, but the link to 'prosperity' underplays both the immediacy and significance of the challenges we face' [Game and Wildlife Conservation Trust].

- 2.12 A small number of participants endorsed the term 'prosper', describing a sense that it conveys a holistic message about growth and sustainability that goes beyond financial considerations.

The explanatory sentence that accompanies the vision statement

- 2.13 Linked to the points made above in relation to the vision statement, some participants questioned the use of the term 'prosperous' in the supporting sentence that explains the vision. One person suggested that the draft strategy could be enhanced by the inclusion of a glossary to define terms such as prosperity that might be open to interpretation.
- 2.14 Much of the discussion about the explanatory sentence focused on participants' responses to key messages, issues that could be given greater prominence to, or additional themes to include.
- 2.15 Some felt that the vision was too short and focused. They advocated for some or all of the outcome themes to be explicitly incorporated within the vision statement or accompanying explanatory sentence.
- 2.16 A common theme in comments on the vision's accompanying statement centred on the phrase 'earth's sustainable limits'. Several participants suggested that use of resources is currently beyond sustainable limits and urged that this be acknowledged, asking for an explicit definition of what one-planet living will mean.
- 2.17 One participant suggested that the term 'while' suggested a hierarchy of priorities in Scotland's vision, as follows: *'use of the term "while" may risk the vision being misinterpreted as seeking a balance between environmental protection and development. It may be better to use a more unambiguous phrase that clearly explains the vision as prospering "within" environmental limits' [IEMA].*
- 2.18 Themes in specific comments on the text are set out below:

Protecting and enhancing

- Several respondents asked for the explanatory sentence on the vision to reference 'enhancing' nature, rather than simply 'protecting' nature. One explained this as follows *'it is important we strive to improve on our current position where possible rather than remain static' [Scottish Land and Estates].* Two participants suggested this change would bring the

draft Environment Strategy in line with the 'Environment' National Outcome in the National Performance Framework.

Greater mention of people

- A few respondents suggested the draft vision could be made more powerful by a greater focus on people, through changes such as highlighting the benefits of the environmental strategy for Scotland's people as well as the environment and wildlife. For example, there were suggestions that health and wellbeing impacts should be given more prominence. Others advocated for incorporating a focus on equality and inclusivity within the vision and accompanying statement; some referred to the inclusion of equity in the UN's Sustainable Development Goals.

Greater mention of landscape

- Some participants advocated for the inclusion of references to landscape within the draft vision statement and accompanying explanatory sentence. For example, one respondent suggested any mention of 'nature' should be followed by the words 'and landscape' in order to bring together related aspects of legislation and policy.

Examples of suggested revisions

2.19 Reflecting the suggested changes to the vision statement and explanatory sentence described above, a few revisions were put forward by respondents. These included:

- *'We would suggest adding in the words "and enhancing" after "protecting". So the Vision would be - "Our draft vision is for "one planet prosperity". This means protecting and enhancing nature and living within the Earth's sustainable limits, while building a more prosperous, innovative and successful nation'. [John Muir Trust]*
- *'To mirror the language of the new National Performance Framework (NPF) Purpose statement, and the introduction to the Discussion paper, the wording of the Vision could be revised to refer to 'protecting nature and living within the Earth's sustainable limits, while building a more prosperous, flourishing, innovative and successful nation. The use of 'flourishing' would help with consistency of message and the balance across the economic, environmental and social ambitions of the Strategy.' [James Hutton Institute]*
- *'We are generally in agreement with, and supportive of, the draft vision of 'one planet prosperity but would suggest this should also make reference to health, for example, "...while building a more prosperous, healthy, innovative and successful nation".' [Greenspace Scotland]*

- *'We welcome and agree with this vision, however we do feel that the wording should say 'protecting and enhancing nature.' [Woodland Trust Scotland]*
- *'We suggest that amending the vision statement along the following lines would provide the vision intended by the discussion paper while also remaining consistent with modern sustainable development thinking and avoid misinterpretation: "Our vision is for a 'one planet' Scotland. This means protecting and enhancing nature and living with the Earth's sustainable limits, in order to underpin the well-being of a successful nation and its inhabitants".' [RSPB]*

2.20 Alongside these suggested revisions, a small number of respondents asked the Scottish Government to give stakeholders another opportunity to comment on the strategy before it is finalised.

Barriers to achieving the vision

2.21 Participants described challenges they believe may hinder Scotland's ability to achieve its vision. These included:

- Suggestions that without specific resources, policy targets, timescales and mechanism for delivery, or a framework for accountability, the strategy will lack power.
- A fear that the strategy does not sufficiently convey the sense of urgency required to achieve the changes sought.
- Perceptions that a lack of clarity about where the strategy fits in terms of hierarchy of interlinked strategies may serve to dilute accountability.
- Concerns that an ambition to be 'prosperous' signifies an economic focus that is not compatible with a sustainable environmental approach.
- A fear that Brexit may result in fewer opportunities to work on important environmental projects that have hitherto been funded by, or achieved through, Scotland's membership of the European Union.
- Observations that environmental issues are interconnected and that the actions of other countries will also have a bearing on whether or not the vision is achieved.
- Suggestions achieving the vision will require urgent, drastic change above and beyond the steps mentioned in the strategy, for:
 - People, in the way that they consume goods and utilise resources.
 - The Scottish Government in relation to the resources it devotes to environmental issues and in its role as a legislator, to monitor and enforce change.

Examples related to the draft vision statement

2.22 Many respondents shared examples of ways their organisation contributes to the achievement of Scotland's vision. They frequently described efforts to preserve resources and protect land, flora and fauna.

Our farming and land-use programmes bring farmers, crofters, land managers, agricultural and environmental experts and researchers together, to share and build knowledge, skills and innovation for low carbon, nature-friendly farming which is profitable and productive. Our Food Life programme works with Local Authorities across Scotland, working with schools to serve food that's good for health, the environment and the local economy. Therefore, we fully support this vision and our work is already helping to realise it. [Soil Association Scotland]

Other comments on the strategy

2.23 In their comments on the vision statement some participants highlighted other issues for the Scottish Government to consider while finalising the vision and overall strategy. These included calls to:

- Explain how the achievement of vision and outcomes will be resourced.
- Assign responsibilities for delivering the vision and outcomes.
- Draft a new Environment Bill for Scotland.
- Reconsider the language and terminology used to convey a greater sense of urgency and a stronger commitment to achieving change.
- Revisit the framing of the strategy, perceiving it to reflect the current environment portfolios of government. There were suggestions it should also encompass interlinked policy areas such as agriculture, transport, planning and energy.

2.24 Six respondents, in comments about the discussion paper, suggested that it should be expanded to address the issue of 'noise' and/or 'light pollution', either within the vision, outcomes or knowledge accounts. These participants suggested variously that noise is 'a significant form of environmental pollution' [Individual], that landscape design and place-making can reduce the impact of noise pollution [Architecture and Design Scotland], that noise pollution is an environmental health issue [Aberdeen City Council and Environmental Protection Scotland] and has a detrimental impact on health and wellbeing [Law Society Scotland] and wildlife [Bug Life].

A sample of illustrative quotes that typify the themes identified in this section:

- “ *The Vision is clear, concise and includes all the key sustainability issues and opportunities affecting Scotland. [Scottish Golf]*
- “ *While we are supportive of the general direction of the vision, it does not contain any mention of the role or importance of people. We call for the vision to be framed more around behaviour change and the role that people can play. [Keep Scotland Beautiful]*
- “ *It isn't clear how prosperity and success are defined in the draft vision. Both words could potentially be misinterpreted in a narrow economic sense whereas I think the intention is to achieve positive social (e.g. improving the nation's health & well-being in addition to tackling inequality) and environmental as well as economic outcomes. [Individual]*
- “ *We welcome the commitment and connected approach set out by the discussion paper to develop a strategic Environmental strategy for Scotland. Scotland's natural environment and resources are fundamental to realising many outcomes within Scotland's National Programme, including realisation of successful low carbon economies, high quality places and improved well-being. [British Geological Survey]*
- “ *The first element that defines the vision could be strengthened with emphasis on this interconnectedness and the value of biodiversity (rather than reference to “nature”) for itself and as provider of crucial ecosystem services (rather than reference to “Earth's sustainable limits”, which is more ambiguous). The word “inclusive” should be a part of the second element of the defined vision. Words such as prosperous and successful could be replaced by more meaningful words that represent elements of a prosperous and successful nation such as inclusive, healthy, resilient, for instance. [Department for Social Responsibility and Sustainability, University of Edinburgh]*
- “ *The vision is welcomed, if ambitious; recognising there is a long way to go from where we are now. It is high level and the devil will be in the detail. [NHS National Services Scotland]*
- “ *More generally, the holistic and integrated approach taken by the Discussion Paper is welcome, although it appears to completely ignore one significant form of environmental pollution - noise. [Individual]*

3. Outcomes

Introduction

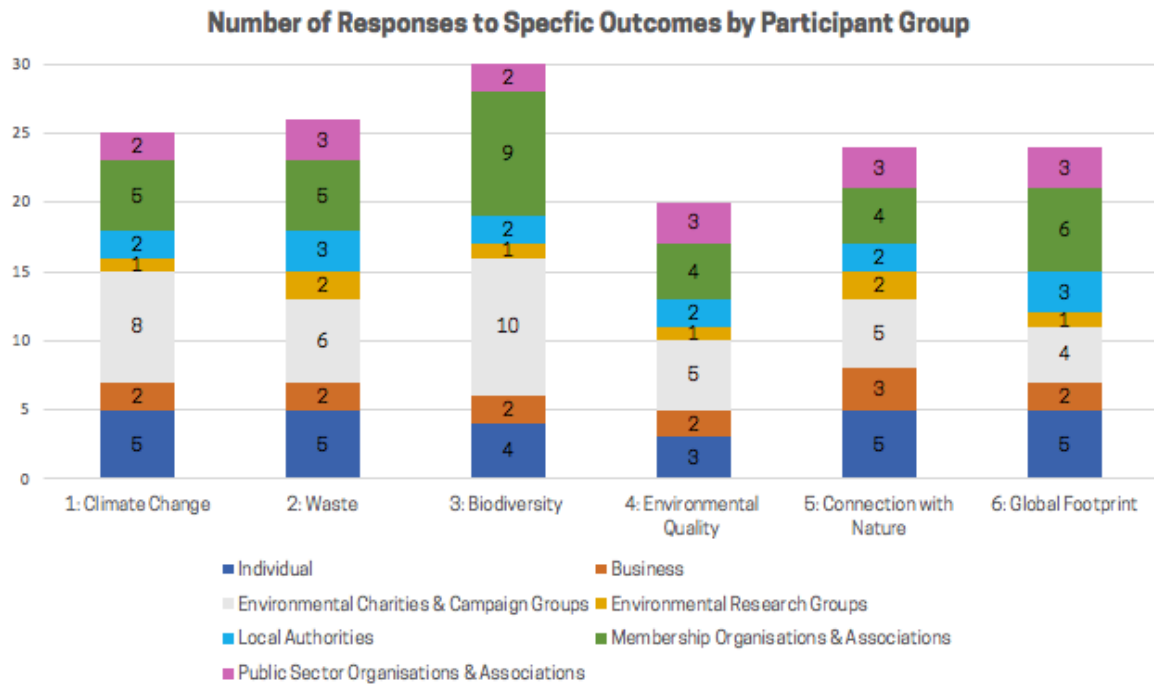
- 3.1 This chapter presents analysis of responses to the six draft outcomes put forward by the Scottish Government. It describes the discussion question, number of responses, breakdown of responses by individuals and type of organisation and the nature of any general comments across the outcomes. This is followed by detailed summaries of the responses to each specific outcome, along with suggested amendments to the draft wording. A sample of quotes that typify the views expressed by respondents in relation to the outcomes is included in Appendix 3.

Online discussion question

- 3.2 The second question in the discussion document asked participants for their views on six draft outcomes that underpin the vision set out in the strategy document:

1. We are a climate leader and play our full role in limiting global temperature rise to well below 2°C.
2. We are a zero waste, resource efficient nation.
3. Our biodiversity is protected and enhanced, supporting health ecosystems.
4. Our air, freshwater, seas and soils are of excellent quality.
5. Everyone can access, enjoy and connect with nature.
6. The global footprint of our consumption and production is sustainable.

- 3.3 Almost all (93 discussion participants) provided a response to this question. Many shared general comments across the six outcomes, some participants made detailed comments in response to each outcome and a few only responded to specific outcomes. Some respondents combined these approaches, sharing general comments and detailed feedback on particular themes.
- 3.4 The chart below shows the number of responses to specific outcomes by participant type. It shows some variation in frequency of responses, depending on the issue. For example, the outcome on biodiversity garnered more comments from membership organisations than any other outcome; local authorities had a slightly higher response rate to outcomes 2 (waste) and 6 (global footprint).



General comments about the outcomes

3.5 Many participants made general comments that apply across the six draft outcomes. Themes in these responses included:

- Expressions of broad support for the outcomes proposed.
- Requests for greater specificity in the language used to describe outcomes, for example *‘What does ‘excellent’ and ‘sustainable’ in outcomes 4 and 6 mean?’ [Scottish Borders Council]*
- Calls for greater detail and/or information about outcome measurements, specifically:
 - The actions and resources that will underpin how outcomes are achieved.
 - Clear timescales to measure progress towards the achievement of outcomes, including milestones, targets and review points.
 - A framework to establish the governance and accountability.
 - Calls for an economic impact assessment.
- Inclusion of additional outcomes and/or greater reference to the following issues within existing outcomes, namely:
 - Landscape.
 - Land use.
 - Inequalities.
 - Scotland’s global commitments to realising the UN’s Sustainable Development Goals.

3.6 Reflecting across responses, it was evident that material within the discussion document had been overlooked by some participants. For example, a small number suggested the document lacked reference to something that was covered in another section of the discussion paper. In some cases, there were explicit or implicit calls for aspects of the strategy to be restructured.

Examples include requesting certain outcomes to be referenced in the vision statement or asking for outcomes to be merged or distilled into separate elements.

- 3.7 A few participants commented more widely on the draft outcomes. Their observations included:
- A perception that people might take the numbering to signify priorities assigned to each outcome.
 - A suggestion that it would be helpful to clarify the interrelationship between outcomes by differentiating between those that are ‘state outcomes’ (describing the desired state of the biosphere) and those which are ‘activity outcomes’ (describing how people interact with the biosphere).
 - Stated preferences about the hierarchy of outcomes: several suggested that outcome 6 (global footprint) underpinned all other ambitions; a small number felt that outcome 3 (biodiversity) was the founding block of Scotland’s environmental goals; others suggested that outcome 5 (connection with nature) was most important.
 - Requests for clarity about the links between outcomes, the overall vision and other national strategies and pieces of legislation. These included calls for the delivery of a National Ecological Network, and consideration of the connection between this strategy and Scotland’s Forestry Strategy 2019-2029.

3.8 Examples of participants’ reflections across the draft outcomes include:

“ It is clear that outcomes 3 and 4 are “state outcomes” - that is, outcomes that describe the desired state of the biosphere; while the remaining for are “activity outcomes” – describing how we (as the population of Scotland) interact with that biosphere. It may be appropriate, for the better understanding and presentation of the outcomes as well as to enable monitoring, for this to be made clearer. [RSPB]

“ There is the potential for some of the outcomes to be interrelated, e.g. if this outcome [Biodiversity] includes increasing blue/ green infrastructure this could help achieve outcomes under 2 [Zero Waste] and 5 [Connection with Nature]. [Aberdeen City Council]

“ LIS finds this list of draft outcomes to be too general and recommend that they be more specific and SMART, and as numbered bullets tends to suggest a hierarchy of intentions, would therefore suggest using bullet points without numbers. If there is to be hierarchy intended then surely 5) & 3) need to be at the top of this list for this Strategy? [Landscape Institute Scotland]

Responses to Outcome 1: We are a climate leader and play our full role in limiting global temperature rise to well below 2°C

Introduction and overview

- 3.9 This outcome ranked third in terms of the number of comments received. Roughly a quarter of all online discussion participants - a total of 25 respondents - made detailed comments on outcome 1. This group comprised 8 environmental charities, 5 individuals, 5 membership organisations, 4 local authorities/public sector organisations, 2 businesses and 1 environmental research group.
- 3.10 Responses were generally concise, albeit a few longer responses from organisations such as the Mineral Products Association, which included examples and detailed considerations of some of the changes inherent in achieving this outcome.
- 3.11 Almost all respondents welcomed the intention to limit global warming. Some called for the Scottish Government to be more ambitious; and many requested greater clarity about aspects of this outcome. Several highlighted other relevant issues that they would like to see referenced in the outcome. A few participants provided examples of ongoing efforts to limit increases in global temperatures; some shared their fears about what might happen if Scotland does not achieve this goal.

Scotland as a climate change leader

- 3.12 A small number of participants noted that this outcome will help to position Scotland as a climate change leader and support international efforts to collaborate on issues related to global temperature increases.
- 3.13 Several respondents welcomed the ambition for Scotland to be a climate leader; one urged the Scottish Government to clarify the intention behind this term. One respondent criticized the reference to leadership, noting *'it doesn't matter about being a "climate leader" focus on the 2-degree limit and not the status you seem to crave' [Individual]*.
- 3.14 One respondent suggested a small change to the wording of the outcome, to reinforce the notion of this being a national commitment: *'Outcome 1 would be strengthened by changing the wording to read "We are a climate leader committed to playing our full role in limiting global temperature rise to well below 2 °C"' [Transition Edinburgh]*.

The temperature change goal

- 3.15 A key theme across responses were concerns that the 2-degree temperature limit specified in this outcome was too high. Many suggested that Scotland should be more ambitious; often advocating for committing to a limit of 1.5

degrees. Some of those who suggested this revision suggested that specific mention of the Paris Agreement⁵ should be included within the outcome.

- 3.16 Linked to the above, many respondents suggested that the term '*well below*' 2 degrees was too fluid. They called for a specific target in relation to temperature, that progress can be measured against.
- 3.17 A few participants called for the inclusion of a timeframe for the achievement of this outcome. In comments about long term goals, some urged the Scottish Government to go further and commit to a net zero greenhouse gas target for 2050.
- 3.18 A small number of individual respondents suggested that the 2-degree temperature limit put forward is unrealistic and/or unachievable. In these comments they either disagreed with the notion of human contributions to global temperature rises or suggested the issue is beyond Scotland's control. *'It's almost surreal and delusional that any group of people or government can envisage that they can somehow control or regulate the world climate temperature against colossal cosmic forces. There is actually no direct evidence that any by-product of man including CO₂ alter the climate in any way, CO₂ levels are driven by mainly ocean warming or cooling, which is regulated by jet stream and geological forces including underwater volcanoes, which heat the seas'* [Individual].
- 3.19 Others felt that the global temperature rise is likely to be higher and urged the Scottish Government to reflect this constraint in the draft outcome. For example, *'Better to say "minimise" or "trying to limit..."'* [Individual].
- 3.20 Some respondents asked for more detail in the outcome statement. Suggested additions included:
- Mention of the need for climate adaptation.
 - Descriptions of actions that will lesson global temperature rises.

Efforts to limit global temperature increases

- 3.21 A few participants took the opportunity to describe how their organisation contributes to Scotland's achievement of the outcome, for example:

⁵ <https://unfccc.int/process#:a0659cbd-3b30-4c05-a4f9-268f16e5dd6b>

Amongst our varied roles and responsibilities as lead public body for the historic environment, we are identified as a 'major player' in the Climate Change (Scotland) Act 2009. We carry out our duties in respect of this by implementing our Climate Change Action Plan 2012–2017 and to support this we carry out a range of activities such as research into energy efficiency improvements in a range of traditional building types and the impact of climate change and risks to the historic environment; including dissemination of information, and by providing guidance and training to stakeholders in the historic environment sector. [Historic Environment Scotland]

3.22 A small number of participants described their fears about the consequences of not achieving Outcome 1:

Even with urgent emissions reductions, Scotland's climate will continue to change, presenting challenges across all sectors, including our land, air and water, and affecting the ability to achieve the other outcomes. [Climate Ready Clyde]

Responses to Outcome 2: We are a zero waste, resource efficient nation

Introduction and overview

- 3.23 This outcome ranked second in terms of the number of comments from respondents. Just over a quarter of all online discussion participants - a total of 26 respondents - commented on outcome 2. This group comprised 6 environmental charities, 6 local authorities/public sector organisations, 5 individuals, 5 membership organisations, 2 businesses and 2 environmental research groups.
- 3.24 Responses to this outcome were concise, averaging approximately 200 words. They ranged from a one-word answer from an individual to a long response from Historic Environment Scotland which included references to relevant duties, strategies and sources of evidence.
- 3.25 Most discussion participants welcomed the ambition to become a zero waste nation (see 3.27). Some supported the outcome without qualification, for example *'this is particularly appropriate to Scotland, fitting into what is already an agenda of rising importance'* [WSP].
- 3.26 Other themes across responses included requests for greater clarity about aspects of this outcome (see 3.29). Some advocated for expansion of the outcome to encompass other goals linked to resource efficiency (see 3.30).
- 3.27 A few organisations commented on examples of efforts to increase resource efficiency (see 3.31). Some reflected on how to achieve the outcome, highlighting inefficiencies in Scotland to address (see 3.28).

Ambition

- 3.28 The ambitious nature of this outcome was frequently commented on. Several participants commended the Scottish Government for this goal, for example ‘*a significant statement of intent which positions Scotland amongst global leaders*’ [James Hutton Institute]. Others expressed doubts that it can be achieved, through comments such as ‘*we are a long way from it*’ [Mountaineering Scotland], ‘*surely its more realistic to talk about reducing waste to a minimum?*’ [Individual] and the suggested revision ‘*committed to moving towards a zero waste future*’ [Scottish Borders Council].
- 3.29 Respondents provided numerous suggestions on how Scotland can achieve Outcome 2. These included:
- Incentives to utilise resources more efficiently.
 - Monitoring current waste levels.
 - Encouraging the adoption of circular economy principles.
 - Promoting resource efficient practices within specific industries (in particular, construction).
 - Increased provision of recycling facilities.
 - Efforts to encourage behavioural change among businesses and the wider public.
 - Legislation to change production methods and reduce emissions.
 - New procurement practices.

Comments on Waste

- 3.30 Some participants called for greater clarity and definition of the waste covered by this outcome, for example ‘*Zero Waste needs defined. Do we actually mean "Zero useful waste?"*’ [Individual]. In calling for clarity, one respondent highlighted conflicts between ‘*what is described as waste, what is avoidable waste and indeed what can be done with that waste*’ [Quality Meat Scotland].
- 3.31 A few respondents asked for the outcome to ‘*go beyond waste*’, specifically:
- Several participants called for the outcome to include a commitment to a circular economy.
 - One respondent asked the Scottish Government to incorporate a carbon-neutral ambition within the outcome.
 - Another requested that the outcome include mention of pollution reduction.
- 3.32 A small number of respondents comment on efforts to reduce waste. For example, ‘*it is encouraging to see the example set by the Scottish Parliament in withdrawing plastic drinking straws from its bars and restaurants, and that of the Scottish Government in banning single-use cups from its buildings. We note that local authorities (such as The Highland Council) are phasing out single-use plastics from its sites, including schools and council buildings*’ [Environmental Protection Scotland].

Links between outcomes

- 3.33 Some participants highlighted the connection between the themes of Outcome 2 (resource efficiency) and Outcome 6 (global footprint), through comments such as *'this has implications for Outcome 6, too'* [West Lothian Council].

Responses to Outcome 3: Our biodiversity is protected and enhanced, supporting healthy ecosystems

Introduction and overview

- 3.34 The biodiversity outcome drew the largest number of comments from respondents. Just under a third of all respondents - 30 participants - responded to this outcome, comprising 10 environmental charities, 9 membership bodies, 4 individuals, 4 local authorities and other public sector organisations, 2 businesses and 1 environmental research organisation.
- 3.35 Responses were generally concise. The range included short answers such as *'We agree with this outcome. This requires a lot of coordination across various organisations, the public and the development industry'* [Aberdeen City Council], to longer responses from organisations such as Scottish Environment LINK, which included examples, references to relevant strategies and key sources of evidence.
- 3.36 Most discussion participants welcomed the ambition to protect and enhance Scotland's biodiversity and support healthy ecosystems. One suggested that the outcome be reframed to establish healthy ecosystems as the director for biodiversity, asking that the wording be revised as follows: *'By protecting, restoring and enhancing our ecosystems, our biodiversity can flourish'* [Scottish Wildlife Trust].

Comments on protecting and enhancing biodiversity

- 3.37 Themes of support typically focused on references to protection and enhancement being welcomed; a small number of respondents also asked for the Scottish Government to incorporate a commitment to restoration.
- 3.38 Other themes across responses included calls for the Scottish Government to be more ambitious and requests for greater clarity about aspects of this outcome.
- 3.39 Some highlighted changes that they believe would need to be introduced to achieve this outcome. These included:
- The establishment of a National Ecological Network.
 - A greater focus on soil quality and maintenance, with consideration of agricultural land and forestry.
 - An emphasis within the education system on nature and biology.

- More support for organic agriculture and agroecological approaches, for example investment in and incentivising these practices.

3.40 A few highlighted specific challenges associated with achieving this outcome, describing interactions between protected species and potential threats, such as biosecurity and chemical contamination.

Links between outcomes

3.41 A few respondents identified links between outcome 3 (biodiversity), outcome 4 (quality of Scotland's air, freshwater, seas and soils) and outcome 6 (global footprint). Scottish Wildlife Trust suggested that *'the existing outcome has ecosystem health and biodiversity the wrong way around: ecosystem health is a condition of biodiversity protection and recovery'*.

Responses to Outcome 4: Our air, freshwater, seas and soils are of excellent quality

Introduction and overview

3.42 This outcome received the fewest number of comments. Just over a fifth of all online discussion participants - a total of 20 respondents – commented specifically on outcome 4. This group comprised 5 environmental charities, 5 local authorities/public sector organisations, 4 membership organisations, 3 individuals, 2 businesses and 1 environmental research group.

3.43 Responses were generally concise, with some fuller consideration of the outcomes provided by larger organisations. Most respondents welcomed the ambition for excellent quality in Scotland's air, freshwater, seas and soils; a few highlighted the value of a combined approach to this outcome, for example *'the attempt to join up land, freshwater and coastal policy is welcomed'* [Scottish Land and Estates]; others suggested that these elements are too diverse to group together.

Comments on quality and other aspects to include in this outcome

3.44 Several respondents called for greater definition of what is meant by 'quality', for example: *'clearly define "excellent quality" in the context of ecosystem health'* [Transition 2050].

3.45 One respondent welcomed the focus of this outcome, noting *'it was good to see a specific reference to the quality of these natural capital assets'* [WSP]. Several respondents called for greater clarity about aspects of this outcome and a few highlighted other relevant issues to consider. A few participants explained why this outcome is of particular interest or relevance to their organisation.

3.46 Across responses the following additions were suggested:

- The inclusion of land and trees.

- Integration with agricultural policies.
- Mention of water scarcity.
- Consideration of economic benefits that will arise if this outcome is achieved.
- Staying attuned to the unintended consequences of evolving social behaviour that might affect the quality of Scotland's environment.
- A commitment to keeping Scotland free from pollution.

How to achieve Outcome 4

3.47 A few respondents identified far reaching, cross sectoral changes that connect to this outcome. These included *'monitoring substances of known concern, but also emerging contaminants'* [Fidra], *'agriculture and land uses that will help make a positive contribution'* [Agricultural Industries Confederation], *'changes in farming and fisheries practice'* [BioBags Scotland Ltd], and *'the development, testing and application of natural capital assessment methods'* [WSP].

Links between outcomes

3.48 A small number of respondents commented on the links between outcome 4 (quality) and outcome 3 (biodiversity), for example *'healthy soil and freshwater systems depend on functioning biodiversity'* [James Hutton Institute].

3.49 One participant advocated for the quality of the marine environment be considered in its own right: *'We suggest that the marine environment is of such significance to Scotland that it should be the focus of its own outcome'* [National Trust for Scotland].

Responses to Outcome 5: Everyone can access, enjoy and connect with nature

Introduction and overview

3.50 This outcome ranked joint fourth in terms of the number of comments received. Just under a quarter of all online discussion participants - a total of 24 respondents - commented specifically on outcome 5. This group comprised 5 individuals, 5 environmental charities, 5 local authorities/public sector organisations, 4 membership organisations, 3 businesses and 2 environmental research groups.

3.51 This outcome was welcomed by all online discussion participants.

3.52 Responses were generally concise. The range included short answer such as *'Yes. It is very noticeable that the NHS has taken the measures on board and are promoting 'healthy lifestyles' in acute medical delivery centres'* [Individual]. Longer responses typically came from organisations such as The Strathclyde Centre for Environmental Law and Governance, which included examples of current relevant initiatives and discussed the implications of achieving this outcome, particularly in relation to social inequality.

Comments on this outcome

- 3.53 The feedback on this outcome was strongly positive. A common theme in responses related to the notion of access. Many access barriers were identified, such as lack of transport, knowledge about the outdoors and familiarity with spending time in nature. Often these comments included reference to social and economic inequalities. For example: *'within the strategy there should be recognition that education and awareness have important roles to fulfil in building knowledge of, and appreciation of, the environment'* [Game and Wildlife Conservation Trust]. Other examples include *'the proximity of natural and green spaces to where people live is unequally distributed, with those in most deprived areas worse off, both in terms of quality and access to the environment'* [OPENSspace research centre].
- 3.54 Several participants highlighted the social and wellbeing impacts of this outcome, for example *'taking advantage of the outdoors benefits our health and wellbeing'* [Scottish Land and Estates] and *'nature has far reaching positive effects for society in addition to increased physical and mental health'* [WSP].
- 3.55 Some participants highlighted the challenges associated with this outcome; and a few identified potential conflicts with other objectives. These include:
- The potential negative impact of increased presence of people on wildlife and livestock.
 - That the concepts of 'enjoy' and 'connect with', referenced in the outcome, are individual preferences beyond the Scottish Government's control.
 - Reduced resources for local authorities who maintain parks and open spaces.
 - Transport poverty in rural and urban areas.
 - Access to nature competing with demands to use land for other purposes, such as housing.
 - Negative impact of increased visitors to areas that do not currently have the capacity or infrastructure to accommodate them.

Suggested revisions to this outcome statement

- 3.56 Respondents' suggested revisions to this outcome reflect the themes described above, as follows:
- *'We would welcome stronger phrasing: nature access is a right, and rather than saying everyone can have access, we'd rather a more active commitment'*. [Scottish Wildlife Trust]
 - *'Suggest the wording is slightly changed to 'everyone accesses, enjoys and connects with nature'*. [Scottish Land and Estates]
 - *'Everyone can access, enjoy and connect with nature – in both urban and rural environments'*. [Nautilus Consultants]
 - *'Barriers to access are removed enabling everyone to experience, enjoy and connect with nature'*. [National Trust for Scotland]

- *‘Everyone can access, enjoy and connect with the environment’. [Historic Environment Scotland]*
- *‘Everyone can access, enjoy and connect with nature as part of their daily life’. [OPENspace research centre]*

Responses to Outcome 6: The global footprint of our consumption and production is sustainable

Introduction and overview

- 3.57 This outcome ranked joint fourth in terms of the number of comments received. Just under a quarter of all online discussion participants - a total of 24 respondents - commented specifically on outcome 6. This group comprised 6 local authorities/public sector organisations, 5 individuals, 4 environmental charities, 6 membership organisations, 2 businesses and 1 environmental research group.
- 3.58 As with other outcomes, responses were generally concise. The range included short answers with a broad expression of agreement, to longer responses from organisations such as The Strathclyde Centre for Environmental Law and Governance, which included examples of current relevant initiatives and discussed the implications of achieving this outcome, particularly in relation to social inequality.
- 3.59 There were strong expressions of support for this outcome. Examples include *‘welcome the ambition for this outcome’ [National Trust for Scotland]* and *‘approve of your outcomes...particularly No. 6’ [NHS National Services Scotland]*.

Comments on the outcome

- 3.60 The scope of this outcome was frequently praised. Reflections on the importance of a global perspective included *‘it would be possible to reduce our own emissions by importing goods from elsewhere but to think on a global scale prevents this outsourcing which just transfers the impact to another country’ [Scottish Land and Estates]* and *‘it acknowledges that damaging environmental practices are taking place in other countries on Scotland’s behalf’ [Individual]*. Others highlighted the value of a ‘whole of government’ approach through comments such as *‘this can be achieved by the Scottish Government working closely with Local Authorities’ [Environmental Protection Scotland]*.
- 3.61 Linked to the above, many highlighted outcome 6 as crucially connected to the overarching vision set out for Scotland. Examples include: *‘it acts as an umbrella statement for the other objectives’ [James Hutton Institute]*, *‘pleased to see inclusion of outcome 6 in the proposals. Sustainable consumption and production are essential components of “one planet living”’ [IEMA]*, and *‘considering our global footprint will be vital in domestic decision making’ [NFU Scotland]*.

- 3.62 Reflecting the complexity of global interconnections, one respondent asked *'what are we trying to achieve in terms of top-level outcomes. For example, do we want to be a climate change leader, or do we really want to deliver a Scotland which substantially exceeds its domestic and international obligations in carbon mitigation and can influence the actions of others as a result?'* [Scottish Borders Council]
- 3.63 Some asked for more detail about how this outcome would be achieved and highlighted a lack of clarity about Scotland's global footprint at present. One respondent said *'this objective is not SMART, making it very hard to measure'* [Aberdeen City Council]; another suggested *'that implies a reduction from where it currently is. It would be helpful to acknowledge this in the strategy'* [Mountaineering Scotland]. Some participants highlighted evidence gaps, for example in relation to current emission measurements.
- 3.64 Suggested amendments to this outcome put forward by respondents included:
- Changing 'sustainable' to 'sustainable and ethical'.
 - Acknowledgement of the circular economy within this outcome.
 - Reference to the 'planetary boundaries' framework⁶.
 - Reference to delivery of the UN Sustainable Development Goals within the outcome.
- 3.65 Two respondents expressed cynicism as to the achievability of this outcome. One said *'small sentence for a very, very big ask of voters. I don't believe it's possible without drastic changes to almost every aspect of life. Three planets to one planet!!!???'* [Biobags Ltd.] Another noted *'I suspect this is far from true. I do not see any successful Government or Council backed schemes to encourage recycling, less use and sustainability'* [Individual].

⁶ <https://www.stockholmresilience.org/research/planetary-boundaries/planetary-boundaries/about-the-research/the-nine-planetary-boundaries.html>

4. Knowledge Accounts

Introduction

- 4.1 This chapter presents analysis of responses to the eight draft Knowledge Accounts put forward by the Scottish Government. It describes the discussion question and number of responses with a breakdown of responses by individuals and type of organisation. The nature of general comments across the Knowledge Accounts is also summarised.
- 4.2 Detailed summaries of the responses to each specific Knowledge Account, along with any suggested amendments to the draft wording, are shown in Appendix 1. Quotes that typify responses are provided in Appendix 4.
- 4.3 Some respondents described additional content they would like to see incorporated in the Knowledge Accounts on a point by point basis; with particular references to evidence that they thought would add value. Acknowledging the succinct nature of this report, the detailed responses are available for review and consideration by the Scottish Government.

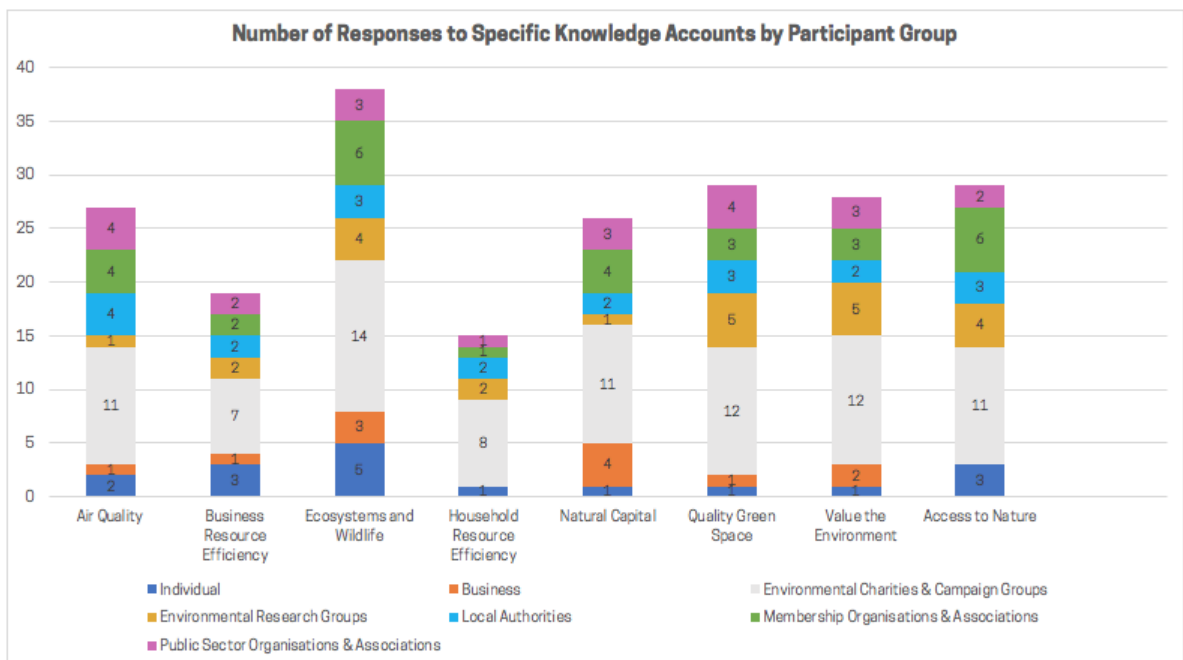
Discussion question

- 4.4 The discussion document included a link to eight Knowledge Accounts⁷. These are summary documents that were developed by the Scottish Government before the discussion paper was drafted.
- 4.5 Each draft Knowledge Account focuses on a different environmental theme, setting out baseline evidence that will help to inform the development of the Environment Strategy. The Knowledge Accounts set out the current situation, factors which have influenced this position, Scotland's ambitions in relation to this aspect of the environment and the likely future drivers of change. In addition, the Knowledge Accounts identify key gaps in the evidence base which will need to be addressed.
- 4.6 Discussion question three asked: what are your views on the draft Knowledge Accounts which will be used to help identify priorities for action in the coming years? What additional sources of key evidence can you add?
- 4.7 The eight Knowledge Accounts relate to:

- Air Quality
- Business Resource Efficiency
- Ecosystems and Wildlife
- Household Resource Efficiency
- Natural Capital
- Quality Green Space
- Value the Environment
- Access to Nature

⁷ <https://www.gov.scot/Publications/2018/06/4147/downloads>

- 4.8 Almost all (93) participants provided a response to this question. Many offered a general comment across the Knowledge Accounts reflecting on the value of a central reference point for key environmental issues. Approximately one third of respondents commented on specific Knowledge Accounts, typically sharing their expertise on particular topics. Some respondents combined these approaches, offering general comments and detailed feedback on particular Knowledge Accounts.
- 4.9 The chart below shows the number of responses to each specific Knowledge Account by participant type. It shows some variation in frequency of responses, depending on the issue – the level of interest broadly aligns with the responses to specific outcomes as described in chapter 3. For example, the Ecosystems and Wildlife Knowledge Account garnered more comments from environmental charities and campaign group organisations than any other Knowledge Account; local authorities had a slightly higher response rate to the Air Quality Knowledge Account than any other Knowledge Account.



General comments across the Knowledge Accounts

- 4.10 Participants generally welcomed the Knowledge Accounts, with several respondents highlighting the value of the documents as a central reference point.
- 4.11 One person suggested the title 'Knowledge Account' was unhelpful and urged for the Knowledge Accounts to be described as 'position statements' instead. Another described a sense of disappointment that the Knowledge Accounts present existing information and do not contain new evidence.
- 4.12 As with the comments on outcomes, there were suggestions that aspects of the Knowledge Account are interconnected and/or overlap. For example, there were

calls for the following categories to be merged, or for the differences between these Knowledge Accounts to be made more explicit.

- Value the Environment / Natural Capital / Access to Nature.
- Natural Capital / Ecosystems and Wildlife / Quality Green Space.

4.13 Several respondents took the opportunity to describe their organisation's contribution to the ambition described in 'where do we want to be?', or shared thoughts on the ways to achieve key changes. For example, the Heritage Lottery Fund described their work in relation to the Knowledge Accounts on Quality Greenspace and Natural Capital. Historic Environment Scotland highlighted their activity in relation to Air Quality, Business Resource Efficiency and Household Resource Efficiency.

4.14 It was noted that across and within responses the Scottish Government was signposted to a range of reports, data sets, projects and programmes that respondents felt could make a valuable contribution to the evidence base.

5. Conclusions

- 5.1 Many individuals and organisations that represent, live, operate from and work in Scotland took part in the online discussion. They were typically highly-engaged and knowledgeable about issues relating to the environment, sharing expertise, examples and reflections on ways to achieve change and address challenges. These responses provide a useful source of opinions and information for the Scottish Government to draw upon in the development of the Environment Strategy.
- 5.2 The profile of respondents - a group who in the main are already focused on environmental issues - is also testament to a crucial difficulty that almost all respondents highlighted. That issue is the challenge of engaging the public in matters to do with the environment and achieving behavioural change. Across responses, online discussion participants frequently praised the decision to include consideration of the environment in relation to people within the strategy. This was manifest through comments on the inclusive 'one planet prosperity' approach and responses to specific outcomes such as access to the environment. However, individuals only accounted for 22% of responses, and it is noticeable that resistance to some of the key changes advocated in the strategy often came from this small group.
- 5.3 Another important reflection is that the voices of young people are rarely heard in this discussion. While many of the charities and environmental organisations that took part include young people within their membership, the public sector organisations that participated are responsible for young people in their care, and one participating organisation is wholly focused on, and run/managed by young people, there was no explicit response from a respondent who identified as a young person. Given the vital importance of this strategy to future generations this is a gap in participation that the Scottish Government should continue to address.
- 5.4 The overriding message from respondents was of support for the general approach put forward. Some urged the Scottish Government to go further; others perceived the draft strategy as bold. Almost all highlighted the challenges of achieving the far-reaching changes embodied in the discussion document.
- 5.5 Cross cutting themes in the responses include:
- Calls for more detail about how the vision and outcomes will be achieved.
 - Praise for the far-reaching scope of the strategy which extends across sectors and arms of government.
 - Identification of connections between outcomes and in some cases, overlaps.
 - Suggestions that some outcomes be given greater priority.
 - Gaps in outcomes and/or calls for the separation of issues grouped under one outcome, particularly landscape and marine issues.
 - Perceptions of conflict, in some cases, between outcomes.
 - Suggested changes to language to bring more clarity.

- Consideration of implications under various themes, for example impacts for those in rural/urban areas, different socio-economic groups, and sectors of the economy.
- Appeals for the government to consider the scope for changes to procurement, legislation and ways of working in the public sector to support the achievement of Scotland's vision and outcomes.

5.6 The list below summarises key aspects of the discussion about outcomes highlighted in this report:

- Calls for greater specificity in Outcome 1 and a change to the global temperature ambition to no more than 1.5 degrees.
- Repeat mention of a wish to incorporate circular economy approaches within Outcome 2.
- A call to embed the principle of restoration within Outcome 3 and commit to the establishment of a National Ecological Network.
- Within Outcome 4, a definition of quality and broader reference to water than implied by 'sea'.
- More clarity within Outcome 5 about how to achieve access with particular consideration of social inequalities, plus greater reference to beneficial health and wellbeing implications.
- More detail about what is envisaged by Outcome 6.

5.7 Another key message from respondents was their sense of urgency about the change needed. Several stressed the importance of action and clarification, expressing demand for a strong national response to key challenges highlighted in the document, such as Brexit and climate adaptation.

5.8 Linked to this, there was a strand of commentary about the unique nature of environmental policy, recognising that Scotland's ambitions cannot be achieved in isolation. The interdependent global nature of environmental issues was highlighted. Recognition of this within the strategy was frequently praised; some called for the Scottish Government to do more in using the strategy as a positioning document, particularly with regard to the United Nations and European Union.

5.9 Respondents highlighted the shifts incumbent on government and public sector agencies, businesses, the third sector and individuals to achieve better outcomes for the environment and the health and wellbeing of citizens in the short, medium and long term. The examples and evidence shared in responses reveal a multitude of existing assets for policy makers to build upon, and many suggested additional opportunities to stimulate changed behaviours.

5.10 The observation that some material within the discussion document had been overlooked by some participants points to the challenges of communicating and delivering a complex, far reaching strategy that meets the needs of everyone. Readers of the final strategy might benefit from signposting as to what a vision statement or outcome include and why some aspects sit elsewhere, if relevant.

Appendix 1: Knowledge Accounts – Detailed Summary of Responses

Air Quality

Overview

A1.1 Twenty-four respondents made comments on this specific Knowledge Account. This group comprised, 10 environmental bodies, 4 membership organisations and 6 public sector or local authorities, 2 individuals, 1 business and 1 environmental research group.

A1.2 Overall the comments were supportive of the aim of achieving ‘the best air quality in Europe’, though some respondents called for more specific detail and/or evidence about how to assess any changes or establish the current position in relation to targets. Participants shared additional examples that could be included under evidence and current initiatives, for example *‘this should include the role of active and sustainable travel on tackling emissions. Encouraging more people to walk and cycle... improves health’ [Paths for All]*.

Comments on themes, title and introduction

A1.3 A few of the respondents who commented on this Knowledge Account asked for the *communication* of a stronger sense of urgency about the extent of change required. One cited important commitments in the Cleaner Air for Scotland strategy that were referenced in the draft discussion paper but not mentioned in the Knowledge Account.

A1.4 Some respondents suggested additions to the scope and content of this document:

- One respondent suggested including other environmental matters that have impacts on human health and well-being, citing noise and light pollution as examples.
- Another highlighted that some of the figures relate to the UK, not Scotland: they suggested a qualifier or explanation would be helpful if Scottish figures are not available.
- One suggested that the ‘past drivers’ section of the schematic bears little relation to the content of the equivalent section of the text.
- A few respondents felt there was not enough emphasis, detail or information on rural air quality.
- It was also suggested that specific statistics and information to explain the harm to health of air pollution would be helpful.

A1.5 One respondent suggested that less jargon would make this document more accessible and meaningful to ordinary people, but did not give any examples of language they found challenging.

Past Drivers

A1.6 A few respondents commented on past drivers:

- Local authority respondents mentioned concerns about biomass and in particular, the rising popularity of domestic wood-burning stoves, which are currently unregulated.
- One suggested the consequences of increased NOx emissions are ongoing, noting this should not be viewed as a historic issue.

Future Drivers

A1.7 A few expressed concerns about the post-Brexit legislative landscape. For example, according to one respondent, concentrations of some pollutants have diminished due to reductions of animals kept on land. The respondent suggested that this may change due to economic changes, Brexit and the desire to produce more food locally to reduce 'carbon miles' from transport activities.

A1.8 Around a third of those commenting on future drivers reflected on the importance of mitigation, such as green infrastructure in built environment design and in placemaking. Some suggested the Knowledge Account could make more of these mitigating actions to expand beyond the current focus on emissions. Several urged for more mention of the role of planning policy in this context.

A1.9 Linked to this, there was mention of the importance of behavioural change with specific reference to transport as an important way of improving air quality in Scotland. One respondent commented on Low Emission Zones and plans to phase out new petrol and diesel cars/vans by 2032, noting they would like to see traffic modelling linked more closely to air quality modelling in order to predict more exactly the changes in travel habits.

Current interventions

A1.10 Additional interventions mentioned by respondents included vehicle modifications, transport initiatives, licensing, incentivisation and monitoring particulate matter.

Evidence

A1.11 Suggestions of other evidence to incorporate within in the Air Quality Knowledge Account included:

- Understanding of the links and impacts of air quality to land, vegetation, soil and water environments.
- Quantifying and valuing (in £) the contribution of green infrastructure in cities to air quality.
- Rural air quality issues, such as moor burning, illegal incineration of plastics such as tyres on farms.
- Death rate associated with poor air quality.
- Indoor air quality.
- Dust from agriculture.

Business Resource Efficiency

Overview

A1.12 Eighteen respondents made comments on this Knowledge Account (7 environmental bodies, 3 individuals, 2 each of membership, public sector organisations and environmental research groups, 1 business and 1 local authority).

A1.13 Respondents supported the aim of achieving a transition to a circular economy and felt the issues covered in the Knowledge Account are relevant, for example Friends of the Earth commented that the Knowledge Accounts were *'generally well framed but needs to spell out more clearly a vision of what moving to a circular economy means in this sector and needs more emphasis on reducing consumption'*.

Comments on themes, title and introduction

A1.14 Several respondents asked for an expansion to this Knowledge Account to encompass:

- Reducing energy use or environmental footprint through reducing the need for travel and improving internet speeds in rural areas.
- Consideration of energy, water and other resource use.
- Measures to encourage sustainable packaging, shorten supply chains, and improve business resource efficiency generally.

Past Drivers

A1.15 A few respondents mentioned past drivers to include or emphasise. These included developments such as the National Waste Plan (2003), Zero Waste Plan (2010) and legislation relating to waste. Government support for initiatives to decrease waste were also highlighted, including efforts to reduce landfill, recycle textiles, decrease food waste and packaging and to encourage businesses to use resources more efficiently.

Future Drivers

A1.16 Many of those commenting on this Knowledge Account described additional future drivers to consider. An increased emphasis on waste prevention, as preferable to waste management, was a strong theme in their comments. Various suggestions about incentivisation, regulation and tougher legislative controls were made. These included levies on fast food packaging, requiring food businesses to use compostable packaging and removing the rural exemption for business food waste.

A1.17 Several highlighted the need for long-term, long lasting approaches to product design and to encourage repairs rather than replacements. One suggested that consumer protection legislation could have a role to play in addressing this.

A1.18 A small number of respondents highlighted the role of government in bringing about change. There were comments on promoting, incentivising and regulation related to sustainable packaging, supply chains and other business practices linked to waste reduction. There were also calls for investment in clean technology, sustainable procurement approaches and consumer education/awareness.

A1.19 Two respondents commented on the built environment as a driver for change. One focused on repurposing historical buildings, the other highlighted the design of new/existing business environments noting the value of distributed working, whole system approaches to energy, heat and data in neighbourhoods, sustainable and local building materials and off-site construction.

A1.20 One individual respondent commented on littering by businesses, focusing on take-away businesses' contribution to this issue.

A1.21 An individual urged for greater prominence of biodegradable waste materials, the impact of 2014 Business Regulations on separating waste, and the forthcoming Landfill Ban.

Current interventions

A1.22 Suggestions of other current interventions to reference in the Knowledge Account include Resource Efficiency Pledges, The CE Business Support Service, Revolve (a re-use quality standard for shops that sell second hand products), the Product Sustainability Forum and the Courtauld Commitment 2025 (C2025) voluntary agreement for grocery products.

Evidence

A1.23 Some respondents noted potential additions to include within the evidence base referenced in the Knowledge Account. These include food waste data for sectors beyond the retail grocery sector and information on materials flows. One suggested information on the market share of refurbished and remanufactured goods and an understanding of trends and barriers would be a useful addition. Another pointed out that some waste streams enter the environment as pollution (e.g. agro-chemicals such as pesticides and nitrogen) and that evidence on this these should be included.

Ecosystems and Wildlife

Overview

A1.24 Thirty-seven respondents made comments on this Knowledge Account (14 environmental bodies, 6 membership organisations, 5 individuals, 4 environmental research groups, 3 businesses, 3 public sector organisations and 2 local authorities).

A1.25 Several respondents noted interconnections between the Ecosystems and Wildlife and Natural Capital Knowledge Accounts. Some would like this Knowledge Account to have a broader, more inclusive 'whole ecosystem' approach, for

example: more emphasis on climate change, marine environments, a recognition of the global and international links and commitments, more consideration of urban environments, caution not to focus emphasis on single species or habitat/site management, recognition of the role that ecosystems can provide in mitigating climate change and CO2 emissions, and the importance of land use balance and diversity.

Comments on themes, title and introduction

A1.26 There were calls from around half of the respondents for an integrated approach to ecosystem evaluation, to bring together the different threads of an environmental strategy. Additional themes or topics that respondents would like included in the Knowledge Account include:

- Species restoration.
- Importance of pollinators.
- Contribution of peatland habitats.
- Role of the built and urban environments.
- Sporting management impacts.

A1.27 Three participants commented on woodland and forestry activity, highlighting benefits for ecosystem and wildlife, and others that forest management approaches have a contribution to make to issues such as biodiversity, soil and water protection and deer management.

A1.28 Two participants responded to the mention of raptor persecution with differing views: one respondent stating it needs more prominence, another arguing for a more species-specific and evidence-based approach to the threat.

A1.29 One organisation queried the clarity of the link between a healthy ecosystem and the ability to extract minerals.

Past Drivers

A1.30 A few respondents described other past drivers to include within this Knowledge Account, namely:

- Wildlife crime.
- Light pollution, noise and disturbance.
- Pollution of the marine environment and plastics entering terrestrial and marine ecosystems and the food chain.
- Poor integration of flood relief policy and projects with biodiversity and other environmental objectives.
- Onshore and offshore windfarms.
- Erosion of the green belt.
- International legal obligations.

Future Drivers

A1.31 A small number of respondents mentioned issues to incorporate within the future drivers section, as follows:

- Invasive species, pests and diseases.
- Upland and offshore windfarm developments.
- Forest and woodland expansion.
- Light pollution changes resulting from new technology/expansion of urban, rural and marine development.
- The (re)introduction of species/natural predators.
- Changing attitudes for example towards land management, wildlife crime and permaculture.
- Flood management approaches and water abstraction from rivers.
- Habitat fragmentation/degradation.
- Biodiversity Route Map to 2020.
- Climate Change Plan.
- Changing vessel use and patterns affecting marine environments.

Current interventions

A1.32 Participants provided some examples of current interventions or initiatives of relevance to this Knowledge Account. These included wildlife crime investigations, species re-introductions, conservation activities, Biodiversity Action Plans, marine conservation, the Wildlife Estates Scotland initiative and habitat connectivity approaches.

A1.33 A public sector organisation highlighted the role of FSC forest management certification⁸ in protection and management of habitats and species, whilst an individual questioned the 'scientific' underpinning of the Forestry Grant Scheme, suggesting that forestry proposals can threaten ecological value.

Evidence

A1.34 Some respondents noted potential additions to include within the evidence base referenced in the Knowledge Account. These included:

- Agreed baseline information; current indices of status and performance; and State of Nature reports.
- Research on impacts of alternative farming approaches (e.g. permaculture, organic farming) and sporting management (including current review of grouse moor management).
- Impacts of green corridor/habitat network approaches, loss of protected sites, local planning policies, windfarm developments, natural predators and rewilding projects.
- The monetary value to society and the economy of healthy, functioning ecosystems.
- Baseline information on groundwater resources, soil health, peatlands and invasive species.

⁸ <https://www.fsc-uk.org/en-uk/business-area/fsc-certificate-types/forest-management-fm-certification>

- Biodiversity and environmental net gain figures.
- Resilience to environmental change and thresholds for different ecosystems.

A1.35 An organisation within the public sector suggested that enabling more ‘landscape scale’ projects would help improve the broader evidence base and fill knowledge gaps beyond designated sites. One environmental body pointed out that there has been considerable work done on the Central Scotland Green Network habitat targets to 2025 and to 2050, and that those were not fully reflected in the Knowledge Account.

Household Resource Efficiency

Overview

A1.36 Fifteen respondents made comments on this Knowledge Account. This group comprised 8 environmental bodies, 2 environmental research groups, 2 local authorities and 1 response each from the following groups: membership organisations, individuals and public sector organisations. No businesses commented on this Knowledge Account.

A1.37 Whilst several respondents welcomed the information in this Knowledge Account, some suggested it could be expanded to encompass consumption patterns and producers’ responsibilities; ‘we strongly recommend that reduced consumption rather than increased efficiency is the top line for these knowledge accounts’ [Scottish Environment LINK]. One participant highlighted the interconnections between this Knowledge Account and the Business Resource Efficiency Knowledge Account, suggesting that there may be value in merging the two documents.

Comments on themes, title and introduction

A1.38 In comments on this Knowledge Account some participants called for an expansion of the content to include biodegradability, greater reference to circular economy objectives, reduced consumption, design for longevity and public attitudes to resource use.

A1.39 Some respondents described additional household resources to include, for instance, energy and sewage effluence, noting the contribution to pollution by microplastics, pharmaceuticals and persistent organic pollutants.

Past Drivers

A1.40 A few respondents noted this section focuses largely on recycling and suggested it could be expanded to include waste prevention; one mentioned consumer confusion over best before dates as a historic driver of food waste.

A1.41 Other suggestions of past drivers to incorporate include the carrier bag charge and the Waste (Scotland) Regulations 2012, the Household Recycling Charter and designed product obsolescence.

A1.42 One respondent suggested it would be more accurate to use the term 'recyclable plastic' instead of 'single use plastic' where this is the case. Others noted that confusion over which plastics can and cannot be recycled is an important driver.

A1.43 One public sector organisation suggested that the influence of landfill tax is largely on local authorities, rather than on households or manufacturers and packaging companies.

Future Drivers

A1.44 Drivers for and barriers to recycling were also seen by respondents as important considerations in relation to household efficiency in the future. Potential expansions to this section include: legislation to enforce separation of household waste; incentives to improve capacity for waste management/recycling in Scotland; a single or coordinated collection infrastructure; measures to improve capacity for the Landfill Ban in Scotland; and exertion of financial pressure on households to separate waste.

A1.45 Other suggested drivers to reducing waste include: incentivising sustainable packaging; the Zero Waste Plan, including the imminent ban on biodegradable municipal waste; deposit/return schemes; charges for waste produced; extended producer responsibility; and recent public awareness/concern about plastic waste pollution.

Current interventions

A1.46 Additional initiatives highlighted by respondents included FSC certification on timber and paper/card/packaging and Revolve (an accreditation scheme for reuse shops). One respondent described interventions to achieve behavioural change that could be mentioned: for example the Recycle for Scotland and Love Food Hate Waste campaigns, and the Zero Waste Towns Initiatives.

Evidence

A1.47 A few respondents reflected that the evidence in this Knowledge Account currently focuses on waste. They suggested other relevant additions, such as information on market share of/trends/barriers for refurbished and remanufactured goods, along with a carbon footprint of material consumption.

A1.48 There were also suggestions about ways to expand the evidence on waste to include:

- The overall cost of waste and recycling (collection and disposal) to local authorities.
- Knowledge of what works in behaviour change efforts (e.g. differential impacts of interventions across households, or the persistence of change over time).

- Information on non-carbon impacts, food waste reduction and the extent to which landfill reduction has been achieved through recycling/prevention as opposed to incineration.
- Testing of approaches to education, awareness raising and incentivisation.

A1.49 Some of the evidence was perceived by a few respondents as less relevant to households: for example, research into land-spreading impacts and options for food and drink supply chains.

Natural Capital

Overview

A1.50 Twenty-five respondents made comments on this Knowledge Account. The group comprised 10 environmental bodies, 4 membership organisations, 4 businesses, 3 public sector organisations, 2 local authorities, 1 environmental research group and 1 individual.

A1.51 Whilst most were supportive of the recognition that the natural environment is important to Scotland's prosperity, there was some perceived and potentially confusing overlap with both the Ecosystems and Wildlife, and the Value the Environment Knowledge Accounts with 'duplication' of information on trends and drivers. 'Consideration could be given as to whether this needs to be separate to or form part of the ecosystems and wildlife / other accounts' [Aberdeen City Council].

Comments on themes, title and introduction

A1.52 Several respondents noted opportunities to expand this Knowledge Account. There were suggestions it could be broadened to encompass blue carbon/marine resources and the protection of biodiversity/ecosystems in the wider environment, and not just focused on rural or countryside environments.

A1.53 One environmental body pointed out that biodiversity loss often involves widespread bird and insect species that cannot be effectively conserved solely on protected areas.

A1.54 A membership organisation asked for the focus of the Knowledge Account to be widened to include social, environmental and cultural benefits of Natural Capital. This organisation would also like to see reference to the importance of Natural Capital in reducing flood risk in the context of recent changes to flood risk management in Scotland, and to the Scottish Land Use Strategy. Another pointed out that land uses such as aquaculture, urban development and mineral extraction impact on Natural Capital. A business noted that the Natural Capital benefits arising from the fulfilment of draft outcome 1 should be considered.

Past Drivers

A1.55 There were few comments on past drivers. Most reflections on factors that influence Natural Capital focused on ongoing, or future concerns. An environmental body commented on the state of flux between areas, for example woodland and grassland. Another called for references to the impact of reductions in maintenance and use of greenspace. One participant observed that this section discusses influences rather than drivers of change.

Future Drivers

A1.56 Some respondents identified links between this Knowledge Account and a number of the other Knowledge Accounts. Examples include the ambition to create a circular economy, and people's attitudes towards the environment.

A1.57 Other suggested future drivers to incorporate within this section include: tourism, the successful food and drink sector, and a wider range of land uses (such as aquaculture, urban development and mineral extraction). Participants also mentioned a desire for a more bottom-up approach to national scale Natural Capital measures, local agri-environment schemes, incorporation of 'Net Biodiversity Gain' into planning legislation, use of a Natural Capital Protocol tool for business, public concern around marine litter, inclusive Natural Capital Accounting approaches, government support/regulation and changing attitudes in business.

A1.58 An environmental research group expressed a view that a more holistic approach is required to managing Natural Capital. They felt the Knowledge Account could 'recognise the opportunity for more alignment, or even integration, in policy delivery' so as to avoid some of the current trade-offs, such as planting to maximise carbon sequestration versus planting to maximise habitat outcomes. Another respondent mentioned the need for more collective action at the scale of landscape or catchment.

Current interventions

A1.59 Suggested additions to the current interventions and initiatives include: the Central Scotland Green Network, work on the Natural Capital Protocol, the Land Use Strategy and its focus on ecosystem services, Historic Environmental Scotland's work on climate risk and on developing a baseline and indicators that would incorporate the historic environment in Natural Capital Accounting.

Evidence

A1.60 Some respondents noted potential additions to include within the evidence base referenced in this Knowledge Account. These included:

- More substantial evidence on net CO₂ absorption across woodland types and planting/harvesting cycles.
- Better/more independent evidence on impacts of agri-environment schemes.

- Evidence on the quality of natural landscapes, such as the flow country and peatlands.
- A simple Public Risk Register devised from Climate Change Risk Assessment reports.
- Evidence on loss/damage to peatlands.
- More consistent information across ecosystem and habitat types.
- Evidence on the contribution of green infrastructure.
- The Natural Capital Asset Index.

Quality Green Space

Overview

A1.61 Twenty-eight respondents made comments on this Knowledge Account. This comprised 12 environmental bodies, 5 environmental research groups, 3 authorities, 3 membership organisations, 3 public sector organisations, 1 business and 1 individual. Responses to this Knowledge Account were detailed and are necessarily summarised here.

A1.62 Respondents were generally supportive of the recognition of the human health and wellbeing benefits of quality green spaces in this Knowledge Account: 'we can see clearly the importance of attractive outdoor spaces for managing the effects of climate change on wellbeing' [The R&A]. Responses also highlighted that this should be balanced with biodiversity and conservation principles.

A1.63 There were some comments about the definition and terminology used: one membership organisation thought 'outdoors' was not the most appropriate word to describe nature or greenspace; another membership organisation suggested that greenspace is about more than nature and encompasses benefits linked to active travel, recreation, energy generation, climate mitigation and adaptation, community and cultural activity.

A1.64 An environmental body suggested that the generally used definition of greenspace covers 'all vegetated land and water in the urban environment' and would not include farmland, hills, etc. Another environmental body was concerned that the lack of a clear definition and combination of several concepts resulted in some lack of clarity in this Knowledge Account; and another would like clarity on whether this Knowledge Account includes coasts in its scope.

Comments on themes, title and introduction

A1.65 There were many detailed comments on the scope of this Knowledge Account.

A1.66 Environmental bodies called for: a more explicit link to local indicators, such as litter and dog fouling; a greater understanding of the reasons why people want to use greenspace; more on green infrastructure in towns and cities, such as green roofs, walls, bridges and raingardens; clearer separation of concepts like impacts of deprivation, access, satisfaction, etc.; more on impacts of litter and

plastic pollution; more on the habitat-linking benefits for wildlife; and more on the health and wellbeing benefits for people.

A1.67 Environmental research groups commented on: lack of mention of the environmental quality of greenspace; a need to acknowledge the importance of green space in transport infrastructure; more on the links to human health, wellbeing and connectedness, and to children's healthy development; and the importance of greenspaces for combatting the effects of climate change, for example providing shade to mitigate the urban heat island effect.

A1.68 Local authorities called for recognition that rural communities are often poorly serviced by green space, rural path networks are often under-funded, that Rights of Way are not monitored or maintained, and sometimes not easily identified or accessed.

A1.69 One individual called for more emphasis on access, public and green transport needs, walking, buses, funding for local initiatives and integration of 'nature activities' in the curriculum.

A1.70 A public sector organisation suggested a broadening of the scope of this Knowledge Account to include place-making more broadly/holistically, such as built and historic aspects of greenspace.

Past Drivers

A1.71 Respondents noted the following additional past drivers:

-
- Reduction in local authority budgets for parks and greenspace.
- Requirement in planning policy for local authorities to prepare open space audits and strategies.
- Loss of greenspace to development.
- Reduction in quality of greenspace, including maintenance standards.
- Fragmentation of greenspace.
- Incomplete replacement of greenspace losses.

Future Drivers

A1.72 Respondents also proposed potential additional future drivers for consideration:

- Further reductions to public sector budgets.
- Changes to the planning system including a concern that current revisions do not address needs/challenges.
- Community Empowerment Act and community ownership/management models.
- Climate change – with a suggestion to introduce a broader emphasis on this driver in the Knowledge Account, including the role of green space/infrastructure in generating energy and mitigating weather extremes.

- Opportunities to improve greenspace quality, develop green networks, improve habitat connectivity as well as challenges of growing demand for housing.
- Social prescribing, health benefits of greenspace and potential savings to the NHS.
- Rising interest in growing food/growing spaces and requirements on local authorities to safeguard and provide under the Community Empowerment (Scotland) Act 2015.
- Natural flood management initiatives.
- A roll out of the Central Scotland Green Network to other city regions.
- Better network of active travel routes and recreational routes.
- National and local development plans.
- The European Landscape Charter.

Current interventions

A1.73 A local authority highlighted the role of Countryside Ranger Services, and an environmental body suggested referencing the work of Greenspace Scotland, Scottish Wildlife Trust's Living Landscape projects and Glasgow City Council's 'Connecting Nature' initiative.

A1.74 A local authority suggested information on Open Space Audits and use of alternative locations for greenspace including green roofs, walls, roof-top gardens etc. could be perhaps be included.

Evidence

A1.75 Some respondents suggested additions to the evidence base referenced in this Knowledge Account. These included:

- More and better use of evidence collected at local level, such as that which shapes Locality Improvement Plans.
- Data that demonstrates the strength of health and wellbeing benefits emanating from greenspace.
- Data on the environmental quality of greenspaces.

A1.76 Respondents, in particular environmental research groups, highlighted ways to address some of the evidence gaps identified in the Knowledge Account and approaches to developing a consistent measure of the quality of green spaces. These include:

- A growing body of scientific/academic evidence around the impacts of nature-based health interventions.
- A project is being undertaken to develop an urban green space valuation toolkit.
- Use of the Natural Capital Standard for Green Infrastructure for valuing greenspaces.
- A study on "The Health Impacts of the John Muir Award".
- World Health Organisation (2016) Urban Greenspaces and Health.

- A growing body of research on the microbiome and on relationships between the natural environment and healthy (or otherwise) development of the immune system.

A1.77 Another environmental research group noted that it holds regional data and expertise relevant to understanding spatial links between environmental quality and deprivation and health indices and how natural environments can contribute to improved health outcomes.

Value the Environment

Overview

A1.78 Twenty-seven respondents made comment on this Knowledge Account. The group comprised 12 environmental bodies, 4 environmental research groups, 3 membership organisations, 3 public sector organisations, 2 local authorities and an individual.

A1.79 A variety of views about the Knowledge Account were expressed. Overall the feedback was positive: for example, Scottish Wildlife Trust commented that they were *'impressed with the inclusion of multiple systems of valuation; subjective, medical, economic etc.'* Some participants identified opportunities to add strength and depth to the Knowledge Account, suggestions included revisions to the title, scope and definition. More than one participant suggested that this Knowledge Account embodies the entire strategy and could be given greater prominence, or that other Knowledge Accounts could feed into it.

Comments on themes, title and introduction

A1.80 A few respondents suggested the title 'Value the Environment' might cause confusion, with the word 'value' having a monetary connotation. To address this:

- A small number suggested that the title be revised to make it clear that the focus of this Knowledge Account is on people's attitudes and behaviours.
- Others suggested changes to the introduction:
 - Clarify that valuing the environment in terms of its economic contribution is covered in Natural Capital.
 - A clear statement of why it is important that our environment is valued.

A1.81 A small number of respondents suggested that the introduction could be enhanced by identifying different stakeholders. Their comments centred on distinctions between valuing the environment in relation to its impact on wellbeing (the way in which members of the public typically frame their value and use of the environment); and valuing the environment as a resource, for example, the use, ownership or management of natural assets by businesses.

A1.82 In comments about the values, attitude and behaviour of specific groups, some highlighted equalities issues and other differences within and across society, suggesting that these could be reflected in the Knowledge Account. For example, one person quoted a report which observed that the value of parks and greenspaces was higher for individuals from lower socio-economic groups and BME backgrounds. They felt this level of detail was important when thinking about future drivers and assessing evidence gaps.

A1.83 Several respondents expressed a perception that there is an overlap between this Knowledge Account and the Natural Capital Knowledge Account. Links to other Knowledge Accounts were also highlighted, for example one respondent felt that the scope of 'Value the Environment' is focused on physical landscape and suggested wildlife should be included. Other suggested changes to the title included 'value the *natural* environment' and 'perceptions of the environment'.

Past Drivers

A1.84 In their comments many participants reflected on historic factors that made both positive and negative contributions to the way that people value the environment in Scotland. Positive themes included increased tourism and leisure trends and the introduction of renewable energy. Those who highlighted negative issues typically mentioned degradation of natural places, describing these as a result of focus on economic growth over environmental sustainability, insensitive design and planning, land management issues, and a loss of historic environment and cultural landscapes as a result of climate change and land development.

Future Drivers

A1.85 Many respondents took the opportunity to reflect on factors that underpin changes in individuals' behaviours and attitudes. In comments they highlighted the potential contribution of incentives, learning and knowledge dissemination, and citizens feeling the impacts of changes to the environment, particularly climate change.

A1.86 Others took a broader consideration of future drivers, mentioning the role of developments in renewable energy, tourism, a greater national focus on cultural heritage, forestry policy, land management policy and changes to land, maintenance and management budgets.

Current interventions

A1.87 Some respondents asked for more detail about the initiatives highlighted in relation to valuing the environment.

A1.88 A range of additional examples for inclusion in the list of current initiatives was put forward. These largely focused on the contribution of the third sector and

included: TCV's Green Gym⁹, THRIVE¹⁰, Trellis Scotland¹¹ and New Caledonian Woodlands.¹²

Evidence

A1.89 The Scottish Government was signposted to a range of reports, data sets, projects and programmes that respondents felt could make a valuable contribution to the evidence base. These included:

- Data about people's use of the environment and its impact upon them.
- Evidence about changes to landscape.
- Research on people's attitudes about the environment.
- The findings of specific research conducted or commissioned by organisations that are responsible for the management of natural assets, or those which bring people into greater contact with nature.
- Reports about embedding environmental issues into planning processes.

Access to nature

Overview

A1.90 Twenty-seven respondents made comments on this Knowledge Account. This group comprised 11 environmental bodies, 5 membership organisations, 4 environmental research groups, 3 individuals, 2 local authorities and 2 public sector organisations. No businesses commented on this Knowledge Account.

A1.91 Overall there was support for this Knowledge Account, with one respondent commenting that *'we agree that this outcome should be a focus of the Environment Strategy as the enjoyment of nature has far reaching positive effects for society' [WSP]*. Whilst noting the importance of this topic and stating support for the aims articulated, several respondents highlighted interconnections with other Knowledge Accounts, particularly Quality Green Space.

Comments on themes, title and introduction

A1.92 For some environmental bodies and public sector organisations, the scope of 'nature' could be broadened in this Knowledge Account: they called for it to be widened beyond recreation to include education, biodiversity, active travel and wildlife-watching.

A1.93 Two environmental bodies and one local authority suggested it is important to balance access with preservation, for example through sustainable tourism. A membership organisation urged for more coverage of transport, travel and access

⁹ <https://www.tcv.org.uk/greengym>

¹⁰ <https://www.thrive.org.uk/>

¹¹ <https://trellisscotland.org.uk>

¹² <https://newcaledonianwoodlands.org/>

issues in all the Knowledge Accounts. Another noted a gap in the coverage of nature reserves or biosphere reserves.

A1.94 An individual respondent called for more mention of design that incorporates nature in built environments. They also suggested that the Knowledge Account could have greater mention of the benefits of nature in built environments, for example in relation to mitigating impacts of climate change, particularly shade and mitigating flooding.

A1.95 One local authority respondent mentioned the importance of recognising that in rural areas greenspace provision can be poor, and access can be difficult due to underfunding and limited map information for path networks and Rights of Way.

Past Drivers

A1.96 A few respondents mentioned past drivers: one local authority commented that perceived safety has been a barrier to access in the past and can be addressed through design and education.

Future Drivers

A1.97 Respondents identified a number of additional future drivers to include in this Knowledge Account:

- The role of placemaking/design, where principles of access to greenspace and active travel are embedded.
- Use of tools like the “Place Standard” to help create sustainable places.
- The influence of childhood experiences of nature towards behaviour in adulthood.
- Forestry Commission Scotland's role and initiatives like Woods In and Around Towns.
- Public perceptions of the value of natural environment.
- Improved understanding of health and wellbeing benefits.
- Outdoor exercise ‘prescriptions’ by GPs.
- Requirement of Community Empowerment (Scotland) Act 2015 for local authorities to provide community growing spaces, especially in areas of deprivation.
- Expansion of outdoor nurseries as referenced in the Green Space Knowledge Account. Appendix 2: Vision - Additional Quotes

A sample of illustrative quotes that typify the responses in relation to the draft vision statement

“ *The Strategy should be seen as inspirational, will impact on Scottish Communities, and should be adopted locally, regionally and nationally to allow the maximum impact globally from Scotland’s activities. [Dumfries and Galloway Council]*

“ *We want to see a thriving sector that allows for our future built heritage to reflect Scotland’s natural stone materials and a sector that is able to support skilled manufacturing jobs and apprenticeships. [Scottish Stone Group]*

“ *Scotland has a huge amount of resources i.e. dairy, meat, crops including fruit, game, water, textiles, IT and commercial expertise, academic and arts and crafts excellence, whisky etc. Enough to accommodate all the needs of the 5 million Scottish people (or Scottish residents). Perhaps it would be a good start to sort out the infrastructure and businesses which can support the Scottish residents first. [Christie Environmental Consultant]*

Appendix 3: Outcomes - Additional Quotes

A sample of illustrative quotes that typify the responses in relation to Outcome 1: We are a climate leader and play our full role in limiting global temperature rise to well below 2°C

“ *We support this ambition and outcome. This framing will enable connection to international policy initiatives. [National Trust for Scotland]*

“ *To ensure that Scotland is a climate leader, Outcome 1 should reflect the full aim of the Paris Agreement of ‘keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. [WWF Scotland]*

“ *The need for adapting to climate change should be explicitly included under draft outcome on climate. [Climate Ready Clyde]*

“ *Absolutely correct, but we must be aware that our influence globally is limited. The focus should be on putting our own house in order, not only for the benefit of the people living here but as an example for elsewhere. [Individual]*

“ *Nearly every large-scale decision that the Government takes goes against these outcomes; does nothing to create urban areas which put people ahead of cars; and continues to extract the maximum amount of oil possible, which is entirely incompatible with keeping temperatures below 2°C. [Chemical Industries Association]*

A sample of illustrative quotes that typify the responses in relation to Outcome 2: We are a zero waste, resource efficient nation

- “ *SLE supports the principles of the Scottish Government’s Zero Waste Strategy and the drive towards an environmentally sustainable Scotland where waste use is minimised. The vision for a ‘zero waste, resource efficient’ Scotland is an ambitious one and will require significant change in the way we approach the management of our waste. [Scottish Land and Estates]*
- “ *Agree. This should address use of resources/raw materials at source aligning with the waste hierarchy and avoiding waste. Developing a circular economy - and not just resource efficiency through recycling. It also requires more efforts with the public and businesses; raising awareness and providing adequate facilities. [Aberdeen City Council]*
- “ *NHC and its members are closely aligned with the Scottish Government. All bottled water producers want to see all their bottles, once used, collected and recycled into new bottles. This is to not only provide the much-needed high quality glass and recycled PET (rPET) material to turn into new bottles, but because none of our member companies wants to see their product go to waste or its packaging end up littered in the environment. [National Hydration Council]*
- “ *Going in right direction. However, the carrot approach is not achieving targets and the stick is needed. SEPA need to be strengthened and non-compliance simply stopped. [BioBags Scotland]*

**A sample of illustrative quotes that typify the responses to Outcome 3:
Our biodiversity is protected and enhanced, supporting healthy ecosystems**

“ *Protection of biodiversity, particularly against a background of developments which have the potential to increase between-species interactions (such as increased predation at weirs, arising from fish movement being delayed), can be challenging. A clear policy for the management of such interactions between protected species will be necessary.* [Fisheries Management Scotland]

“ *The objective to ensure not only protection of our biodiversity, but also its enhancement, is welcome. The reference to healthy ecosystems is supported; it raises the importance of continued ecosystem function and resilience, delivering vital ecosystem services to the people of Scotland in addition to protecting biodiversity.* [WSP]

“ *In considering resource efficiencies, biodiversity and one planet prosperity we must never forget the public health dimension. Keep Scotland Beautiful recently reported that 1 million people in Scotland live on filthy streets.* [Aberdeenshire Environmental Forum]

“ *Soil Association Scotland agrees that the above outcomes would help achieve this vision, however a crucial element is missing from the outcome ‘Our biodiversity is protected and enhanced, supporting healthy ecosystems’. We believe that this should read: ‘Our biodiversity should be restored, protected and enhanced, supporting healthy ecosystems.’ There needs to be greater support for organic agriculture, agroecological practices, and High Nature Value Farming across Scotland in order to achieve this outcome.* [Soil Association Scotland]

**A sample of illustrative quotes that typify the responses to Outcome 4:
Our air, freshwater, seas and soils are of excellent quality**

“ Objectives 3 (biodiversity etc.) and 4 (air, water, etc.) separate items which are closely related. For example, healthy soil and freshwater systems depend on functioning biodiversity. Scotland has good environmental condition compared to many other countries. Benefits are accruing from cross-sectoral ways of operating, and progressive regulation with tiered baseline good practice and measures. [James Hutton Institute]

“ ‘Excellent quality’ remains undefined, making the outcome challenging to measure. Supporting information would be helpful to define ‘excellent quality’ and clarify how it will be measured and monitored. Water scarcity (i.e. through a changing climate) is not acknowledged. This will also have a knock-on effect to nature, people and businesses. Waste water is also not mentioned. [Aberdeen City Council]

“ Care must be taken when seeking to protect the environment that actions do not result in unintended consequences. For example, the full impact of switching to alternative materials would need to be assessed carefully to take into account how this might affect CO₂ emissions and the recycling process, for example. [Natural Hydration Council]

“ Should be but this is not the case, especially air quality in our cities - it's amongst the worst in the Western world - are we facing up to this reality? [Individual]

**A sample of illustrative quotes that typify the responses to Outcome 5:
Everyone can access, enjoy and connect with nature**

“ We’d encourage the Strategy to acknowledge the growing scientific consensus on the physical and mental health and wellbeing benefits of access to nature. Nevertheless, the Strategy also needs to consider the sustainability of the tourism sector – for this reason, we need to invest in creating and enhancing natural areas, such as through the National Ecological Network, so that access to nature can be better localised and to reduce the congestion effects that impact on this public good. [Scottish Wildlife Trust]

“ We would welcome the widening or rewording of this outcome to include the education and awareness that is required to encourage more people to engage and connect with nature and understand how and why it is important to take responsible access to the outdoors and care for our precious environment. [Scottish Land and Estates]

“ The conflicts between the access, connection and enjoying nature – including tourism - needs to be addressed in a way that biodiversity is protected, and our natural areas are not further deteriorated. Consideration should be given to including specific reference to valuing nature also, not just for human benefit (as this outcome currently suggests) but for its intrinsic value also. [Aberdeen City Council]

**A sample of illustrative quotes that typify responses to Outcome 6:
The global footprint of our consumption and production is sustainable**

“ There is no alternative as, at current rates of consumption, those resources will end. [Individual]

“ Clearly signals that the strategy is whole-of-government and that it is international as well as domestically focused. [IEMA]

“ We support the Scottish Environment Strategy taking a global perspective in Objective 6. It sets out a further leadership role that Scotland can take. [James Hutton Institute]

“ Although generalised, this outcome is vital to achieve “One Planet Prosperity”, due to its integrated relationship with the other outcomes. [WSP]

“ natural environment directly supports the productivity of our farming industry. Considering this, we welcome the focus the discussion paper puts on managing the consequences of Brexit. [Crown Estate Scotland]

Appendix 4: Knowledge Accounts - Additional Quotes

A sample of illustrative quotes that typify the themes identified in responses to the Knowledge Account: Air Quality

“ We consider that following the UK’s withdrawal from the EU, it is important that there is an effective body in place to ensure that air quality targets are met, in particular the requirements of the Directive on Ambient Air Quality and Cleaner Air for Europe. [Law Society of Scotland]

“ the Air Quality Position Statement needs to provide a clearer picture of where we are now, i.e. specific information on what the levels of pollutants mean in relation to targets. Where we want to get to is also very vague. [Transition Edinburgh]

“ Behaviour change programmes are a vital component that need run in parallel to support the development of new infrastructure. [Paths for All]

“ The air quality knowledge account does not cite planning as one the tools available for driving change, instead focusing on technological transformation. [RTPI Scotland]

“ While the focus on reducing emissions is understandable, we would suggest that this account also needs to address action to mitigate the effects of air pollution where it is occurring – green infrastructure (street trees, green walls etc.) has a role to play in such mitigation particularly in the lead up to some of the reduction measures taking effect. [Central Scotland Green Network Trust]

A sample of illustrative quotes that typify the themes identified in responses to the Knowledge Account: Business Resource Efficiency

“ To achieve a sustainable footprint for our production and consumption, we need to aim for reduced consumption of finite resources to sustainable levels. We strongly recommend that reduced consumption, rather than increased efficiency, is the top line for these knowledge accounts. [Scottish Environment LINK]

“ If you do not want a throwaway culture then goods/ products need to be better quality and built to last - laws and regulations can ensure this. Bring out more Consumer Protection laws that create a 'built to last' culture. [Individual]

A sample of illustrative quotes that typify the themes identified in responses to the Knowledge Account: Household Resource Efficiency

“ Overall, this knowledge account places almost all the responsibility on the consumer, rather than the producer – it's contrary to the pollution at source principle. [Scottish Wildlife Trust]

“ It would be useful to mention design for longevity as well as design for recycling/recovery. [Scottish Environment LINK]

A sample of illustrative quotes that typify the themes identified in responses to the Knowledge Account: Natural Capital

“ The focus only on natural capital may reflect the extent of policy investment in this form of green accounting, but it can be reasonably argued that this, on its own, fails to explain and draw together the various threads of a strategy for the environment. [Nautilus Consultants]

“ Scotland needs to bring its legislation and regulation, on all fronts, into line with the circular economy agenda to ensure that recycling, re-use and re-manufacturing are encouraged and enabled rather than hindered. [Chartered Institute of Wastes Management]

“ It is not sufficient to identify landscapes as an important asset in the environmental strategy narrative but to then assume they are properly valued by including very indirect assessment in the Value the Environment Knowledge Account - the only knowledge account to refer to landscapes. [John Muir Trust]

A sample of illustrative quotes that typify the themes identified in responses to the Knowledge Account: Ecosystems and Wildlife

- “ *Effort should be made to emphasise / re-emphasise that biodiversity and ecosystems are characteristics of the domestic and urban environments just as they are of rural and countryside areas. [Nautilus Consultants]*
- “ *The focus of the paper appears to be on special sites and species rather than reflecting the wider ecosystems approach which looks at the health of the ecosystem in general. [Law Society of Scotland]*
- “ *It is important that government and organisations implement whole lifecycle analysis and consider the total impact of potential solutions before making decisions. Factors such as CO₂ emissions, water usage and the impact on communities, as well as the impact on local, national and international ecosystems should all be considered.
This section largely ignores the marine environment.... The increase of aquaculture in Scotland over the last 40 years has had a significant impact on the marine ecosystem. [Natural Hydration Council]*

A sample of illustrative quotes that typify the themes identified in responses to the Knowledge Account: Quality Green Space

- “ *The reference to climate change in ‘future drivers’ is confusing since it focuses on river flows and drought and makes no explicit reference to greenspace. A focus on the impacts of warmer wetter winters, extreme weather events and increased flood risk would seem more sensible and would highlight the role of greenspace as green infrastructure. Well designed and located greenspace can reduce the impacts of increased temperature in urban areas in the summer months. Climate change is also likely to lead to an increase in the need for greenspace for recreational purposes. [Central Scotland Green Network Trust]*
- “ *While housing demand could increase pressure on greenspace, the integration of green infrastructure elements into new housing has the potential to increase the provision of quality greenspace. [Central Scotland Green Network Trust]*
- “ *Whilst there are gaps in relation to understanding the pathways linking urban greenspace to improved health and wellbeing, as currently drafted the infographic could give a misleading summary of the current state/status of greenspace and health research. [Greenspace Scotland]*

A sample of illustrative quotes that typify the themes identified in responses to the Knowledge Account: Value the Environment

“Value the environment” seems as though it should be an encompassing framing that includes all other areas presented. Ecosystems and wildlife should be considered more carefully in relation to the natural capital knowledge account, perhaps merged, to ensure appropriate synergy between competing aims (what appears to be a focus on biodiversity/nature for itself on the one hand and nature to be used on the other). All terms presented also need to be adequately defined. [Department for Social Responsibility and Sustainability, University of Edinburgh]

As part of valuing the environment, we believe it is important to track public understanding and respect for nature. With improvements in appreciation, the more people can contribute to local and national environment strategies. We feel there is considerable scope to develop suitable educational, vocational and public awareness programmes to deliver appreciation. [Game and Wildlife Conservation Trust]

A sample of illustrative quotes that typify the themes identified in responses to the Knowledge Account: Access to Nature

In this knowledge account the definition of nature is not accurate, as outdoor recreation areas can be barren of diversity. Nature should include plants, animals and natural physical features [The Chartered Institute of Ecology and Environmental Management]

Overall, we would encourage this knowledge account to acknowledge how ‘access’ as a public good is reduced as a public good by congestion effects, which risks reducing the ‘purity’ or ‘publicness’ of this ecosystem service. [Scottish Wildlife Trust]

There is only one mention of wildlife in this knowledge account. People access nature not just to walk their dog, go for walks, or to relax but also to observe and watch wildlife and discover new things. It is important that good quality habitat exists so that this can continue and that more people are encouraged to visit new sites to see wildlife. This can help encourage people to get involved with citizen science projects, the recording of species and learning new things [Buglife - The Invertebrate Conservation Trust]

Findings emerging from research show the need to go beyond considering outdoor recreation behaviour as simply an outcome of the balance between barriers and motivations. [James Hutton Institute]



Scottish Government
Riaghaltas na h-Alba
gov.scot

© Crown copyright 2019

OGL

This publication is licensed under the terms of the Open Government Licence v3.0 except where otherwise stated. To view this licence, visit nationalarchives.gov.uk/doc/open-government-licence/version/3 or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or email: psi@nationalarchives.gsi.gov.uk.

Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

This publication is available at www.gov.scot

Any enquiries regarding this publication should be sent to us at
The Scottish Government
St Andrew's House
Edinburgh
EH1 3DG

ISBN: 978-1-78781-588-9 (web only)

Published by The Scottish Government, February 2019

Produced for The Scottish Government by APS Group Scotland, 21 Tennant Street, Edinburgh EH6 5NA
PPDAS532906 (02/19)

W W W . G O V . S C O T