



The Discussion Paper is helpful for setting out the Government's position and overall aim, but we feel it lacks a clear strategic approach towards achieving this aim and does not specify any policy mechanisms and targets. This means there is little to hold the Government and its agencies to account over. **We need specific, legislated targets as part of the Environment Strategy to enable citizens to hold Government to account.** Scotland has already led the way in the UK in the Continuity Bill in preserving vital environmental principles. We need to build on this energy to enshrine specific, evidence-led targets into law.

We note and welcome the reference to the Land Use Strategy (p.3), but are concerned that, outside of this single, brief mention, there's no evidence of it being incorporated into and informing the direction of the Strategy. The Land Use Strategy was well received at the time for its forward-thinking and holistic approach to land management; [we strongly encourage](#)<sup>1</sup> not just its mention but active adoption and incorporation into environmental policy and decision making. The Trust was particularly impressed by the adoption of the Convention on Biological Diversity's definition of an ecosystems approach in [the Land Use Strategy](#)<sup>2</sup>: 'integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way.' The Trust would like to see this approach inform and flow through this draft Strategy.

The Trust places heavy emphasis on the vital role of biodiversity, and we welcome its mention in several places of the Discussion Paper. However, we stress that the Draft Outcome for biodiversity is the wrong way around: this ought to state that ecosystem health is necessary for biodiversity to flourish. **We therefore recommend the following amendment to this Draft Outcome:**

*Outcome 4: By protecting, restoring, and enhancing our ecosystems, our biodiversity can flourish*

Whilst there is clearly a co-dependency between healthy ecosystems and flourishing biodiversity, this amendment better locates the policy intervention required to restore this relationship. The Trust believes ecosystem health – and the resultant goods and services that flow from healthy ecosystems – must underpin an environment strategy for Scotland. For this reason, we strongly encourage the Strategy to recognise that healthy ecosystems should underpin all the Draft Outcomes, and that this be stated explicitly. This would allow the biodiversity Draft Outcome to stand alone as an essential outcome, whilst acknowledging the deep interconnectedness of all of these.

### 3. Framing

The language of the draft Strategy is, in places, problematic by failing to fully acknowledge the scale and urgency of climate change, biodiversity loss, and other fundamental environmental considerations. For example, Page 8 of the Discussion Paper mentions that:

No-one can be certain how future global trends and commitments – including in climate change, technology, consumer or land management behaviours, action to address social justice or trade agreements – will influence the well-being of Scotland's environment or our collective use of resources.

The Trust is concerned that this downplays the overwhelming scientific consensus of environmental change at a larger scale, even if specific local outcomes remain hard to predict. There is a clear body of evidence that human activities contribute towards climate change, trends of biodiversity loss and gains are generally well evidenced, and the natural capital index and supporting ecosystem health indicators provide an overall indication of ecosystem health. Consequently, it is important that we act now and take an adaptive approach

<sup>1</sup> <https://scottishwildlifetrust.org.uk/2018/04/what-ever-happened-to-scotlands-land-use-strategy/>

<sup>2</sup> <https://www.gov.scot/Resource/0049/00497086.pdf>: p.14

– responding to and learning from new evidence - and adapting our strategy and plans if required to deliver the outcomes. [As SEPA note](#), there's 'increasing evidence of basic changes to our climate system as a result of human activities. Left unchecked, the rate of change will accelerate, bringing significant consequences for our environment, economy and society'<sup>3</sup>. As such, **we'd strongly discourage any implication of uncertainty about this**. This is especially important as the paper also mentions maintaining the four guiding principles, including preventative action and the precautionary principle. A lack of certainty of specific outcomes, but clear, substantial risks, are precisely the conditions under which the precautionary principle and preventative action are intended to be used.

Therefore, we make the **following recommended changes to this section**:

- Change the quoted section to: 'The overwhelming scientific consensus of anthropocentric climate change, and the growing bodies of evidence in issues such as biodiversity loss, indicate a clear and present risk to Scotland's environment, as well as our social and economic systems. While precise outcomes are hard to predict, with changes in technology, consumer behaviour, land use, and actions to address social justice, Scotland's adoption of the principles of precautionary and preventative action requires we take all necessary steps to mitigate and adapt to these growing risks.'
- Acknowledge that the window for preventative action is already closing on issues such as climate change, with implications for biodiversity and other ecosystem services.

We strongly encourage the Strategy to place due emphasis on the scientific consensus that should underpin policymaking, in line with the environmental principles written into the Continuity Bill: precautionary principle, preventative action, polluter pays principle, and action at source of pollution.

Similarly, the Discussion Paper mentions that 'when we look at the evidence, it is clear that significant future action is needed, for example, to halt the loss of biodiversity in Scotland and restore healthy ecosystems'. 'Future action' is ambiguous, and **the Trust strongly discourages any implication that the need for action rests sometime in the future; the need for action is immediate**. Many human impacts are already irreversible, while we are already noticing the impacts of biodiversity loss and climate change through the increased likelihood of severe weather events. Any Environment Strategy must steer clear of language that could suggest environmental and climate impacts are not already being felt, with immediate action being essential. We therefore make the **following recommended changes to this section**:

- Change the quoted phrase to 'when we look at the evidence, it is clear that immediate, significant action is needed, for example, to halt and reverse the loss of biodiversity in Scotland and restore healthy ecosystems'.
- Make clearer what body of evidence is referenced here and, perhaps in the published plan, to show how this evidentiary basis and its recommendations will be delivered against.

Overall, we stress that the Strategy narrative must be resilient to emerging political priorities, funding pressures, and environmental tokenism that could disrupt progress. In short, **the framing of the Strategy must be commensurate with the scale of the challenge we face**.

This is particularly important in a post-Brexit context. For instance, the UK Secretary of State for the Environment [has announced](#) that a third of environmental legislation will not be directly retained under the

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<sup>3</sup> <https://www.sepa.org.uk/environment/climate-change/>

repeal bill<sup>4</sup>. Whilst we can't be certain at this point of post-Brexit conditions, this demonstrates the capacity and will of the UK Government to renege on some protections. As devolved matters, the Strategy needs to commit to zero-regression on existing EU legislation, and ongoing expansion of cornerstone mechanisms such as [Natura 2000](#)<sup>5</sup> that forms the largest network of protected spaces in the world. [In Scotland](#), nearly 2.5 million hectares have been protected under both the Birds (2009/147/EC) and Habitats (92/43/EEC) Directives that contribute to Natura 2000<sup>6</sup>. In the 'softest' European Exit scenario that retains membership of the EEA, Annex XX of that agreement excludes the Birds and Habitats Directives; any other EU Exit scenario is harder to predict, but likely even worse for conservation protections.

The Trust therefore welcomes the proposals (mostly p.6) for maintaining and enhancing these existing protected areas. At the same time, we stress that, contrary to the document's claim that Brexit is 'a short-term challenge' (p.4), the Environment Strategy must commit to ongoing coordination with European partners in biodiversity protection, restoration and enhancement to maintain, or exceed, European standards. Being outside of European legislation could present long-term challenges in maintaining Scotland's delivery of protected sites. Moreover, elsewhere, such as in the discussion paper on a transitional rural funding arrangement, Brexit clearly remains a long-term driver of environmentally-relevant policy for at the least the six years specified in that paper, and likely long after as a post-transitional arrangement emerges. **We therefore recommend the following changes:**

- Rephrasing the quoted text regarding Brexit as a 'short-term challenge' to acknowledge the ongoing, long-term impact of Brexit on environmental planning, including in agricultural, land management, and other rural support.
- To commit to maximising, where possible, our strong relationships with European partners, acknowledging that Brexit may present challenges in cross-border environmental management, such as invasive species and pollution.

Biodiversity and other environmental issues pay no attention to national borders, and this will clearly continue to be the case post-Brexit. Whilst foreign relations are a reserved matter, there remains an ongoing responsibility for the Scottish Government to deliver on existing arrangements and continue to strive for effective multilevel engagement in these areas.

## 4. Questions

### 1) What are your views on the following draft vision for Scotland's environment and climate change policies?

**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.**

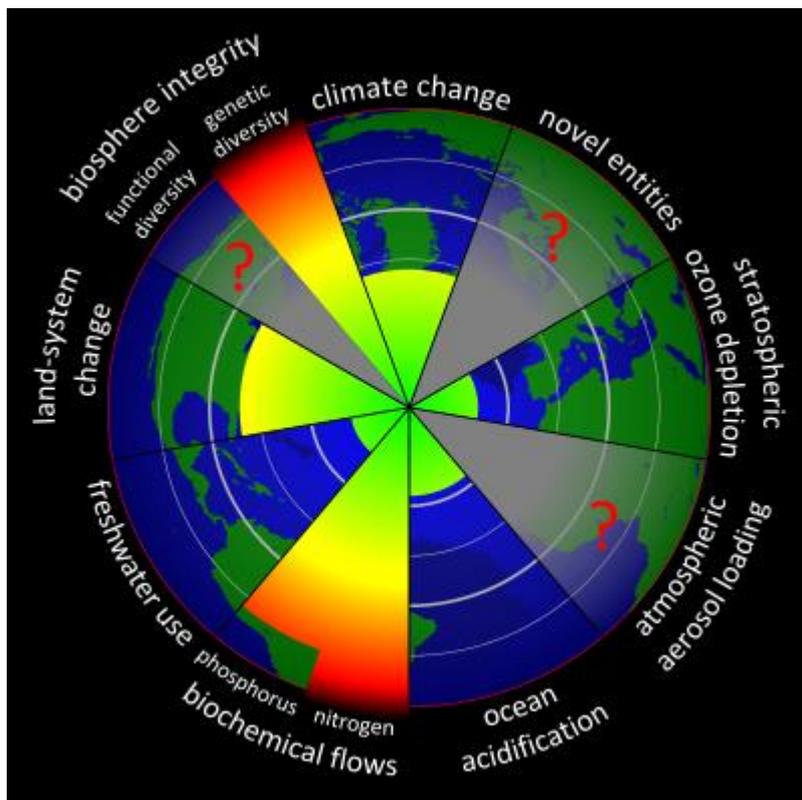
The Scottish Wildlife Trust supports the statement but notes that its brevity is open to different interpretations by different people and interest groups. This constructive ambiguity has clear advantages in building alliances and cross sectoral support. But to be implemented in practice, the Environment Strategy must be clearer in how it defines sustainable limits and prosperity. The Trust would welcome further public debate in how we define prosperity. In defining sustainable limits, the Trust recommends the adoption of a scientifically-grounded approach to defining sustainable limits. For example, the [Planetary Boundaries](#)

<sup>4</sup> <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/environmental-audit-committee/the-future-of-the-natural-environment-after-the-eu-referendum/oral/42022.html>

<sup>5</sup> [http://ec.europa.eu/environment/nature/natura2000/index\\_en.htm](http://ec.europa.eu/environment/nature/natura2000/index_en.htm)

<sup>6</sup> <http://jncc.defra.gov.uk/page-23>

framework, originally quantified by Steffen *et al*, 2009<sup>7</sup>. This would add a clear, globally recognised, and scientifically literate basis for defining sustainable limits and subsequent policymaking. This has the advantage of boosting the narrative of 'one planet prosperity': the planetary boundaries framework is similarly framed by the basic necessity to live within our planet's means. In a [widely-cited update](#) in 2015, Steffen *et al* defined climate change and biosphere integrity (which includes what was previously (and what we normally refer to as) biodiversity) as the two core boundaries, and stated that each has the 'potential on its own to drive the Earth System into a new state should they be substantially and persistently transgressed'<sup>8</sup>. Within this framework, **biodiversity loss far exceeds safe levels**, and is the highest overshoot of the nine boundaries. [It has been argued that](#), given the inherent interconnectedness of biodiversity, local changes in biodiversity soon scale up to regional and global levels<sup>9</sup>. The Trust therefore recommends adopting the framework to ground the one planet prosperity vision, while adopting local and national performance and ecosystem health indicators.



The Planetary Boundaries framework provides a similarly holistic scientific basis for defining and operationalising 'sustainable limits'. The Trust suggests the framework be incorporated into the 'One Planet Prosperity' vision to emphasise the underlying scientific evidence of our current planetary overstretch, especially in the case of biodiversity, together with performance and ecosystem health indicators at the catchment and national levels.

Source: Stockholm Resilience Centre  
<http://www.stockholmresilience.org/research/research-news/2015-01-15-planetary-boundaries---an-update.html>

In line with this vision, the Trust emphasises the role that a [National Ecological Network \(NEN\)](#)<sup>10</sup> can and should play in maintaining and enhancing overall ecosystem health and contributing to the delivery of biodiversity and climate targets. Reconnecting habitats historically fragmented by agriculture, infrastructure and land use intensification, across the landscape at multiple scales, helps establish ecosystems more resilient to pressures, improves ecosystem function and helps deliver a wider range of ecosystem services (public benefits). An NEN will have most impact if it is both strategically planned at the national level ('top

<sup>7</sup> <https://www.nature.com/articles/461472a>

<sup>8</sup> <http://science.sciencemag.org/content/early/2015/01/14/science.1259855>

<sup>9</sup> <https://www.sciencedirect.com/science/article/pii/S0169534713001419>

<sup>10</sup> <https://scottishwildlifetrust.org.uk/2016/07/50-for-the-future-create-a-national-ecological-network/>

down') and implemented through regional land use partnerships ('bottom up'). The network needs to be framed within the socio-economic drivers within any given landscape or catchment.

To further the goal of delivering ecosystem services, 'Enhancing Scotland's Natural Capital', as contained in the [Agricultural Champions report](#)<sup>11</sup> and committed to in our [Economic Strategy](#)<sup>12</sup>, should remain central to the vision of 'one planet prosperity', wherein natural capital is taken as a non-substitutable resource. The Scottish Wildlife Trust has led efforts to recognise the value of our natural capital stocks, and Scotland has been the first to provide an index of its natural capital assets. Natural capital accounting is recognised in the discussion paper, but like the Land Use Strategy it remains unclear what role it is to play in the further development of the Strategy. The Trust's Land Stewardship Policy provides a discussion point for how we can address, for example, post-CAP rural funding by enhancing our ecosystems and removing the negative environmental impacts of the CAP, especially those under Pillar 1 payments.

This has already been acknowledged in the [Agricultural Champions Report](#), wherein 'public funding should be linked more to expectations around improving performance'<sup>13</sup>. Whilst vague, this opens the possibility of linking the provision of ecosystem services to national performance indicators, especially three of the [National Indicators](#)<sup>14</sup> from the National Performance Framework: protected nature sites, biodiversity, and natural capital. Ecosystem health indicators also need to be a priority here to gauge how Scotland's ecosystems are faring and how effective intervention measures and spending are; there needs to be more progress on applying ecosystem health indicators at the catchment scale.

Overall, the 'one-planet prosperity' vision provides a simple way of communicating where we need to be. However, we remain lacking in legally-bound, coordinated action, backed up by adequately resourced government departments and agencies – simply put, the Strategy needs to have teeth if it is to be effective. Moreover, in the absence of a concrete strategy with specific, deliverable goals and defined mechanisms for achieving them, it remains open to interpretation. It harnesses a number of phrases that continue to mean different things to different people. This can be useful in establishing consensus and building alliances, but it is still necessary to ensure that the 'vision' is workable in delivering specific targets and holding Government to account. Therefore, **we strongly encourage that the Scottish Government commit to I) publishing a comprehensive delivery plan alongside the Strategy and II) regular review of progress against this plan with an appropriate set of performance and ecosystem health indicators.** This should identify the mechanisms through which the Strategy would be implemented and what would change as a result, as well as mechanisms that presently don't work and outline how these will be revised or replaced.

## 2) What are your views on the following draft outcomes that will help to achieve this vision?

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 healthy ecosystems.
4. Our air, freshwater, seas and soils are of excellent quality.

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<sup>11</sup> <https://www.gov.scot/Resource/0053/00536005.pdf>

<sup>12</sup> [http://www.parliament.scot/ResearchBriefingsAndFactsheets/S4/SB\\_15-52\\_Scotlands\\_Economic\\_Strategy.pdf](http://www.parliament.scot/ResearchBriefingsAndFactsheets/S4/SB_15-52_Scotlands_Economic_Strategy.pdf)

<sup>13</sup> <https://www.gov.scot/Resource/0053/00536005.pdf>

<sup>14</sup> <https://www.gov.scot/Resource/0049/00497339.pdf>

## 5. Everyone can access, enjoy and connect with nature.

## 6. The global footprint of our consumption and production is sustainable.

The Trust supports the aims of these outcomes, whilst suggesting a greater acknowledgement that ecosystem health plays a vital role as both a condition of many of these, such as biodiversity, air, freshwater, seas, and soils, and as an indication of their success, such as with sustainable consumption and production. The vision of 'one-planet prosperity', as outlined above, indicates a holistic vision that acknowledges the complexity and interconnectedness of our ecosystems and their fundamental role in our economic and social systems. We therefore encourage the draft outcomes to be viewed in a similar fashion, where the delivery on one is partially tied to the delivery of others. For this reason, there's a clear overlap with the Sustainable Development Goals (SDGs), whose mutual interdependence is fundamental to how they are implemented. With this in mind, we suggest certain amendments and additions:

### We would welcome the following additional outcome:

- We play our full role in realising the United Nation's Sustainable Development Goals, acknowledging our global, ethical responsibilities.

We also suggest the following amendments and considerations for the draft outcomes:

- 1) **Climate change:** We would welcome a more committed role for the Scottish Government in facilitating leadership among businesses, education, and institutions.
- 2) **Zero waste:** We welcome the commitment to zero-waste. However, we'd also like to see this go further and be grounded in a broader commitment to a circular economy, recognising the role of innovation in transitioning away from a throughput model to a sustainable footing. This has clear implications for outcome #6, too.
- 3) **Biodiversity:** As per above, we believe this outcome should commit to a three-pillared approach: protect, restore, and enhance. As the Strategy is developed, it must be acknowledged that these each constitute a fundamental pillar, and the detail of each should not be glossed over. As also mentioned, the existing outcome has ecosystem health and biodiversity the wrong way around: ecosystem health is a *condition of* biodiversity protection and recovery. Whilst there's a clear relationship between these two, this better locates where policy intervention is needed, I.E. ecosystem health. We would also welcome a general commitment to continue reviewing the feasibility and benefits of wildlife reintroductions, given the enormous value these have already played in restoring and enhancing Scotland's biodiversity.
- 4) **Air, freshwater, sea, soil:** We strongly encourage the adoption of 'land' into this outcome due to the interconnectedness of all these systems.
- 5) **Nature access:** We strongly support including access to nature as an outcome. However, 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. For example: *People are encouraged, at home, school, work and in their leisure time, to spend time in nature and have easy access to it.* Furthermore, 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.
- 6) **Production and consumption:** We suggest changing 'sustainable' to 'sustainable *and* ethical'. This better recognises that sustainable supply chains and product life-cycles must incorporate

environmental and social sustainability at all points and is essential in meeting our commitments to the SDGs. As with outcome #2, we'd welcome framing this in the broader strategy of a circular economy, which places clearer responsibilities on producers.

### **3) 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?**

We believe there needs to be a clear 'line of sight' between the Sustainable Development Goals, the Scottish Government's core purpose, National Performance Framework, relevant strategies (including this one) and any supporting evidence base. It is currently unclear why certain knowledge accounts have been selected and how they relate to the strategic approach being proposed.

**Air Quality:** The Trust supports the aim of achieving the 'best air quality in Europe'. However, we believe the knowledge account ignores the issue of [indoor air pollution](#)<sup>15</sup>, particularly from external sources of particulate matter and nitrogen dioxide, and we would welcome greater evidence of this issue, its drivers, its impacts, as well as greater ownership of the issue in terms of where the responsibility lies.

**Business resource efficiency:** The Trust supports recognising that the transition to a circular economy encompasses various issues mentioned in this account, such as product design and recycling. It needs to be stressed that under most circular economy approaches, recycling as currently practiced is a last resort as it is the least effective means of maintaining the value of a product through its lifecycle and recovers little of the energy intensity of its manufacture. We therefore encourage the government to press ahead with our transition to a circular economy by adopting its principles on issues such as recycling, reusing, and repurposing.

**Ecosystems and Wildlife:** Within this account there is no mention of the State of Nature reports and perceived differences between this and SNH reports. We need to establish an agreed upon baseline.

**Household resource efficiency:** This account is problematic insofar as it treats something 'recycled' as done and dusted, ignoring what happens to all this recycling. All circular economy approaches have recycling as the last resort, not the first. 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. The Trust is concerned with the emphasis this places on consumer action, rather than seeing this as at least partly dependent upon the production process – we would welcome greater connection between this knowledge account and the account on business resource efficiency. Overall, these both need to be framed by the transition to a circular economy.

**Natural capital:** We'd welcome a more comprehensive inclusion of, for instance, the natural capital asset index. We also need to see blue carbon and other marine elements included in natural capital, as the marine resources referenced in the Strategy don't link up with natural capital.

**Quality greenspace:** The Trust is impressed with the engagement with the emerging medial evidence of green access and 'green prescriptions'. We greatly support this additional rationale for the protection, maintenance, and enhancement of Scotland's ecosystems. However, we also stress that this direct human benefit should not overcloud other biodiversity conservation principles – what's aesthetically pleasing and most accessible may not be what's most ecologically desirable – and a careful balance and maximising of co-benefits needs to be included.

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<sup>15</sup> [https://www.parliament.uk/documents/post/postpn366\\_indoor\\_air\\_quality.pdf](https://www.parliament.uk/documents/post/postpn366_indoor_air_quality.pdf)

**Value the environment:** Similarly, the Trust is impressed with the inclusion of multiple systems of valuation; subjective, medical, economic, etc. We encourage the government to follow through on this recognition and treat the 'value of nature' as a continually deliberative, democratic process that engages closely with local communities.

**Access to nature:** The Trust is concerned with the overly narrow of 'nature' used here, as 'recreation'. 1) This overly narrow definition ignores the biodiversity importance of natural areas. For example, it mentions walkways and cycle networks, which are essential, but not the benefits of e.g. wildflower verges and the co-benefits of these. 2) There's zero mention of the problems of increased footfall on natural areas – we strongly encourage the Strategy to include access to nature in approaches to sustainable tourism. We also stress the need to expand our natural spaces through, for example, a national ecological network (NEN) to reduce the impact of well-visited areas, create wildlife corridors through and between ecosystems, and contribute towards new walkways and cycle routes close to nature. 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.