25 Year Environment Plan.
A response from the British Ecological Society to the Environmental Audit Committee
March 2018

The British Ecological Society: 'A world inspired, informed and influenced by ecology' www.britishecologicalsociety.org

Founded in 1913, we are the world's oldest ecological society, with over 5,000 members worldwide. As the voice of the UK's ecological community, we communicate the value of ecological knowledge to policymakers and promote evidence-informed solutions.

This response has been developed in collaboration with our membership. Our membership includes many academics who work in fields relating to ecology and the environment. Thanks to their expertise, we are able to draw on their knowledge and evidence base to ensure that the ideas set out in the 25 year plan result in the best and most sustainable outcome for the UK's biodiversity, wildlife habitats and wider environment.

Introduction

The British Ecological Society (BES) welcome the long-term vision and scope within the 25 year plan to improve the environment (hereafter referred to as the Plan), which aims to brings together the many elements of the natural environment. However, it is lacking ambition within its individual objectives.

1. The Plan presents a once in a generation opportunity to update and reform Defra's environmental policies. The long-term nature of the Plan opens up the possibility of not only delivering better and more effective results, but also of embedding the pursuit of a healthy environment into all aspects of policy. The Plan has the potential to protect our unique natural environment for future generations and play a vital role of increasing our resilience in the face of the unpredictable and damaging effects of climate change.

2. The environment is a broad and vast topic, and a plan to maintain, protect and improve it must be ambitious. Such ambitions will be complex as they must navigate other issues such as privately managed land, housing developments, and resource extraction. But environmental objectives should always be considered alongside other societal objectives and policies. The environment supports a range of ecosystems which provide vital public goods and services.[1] Often the economic benefits provided by ecosystem services are not recognised and thus, the provision of these public goods remains unaccounted for within societies. Being ambitious about

[1] Ecosystems offer provisioning services such as medicines, fresh water, food, fibre, wood, genetic resources , and they offer regulating services such as water purification, air quality maintenance, flood alleviation, pollination, climate regulation, waste management, regulation of human disease, and biological control of agricultural pests and disease. Furthermore, ecosystems offer supporting services such as soil formation, photosynthesis, nutrient cycling, primary production, water cycling, provisioning of habitat. Finally, ecosystems provide cultural services including sense of place, inspiration, educational values, cultural heritage values, aesthetic values, and tourism. (source: Millenium Ecosystem Assessment (2005) Ecosystems and Their Services. https://www.millenniumassessment.org/documents/document.300.aspx.pdf)

the environment requires a commitment to the long-term protection and investment in these vital services and goods.

a. Ambition and Reporting

To what extent does the Plan set a sufficiently ambitious agenda across Government? Are there any major gaps?

3. The BES welcomes a plan of this scope - one that brings together so many elements of the natural environment such as land, freshwater, and the sea. The Plan, however, falls short of its potential due to unmeasurable and often unambitious targets and objectives. We provide a few examples, given in numbers "5" to "9" below, to highlight areas of concern for the BES.

4. The Plan provides details on the intended outcomes but is not comprehensive in the details surrounding how those objectives will be measured and met. Out of the 44 success criteria in the Plan, only 11 are SMART objectives. A greater use of SMART (specific, measurable, achievable, realistic and timely)[2] objectives would provide clarity on how and when the long-term goals will be implemented through the provision of a comprehensive framework of indicators for the objectives.

5. The Government states it will be: "Creating or restoring 500,000ha of wildlife-rich habitat outside the protected site network."[3] The BES welcomes the intention to significantly expand wildlife-rich habitats within England. However, the rationale behind the target of 500,000ha is unclear and a clear evidence base should explain whether 500,000ha of additional or restored wildlife-rich habitat is ambitious enough to prevent the continued decline in our biodiversity. Is the ambition of this goal to reduce or to prevent biodiversity loss or to see an increase in biodiversity? Which of the former will be delivered through the 500,000ha of wildlife-rich habitats? How quantifiable is this goal? It is unclear what the definition is of "wildlife-rich" and what metrics will be used to measure this richness and if they will be based on the ecological concept of species richness. The success of this initiative will be contingent on what type of habitats are created and restored and where they will take place. The Plan does not specify how much of the 500,000ha figure will be creation and how much will be restoration. Some habitats take longer to establish and maintain, such as woodlands and wetlands. Will habitats which are easier to establish be prioritised for potentially more immediate wildlife results? What proportion of the 500,000ha figure will each habitat type represent? How does the Government plan to optimise these habitats for wildlife richness? These habitats will require maintenance and so their upkeep must follow the restoration and creation process. This figure should form part of a means to secure wildlife for future generations.

[2]Chartered Management Institute (2011) *Setting SMART Objectives Checklist 231*
https://www.managers.org.uk/~/media/Files/Campus%20CMI/Checklists%20PDP/Setting%20SMART%20objectives.ashx
[3] UK Governmnet (2018) *A Green Future: Our 25 Year Plan to Improve the Environment*
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/673203/25-year-environment-plan.pdf p.26

6. The detailed plans and targets for the 500,000ha figure are not available and will not be available prior to 2020. Until those plans are released, it is unclear if this restoration and creation will follow the aims and goals of Biodiversity2020 or how it will differ with regards to habitat creation? The Biodiversity 2020 strategy commits to: "More, bigger and less fragmented areas for wildlife, with no net loss of priority habitat and an increase in the overall extent of priority habitats by at least 200,000 ha".[4] Has the Government achieved this target and is there evidence demonstrating the need for 200,000ha? Has any net loss of priority habitat occurred and what are the plans to prevent such loss with the new ambitions of the Plan? Will there be a consultation to inform how best to implement the 500,000ha of additional or restored wildlife-rich habitat so that it can rolled-out by 2020?

7. Priority habitats are those which have been identified as being the most threatened and requiring conservation action.[5] Of the 500,000ha that is for restoration and not creation, how much will be dedicated towards recovering priority habitats and what is the target for each priority habitat? Biodiversity2020 states one of its objectives as: "Better wildlife habitats with 90% of priority habitats in favourable or recovering condition". Has the Government reached its 90% goal of priority habitats in recovering or favourable condition?

8. Climate change is predicted to become the leading cause of biodiversity loss globally, negatively affecting the ecosystem services available.[6] Studies have shown that up to 82% of core ecological services could be disrupted by climate change.[7] Climate change has already begun to negatively impact different species, as range reduction and fragmentation have accelerated extinction.[8] For example, an estimated 47% of land mammals and 27% of birds have already been negatively impacted by climate change.[9] The Government should include a greater emphasis on climate resistance in the Plan, further consider the impact of climate change on species. A landscape approach needs to explicitly include its role of enabling species distributions to shift with climate change. The Plan does not sufficiently recognise of the seriousness of impacts and the adaptation needed in the next 25 years as we expect a two degree increase in temperatures globally by 2040.[10]

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[4] Defra (2011) *Biodiversity 2020: A strategy for England's wildlife and ecosystem services*
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69446/pb13583-biodiversity-strategy-2020-111111.pdf

[5] JNCC (2016) *UK BAP priority habitats*
http://jncc.defra.gov.uk/page-5718

[6] IPCC (2014) Summary for Policymakers. In: *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*
https://www.ipcc.ch/pdf/assessment-report/ar5/wg2/ar5_wgII_spm_en.pdf

[7] Scheffers, BR et al. (2016) *The broad footprint of climate change from genes to biomes to people*, Science, 354(6313), aaf7671
http://marinepalaeoecology.org/wp-content/uploads/2016/11/Scheffers_at_al_CC_impacts_Science_2016.pdf

[8] Parmesan, C (2006) *Ecological and Evolutionary Responses to Recent Climate Change,* Annual Review of Ecology, Evolution and Systematics, 37:1, 637-669
https://www.annualreviews.org/doi/abs/10.1146/annurev.ecolsys.37.091305.110100

[9] Pacifici, M et al (2017) *Species' traits influenced their response to recent climate change*, Nature Climate Change, 7, 205–208
https://www.nature.com/articles/nclimate3223

[10] IPCC (2014) Summary for Policymakers. In: *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*
https://www.ipcc.ch/pdf/assessment-report/ar5/wg2/ar5_wgII_spm_en.pdf

9. In England, woodlands make up 10% of land area. They can provide important biodiversity rich habitats, and a range of ecosystem services. The Plan has a target to plant 11 million trees but it does not specify if the trees will be native or if the trees are being planted to benefit wildlife. Native woodlands compared with commercially afforested areas provide different habitat types for wildlife, and different ecosystem services. Greater clarity is needed as to whether the 11 million trees are for the expansion of the timber or for wildlife benefit. The Government has previously committed to a 12% woodland cover target by 2060, although the Independent Panel on Forestry recommended that the Government aim for 15% land cover by woodland by 2060. To meet the 12% target, Government would need to plant approximately 5,000ha per year. In 2012 the Government also committed to having two-thirds or 66% of woodlands under management by 2018. That target has not been met as only 58% of woodlands are currently under management. This figure has not improved for three consecutive years. The Plan needs to address why previous targets have not been met and how it intends to overcome the barriers it has faced in the past.

10. The Plan's ambitious new framework for peat restoration in England and forthcoming England Peat Strategy is welcome, but the measures for what 'sufficient progress' means for peat loss is unclear. Peat replacement will need more than the Responsible Sourcing Scheme for Growing Media; this voluntary approach has failed to meet the retail targets and a more ambitious approach is needed.

11. The EU's Common Agriculture Policy (CAP) has shaped national land and farming priorities for decades. Current farm subsidies total £3.2bn and total payment to farmers equal £2.56bn.[11] The Government suggests that these figures will change post-2022 and will be refocused on achieving good environmental practice. We welcome the commitment of giving farmer's incentives to restore and improve the environment they manage. An evidence-based framework for how these environmental benefits can be monitored and measured is key for ensuring that these incentives have the maximum benefit for wildlife and biodiversity, food production, ecosystem services and human health. The Plan presents a positive intent to more sustainable farming however, the details will be worked out through 'the future for food, farming and the environment' consultation. This represents a vital component of enabling the Plan to meet its goals.

What would success or failure look like for the Plan? To what extent will the Government's proposals for reporting on the Plan allow for proper scrutiny of its performance against its objectives? Are the commitments to legislative action in the Plan sufficient to ensure it will endure beyond the current Parliament?

[11] BBC (2017) *Farm subsidies 'must be earned' - Michael Gove* http://www.bbc.co.uk/news/science-environment-40673559

12. The Plan has the potential to have a significant positive impact on the environment. Achieving the environmental goals and targets set out by the Government would set a strong president for the protection of the environment for future generations. The most effective way to ensure that the ambitions laid out in the Plan are achieved is have underpinning legislation. The UK NEA highlighted that: "No national, regional or global-scale environmental issue (e.g. air and water quality) has ever been successfully addressed without an appropriate enabling framework using a mix of regulations, technology, financial incentives and behavioural changes…. Many of the recent improvements in ecosystem services and biodiversity conservation have happened as a result of effective regulation".[12] Legislative drivers such as the Habitats Directive and the Birds Directive, the Natural Environment and Rural Communities (NERC) Act 2006, and the Marine Strategy Framework Directive (MSFD) 2008 have been vital in driving conservation work and delivering improved biodiversity results.[13] New legislation will be key to enabling the implementation of the Plan while the necessary funding will support individuals and organisations in implementing the Plan.

13. Will the Government plan to put forward legislation to ensure compliance and delivery of these goals? The Plan is unclear as to what the penalties would be for non-compliance to environmental standards. It is unclear as to how future trade deals may affect the ability of the Plan and any supporting legislation to be achieved. Could environmental standards be reduced or dropped should a trade agreement with an international partner require so? Will the proposed independent statuary body have the power to sanction Governments seeking to do so?

14. The long-term approach of the Plan should enable more positive impacts on the environment since many ecological processes need longer term commitments than has previously been offered by biodiversity plans. Intermediate measurable milestones would help ensure the long-term goals of the Plan are achieved by measuring progress and ensuring the Plan is on track. They could also allow for improvement of the implementation of the Plan and adjustment of activities throughout the Plan's lifespan.

15. Achieving environmental targets requires funding for successful delivery. Replacing products and activities which are relied upon by industry, calls for financial commitments towards to compensate for loss and funding to research alternative options.

16. Existing bodies which deliver environmental management such as Natural England, will also need funding for the range and scope of activities involved in achieving the Plan. Natural England, has faced budget cuts in recent years. Their overall funding between 2010 and 2015

[12]UK National Ecosystem Assessment (2014) *UK NEA & NEAFO Publications* http://uknea.unep-wcmc.org/Resources/tabid/82/Default.aspx
[13] UK National Ecosystem Assessment (2014) *UK NEA & NEAFO Publications* http://uknea.unep-wcmc.org/Resources/tabid/82/Default.aspx

was reduced by 35%,[14] putting into question its ability to deliver on even more environmental initiatives. The lack of information on budget allocation is a cause for concern in terms of the achievability of the plan without the necessary resources.

b. Implementation

The Plan sets out a natural capital-led approach and a principle of "environmental net gain" when undertaking development. What are the risks and benefits of adopting these approaches? What steps need to be taken during development and implementation to ensure they lead to positive environmental outcomes, especially in respect of biodiversity?

17. The Natural Capital approach provides a framework for a step change in how we think about nature conservation.[15] By thinking about the desirable level of benefits (e.g. "pleasure of knowing wildlife exists" or "yield of fruit that results from healthy pollinator populations"), we can start working back towards the required level of the assets (the size of plant and animal populations, and their spatial configuration). The Natural Capital approach can play an important role in setting targets. However, how will this ambition be met if funding continues to decrease?

18. Using a Natural Capital approach, however, frames the Plan around the economy, and the contribution of wildlife should not solely be measured in terms of monetary value. Those benefits with a higher monetary value may be the target of management at the expense of those difficult to determine, such as biodiversity.

19. The Plan is unclear as to what "environmental net gain" is and whether or how it includes "biodiversity gain". It is also unclear how much gain would be desirable or expected. The Government should clearly set out how the environment will gain from the natural capital-led approach to development and specifically what this means for the biodiversity and habitats in areas under development. (We acknowledge that a consultation on a National Planning Policy Framework[16] has been initiated and that it could potentially address this statement in full).

20. The Plan should be followed by opportunity mapping to identify where to target biodiversity enhancing schemes in order to maximise benefit. Restoration methods and habitat requirements are already well understood for species-rich habitats in floodplains (and elsewhere), but the correct incentives are lacking. Systems such as floodplains have high natural capital which allows them to deliver benefits which are disproportionately greater than their area would suggest. The Plan should provide more clarity on how biodiversity will be maximised and what habitats will be prioritised.

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[14] Natural England (2014) *Corporate Plan 2014-2019* https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/300746/ne-corporate-plan-2014-2019.pdf

[15] Mace, GM, et al. (2015), *REVIEW: Towards a risk register for natural capital*. Journal of Applied Ecology, 52: 641–653 http://onlinelibrary.wiley.com/doi/10.1111/1365-2664.12431/full

[16] Ministry of Housing, Communities & Local Government (2018) *National Planning Policy Framework: Draft text for consultation*. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/685289/Draft_revised_National_Planning_Policy_Framework.pdf

21. Warwickshire County Council and the Warwickshire Biological Records Centre (WBRC) are currently exemplar in the use of biodiversity data in planning decisions. The Warwickshire Biological Records Centre (WBRC) contains information and data on species distribution and ecological sites.[17] The data available at the centre is used to inform planning and development. Warwickshire, Coventry and Solihul were chosen as one of six national pilots for biodiversity offsetting in the 2012-2014 period.[18] Warwickshire County Council describes biodiversity offsetting as: "where conservation activities deliver biodiversity benefits in compensation for biodiversity loss in a measurable way". The success of the pilot resulted in all Local Planning Authorities within this sub-region continuing with biodiversity offsetting on all Minor and Major applications. A biodiversity impact assessment calculator is available to developers and recommendations for offsets are based on a clear methodology for calculating loss. The use of biological data for planning and the success of the biodiversity offsetting programme are exemplars of what can be done across England at the county level.

To what extent does the Plan set out effective delivery mechanisms to ensure DEFRA, other Government departments and public bodies have the resources and responsibilities to implement it? Where should the Government seek agreement with the Devolved Institutions to ensure a common approach across the UK?

22. It is not clear that the Plan sets out effective delivery mechanisms to ensure Defra, other Government departments and public bodies have the resources and responsibilities to implement it (see numbers 12 to 15).

23. The Plan does not confirm the funding required for successful implementation. If the majority of responsibility for delivery lies with statutory agencies such as Natural England and Environment Agency, these have been subject to major cuts in both funding and staff and are currently not resourced to deliver existing responsibilities, let alone implement new initiatives.

c. Principles and Oversight

The Government has proposed an independent statutory body to "champion and uphold environmental standards as we leave the European Union". What role, legal basis and powers will it need to ensure the Government fulfils its environmental obligations and responsibilities? How do these compare to the role of the European Institutions in the existing arrangements? What standard would it have to meet to be "world leading"?

[17] Warwickshire County Council (2018) *Warwickshire Biological Records Centre.* https://www.warwickshire.gov.uk/biologicalrecords
[18] Warwickshire County Council (2018) *Biodiversity Offsetting*. https://www.warwickshire.gov.uk/biodiversityoffsetting

24. An effective body would need to be sufficiently representative of stakeholders (including landowners and farmers) to ensure it is non-partisan in its views. It would be important for the body to work towards long-term goals that are not altered with each new Government. The body will need to be able to hold the Government to account on its environmental objectives. To do so there must be legislation which is passed which upholds and enforces the objectives in the Plan, otherwise is only a series of intentions, and the Government cannot be held to account. Furthermore, the body will need the funding, research capability and expertise to measure and monitor the progress of the plan.

25. Will the Natural Capital Committee continue to advise the Government after its current term finishes in 2020? And would it work alongside a new environment body to deliver goals within the Plan? What would be the legal status of the body if it is to have the power to hold the Government to account?

The Plan sets out a series of objectives and the Government says it will consult on a policy statement on environmental principles to underpin policy-making after leaving the European Union. What principles should the Government include as part of that consultation? What legislation might be needed?

26. For environmental legislation, see answer 11.