

# RSE

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Policy advice

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# Scotland's strategic framework for biodiversity consultation

February 2024



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### Acknowledgements

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## Executive summary

The Royal Society of Edinburgh (RSE), Scotland's National Academy, welcomes the opportunity to respond to the Scottish Government's consultation on the strategic framework for biodiversity. The consultation outlines a robust biodiversity strategy, marking a promising step towards biodiversity and nature restoration in Scotland in the short and medium timescales. There are many positive elements of the consultation which the RSE both acknowledges and supports.

The Scottish Government is to be applauded on the latest iteration of its strategic framework for biodiversity ("biodiversity strategy"). Without its successful implementation, following further development, Scotland will not be able to achieve its aspirations for nature restoration and the role this plays within our society.

However, the biodiversity strategy cannot succeed without fundamental changes to the way policies, strategies, funding mechanisms and action plans are delivered throughout the public sector. Hence, formal and focussed mainstreaming into all other government activities is essential. Changes in the ways support for agriculture and forestry are funded are essential to these efforts. *"To achieve this sea change, the mandates of all relevant public authorities need to be strengthened, from the current 'have regard to' to 'must do'."*

For the biodiversity strategy to be achieved, there needs to be clarification of the resources required and how they will be made available, and substantial revision of the proposed governance arrangements to make them manageable and useful by building on existing arrangements. The role of Environmental Standards Scotland (ESS) should be strengthened to help with this aim.

The delivery plan for the biodiversity strategy should include clear delivery timescales, allocation of responsibilities and accountabilities, and the development of targets that are SMART (specific, measurable, achievable, relevant, and time-bound), aided by expert input.

Plans for a new national park should be supported. Those not achieving their bid for national park status should be helped to develop other approaches, including landscape protection.

The linking of protected areas will need to be given greater priority through implementation of the proposed nature networks. A resurrection of the natural heritage areas is one way of achieving this.

Environmental education, especially at primary and secondary levels, needs to be revised.

An ethical approach is recommended through implementation of a Charter for Nature.

The further development of citizen science will provide greater participation and useful knowledge.

## Introduction

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1. The RSE considers that further development is needed on three key points. Firstly, the delivery plan should have SMART (specific, measurable, achievable, relevant, and time-bound) targets that allow qualitative and quantitative tracking of progress and the ability to make adjustments to ensure success. Secondly, there needs to be a formalised programme management structure underpinning delivery.<sup>1</sup> Finally, more coherent and workable mechanisms of accountability are needed, using or building on existing structures where possible, to guarantee the realisation of nature restoration in Scotland.
2. The RSE would like to see a greater sense of urgency for addressing the biodiversity crisis. This is vital if Scotland is to adhere to the proposed 2030 and 2045 nature recovery timelines and keep pace with restoration initiatives proposed in the European Union.<sup>2</sup> Recognising the complexity of responding to the twin crises of biodiversity loss and climate change, the RSE therefore urges the Scottish Government to execute a swift and SMART delivery of the objectives outlined in the consultation.
3. The consultation outlines six objectives intended to make Scotland “...*Nature Positive, halting biodiversity loss by 2030, and to have restored and regenerated biodiversity across the country by 2045.*” The RSE is concerned by the presence of only six high-level objectives in the 2030 and 2045 strategy. The inclusion of several more high-level objectives in the strategy would ensure a greater level of clarity and consistency throughout the delivery plan. The omission of freshwater environments in the objective of “*protecting nature on land and at sea*” should be rectified.
4. As noted in a previous response to the Scottish biodiversity strategy by the RSE<sup>3</sup>, the strategy continues to lack targets and the actions necessary to achieve them with clear timescales and accountability mechanisms. Without appropriate timescales, accountability, and an explicit governance structure, the targets are at risk of not being successfully delivered.
5. The RSE welcomes the improvements made to the outcomes and objectives for ecosystems, species,

and protected areas. It welcomes the significant role that the national programmes of ecosystem restoration and species recovery will play.

## Scottish biodiversity delivery plan

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6. The most essential requirement for improvement in the delivery plan is to ensure mainstreaming of biodiversity across all areas of policy, so that perverse policies and incentives, such as the agriculture and forest support schemes, for example, are removed. Biodiversity will need to be duly prioritised in other nature and climate objectives, as well as integrated across government policy in its entirety. For example, the discussions of the agriculture reform implementation oversight board present an opportunity to interweave the issue of biodiversity throughout agricultural policy, ensuring that the full range of actions needed to effectively provide biodiversity outcomes are incorporated into the eventual policy processes. The RSE recommends that mainstreaming itself be made an objective, outlined in the delivery plan, to ensure its proper prioritisation in all relevant policy developments.
7. The RSE finds the actions in the delivery plan to be appropriate for the ambitions of reversing biodiversity loss and detrimental biodiversity change. However, the RSE is concerned about the lack of overall coherence, the lack of clarity over responsibility and accountability, and the lack of specification of the scale of resources of people and financial support, given the large number of actions that are proposed. Additionally, very few of these actions are currently expressed in SMART ways which could give rise to ambiguity in how they are executed. To ensure the actions are delivered, further clarity is needed on who is responsible for delivery and the timescales for their delivery. While recognising the challenges of collecting quantitative data on biodiversity, the expectation of establishing milestones should be explicitly articulated to ensure adherence to the proposed 2030 and 2045 timeframes.
8. Many of the actions and policies in the framework overlap. This should be resolved to prevent duplication, whilst at the same time recognising the interdependencies of the actions and how each action is part of a greater system contributing to the restoration of biodiversity in Scotland.

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<sup>1</sup> <https://www.gov.scot/publications/scottish-governments-principles-programme-project-management/>

<sup>2</sup> [https://environment.ec.europa.eu/strategy/biodiversity-strategy-2030\\_en](https://environment.ec.europa.eu/strategy/biodiversity-strategy-2030_en)

<sup>3</sup> <https://rse.org.uk/expert-advice/scottish-biodiversity-strategy/>

9. It is also essential that the actions be coordinated spatially. In the first instance, this could mean coordination across: the planning system, the land use strategy, the species at risk and Scottish biodiversity strategy priority species lists, and land management support mechanisms, a blue economy vision for Scotland, nature networks, ecosystem restoration and species recovery programmes, 30 by 30, and protected areas. The RSE recommends the creation of a practical and regionally framed map of biodiversity priorities to help target efforts and funding more effectively.

## Funding

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10. While the level of ambition put forth in the delivery plan is essential for meeting Scotland's biodiversity restoration goals, the RSE wishes to see greater clarification on the level of human resources and finance needed to execute the plan and how these are to be made available. The RSE supports the creation of a biodiversity investment plan that sets out how delivery plan actions will be funded, either through public, private, or blended channels, as funding has been a major hindrance in past biodiversity strategies and policies. It is therefore crucial for the Scottish Government to enable conditions that ensure the plan can be funded and the vision achieved. Thus, the biodiversity investment plan should include timeframes for completion and should clarify the role of regulation in incentivising private investment in nature, while ensuring measurable additionality and an environmentally ethical approach.
11. The RSE strongly recommends the establishment of compliance audits of all existing and new policies and legislative proposals to ensure that environmental objectives are being met. To monitor compliance of the proposed environmental actions, the role of Environmental Standards Scotland (ESS) should include a monitoring and surveillance remit, with the scheme development supported by expert input. Monitoring compliance and reporting malpractice will be an essential part of achieving the actions indicated in the delivery plan.

## Mainstreaming and statutory targets

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12. As stated earlier, a primary concern of the RSE is mainstreaming biodiversity across economic and social policies and their resourcing schemes in Scotland. The intention of promoting restoration and regeneration by 2030 will only be made possible

through a systemic endorsement and adoption of the biodiversity agenda. The RSE strongly recommends the establishment of legally binding targets for nature restoration as a crucial component of the delivery plan. RSE welcomes the inclusion of statutory targets in the forthcoming Natural Environment Bill. Beyond the mere establishment of legally binding targets, it is essential for monitoring and enforcement mechanisms to be put in place; including spelling out the consequences for not delivering them. One possible consequence of not doing this could be the diversion of funding to other strategic organisations.

13. The adoption of legally binding nature restoration targets will help to drive change, but having strategy and delivery plan actions that are SMART and mapped onto the relevant departments and agencies will be critical in achieving the stated ambitions. Legally binding targets will be futile without a proper plan and a system of accountability and enforcement.
14. Another foreseeable challenge accompanying the establishment of legally binding targets is that, oftentimes, biodiversity cannot be captured in a single metric and so complementary targets will be needed to represent this complexity. Targets should be ecologically meaningful. However, a balance must be struck between having sufficient achievable targets to adequately encapsulate changes in biodiversity and preventing unnecessary confusion by having too many targets.
15. The RSE would also support the proposed Natural Environment Bill including provisions for periodically reviewing statutory targets. This will ensure that the targets remain relevant and evidence-based, allowing for any emerging knowledge to be considered. It will also allow for the impacts of monitoring to inform the targets where appropriate.

## Governance

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16. To meet the nature and biodiversity restoration goals, it is imperative to set up a structured system of accountability. The current proposals will potentially lead to overlap and duplication and do not specify clear roles for the existing government agencies. As one possibility for consideration, a programme management structure could be implemented whereby a designated Commissioner, responsible for delivering the nature restoration targets, is appointed. This Commissioner of Nature Recovery would be accountable to Parliament, and therefore the public, for meeting the targets. Instead of creating a separate

body, the Commissioner and their staff could work through a public body, like ESS or NatureScot. It would also be advantageous to clarify the roles of the statutory bodies, namely NatureScot, the Scottish Environmental Protection Agency, and ESS, to avoid establishing unnecessary committees and working groups that fail to deliver the proposed actions.

17. The RSE also recommends a shared governance approach with local communities rather than taking a centrally managed approach. This will provide an opportunity to further incorporate local knowledge and experience, fostering greater collaboration on initiatives to promote biodiversity throughout all parts of Scotland.

## Agriculture and biodiversity

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18. Given that 70% of Scotland's land is classified as agricultural land, biodiversity restoration in these areas comprises a vital aspect of the overall environmental agenda. The RSE is concerned about the effectiveness of the proposed whole farm planning approach in the delivery of nature outcomes. The delivery plan should explicitly establish how the new framework will achieve nature restoration through the design and resourcing of the four tiers, and how landscape-scale outcomes might be achieved through supporting cooperation and collaboration between landowners and managers.
  19. Alternatively, whole farm plans allow for an overview of the entire operation: providing context for measures of importance to nature and the environment and enabling recognition that different parts of the operational unit can contribute to a variety of policy objectives. They could also engage farmers in various parts of the government machine and reduce the burden of bureaucracy on farmers. Thus, the RSE welcomes this approach, contingent on further articulation of how it will deliver the proposed nature outcomes.
  20. The RSE is concerned about the disproportionate amount of funds held in the top two tiers (tiers one and two) of the four-tiered payment framework in the Agriculture and Rural Communities (Scotland) Bill.<sup>4</sup> The concern is that there is insufficient focus on biodiversity gain, natural capital gain, and climate change action in tiers one and two and that most of the available funds (at the time of writing, an estimated 90%) will be kept in these top
- tiers. It is concerning that a few of the biodiversity restoration initiatives, namely tree planting, woodland management, and peatland restoration, fall in the fourth tier where funding could be inadequate. Thus, it is important that sufficient funding be provided across all tiers to deliver on climate and nature restoration objectives. As it currently stands, using just over 10% of the available funding for tier three and four activities will be insufficient to encourage the scale of on-the-ground change that is required to halt ongoing biodiversity loss across Scotland.

## National parks

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21. National parks have a significant role to play in the restoration of nature and in enhancing biodiversity. The RSE supports the proposed provisions in the consultation as they are an improvement on the present statutory basis. The new basis should also be applied to the two existing national parks, Loch Lomond & Trossachs and Cairngorms. Any new national parks will not meet the requirements of the overriding duty in Section 9 of the National Parks (Scotland) Act unless all public authorities, in addition to the National Park Authority, have a clearly defined statutory role to adhere to that statutory provision. These National Park Authorities must adopt a leadership role, assuming responsibility for nature restoration and climate change mitigation and adaptation.
22. To ensure compliance with the four aims of the national parks, the RSE recommends the use of more obligatory language when referring to the involvement of public bodies. As such, it should be set out in the revised legislation "*public bodies operating within the national park must adhere to the statutory aims and in particular to the overriding nature restoration aim.*" This will clarify the role of public bodies and make certain that they are abiding by the encompassing aims of the national parks.
23. Regarding the four aims of the national parks, the RSE recommends a hierarchy of priorities whereby nature conservation is primary, followed by the other three purposes. Instead of prioritising "*economic and social development of the area's communities*" above all else, nature and biodiversity restoration should take precedence. This would allow greater opportunity for Scotland's national parks to be recognised by the International Union for Conservation of Nature (IUCN) as category II protected areas. This prioritisation of

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<sup>4</sup> <https://www.parliament.scot/-/media/files/legislation/bills/s6-bills/agriculture-and-rural-communities-scotland-bill/introduction/explanatory-notes-accessible.pdf>

nature restoration will not only facilitate Scotland meeting its domestic aspirations but will also clearly signal the country's commitment on the international stage.

24. It is essential that the Scottish Government devises a plan for how to deal with bids for a new national park that fail to be selected. This is an opportunity to take seriously community engagement in the ownership and management of land of natural and scenic significance. Consideration of a landscape designation aligned to category V of the IUCN protected area management plan system should be undertaken.

## Nature networks policy framework

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25. The RSE supports the nature networks concept in principle but considers the current proposal too vague. To avoid confusion, the proposal should clarify the role that land management advisors and local authorities will have. The RSE is also concerned that the proposal places the responsibility of establishing these nature networks on local authorities, which are often heavily resource constrained. As with other elements in the delivery plan, specified timeframes for the implementation of nature networks should be articulated.
26. Additionally, the delivery plan fails to note the importance of the ecological connectivity of terrestrial and aquatic (both freshwater and marine) nature networks, not merely the physical connectivity. Despite the elaboration of the physical connectivity of nature networks, the proposal lacks a balanced view on the advantages and the challenges about biosecurity. While connectivity between ecosystems is an important aspect of biodiversity, it can also lead to, for example, the spread of invasive species, pathogens, and predators. Thus, it is at times advantageous to have separate, delineated systems. With these considerations in mind, biosecurity initiatives should be thoroughly examined alongside nature network proposals.

## 30 by 30 policy framework

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27. The proposal to protect 30% of the land and waters of Scotland by 2030 is a vital component to the realisation of the biodiversity agenda. Building on several other countries' environmental initiatives,

Scotland has the opportunity to deliver a robust 30 by 30 framework which will act as the backbone for wider ecosystem and species restoration and regeneration. The Scottish Environment LINK Report<sup>5</sup> outlines high-level principles for delivering the 30 by 30 initiative in Scotland. Amongst the important recommendations outlined in the report is the emphasis on the connectivity between the protected 30% and the other 70%. As the report articulates: "... if we effectively protect 30% of land for nature but we are failing nature in the other 70%, then we stand no chance of halting and reversing the nature crisis".<sup>6</sup> The RSE strongly supports this statement, expanded to include land and water resources, as it confirms long-standing international and Scottish experience. If the remaining 70% is ignored from nature and natural capital perspectives, this will be detrimental to the achievement of government policy objectives for biodiversity and nature as a whole.

28. Regrettably, much of the delivery of the 30 by 30 vision is still being deferred to future documents. Given that 2030 is less than six years away, Scottish Government should take immediate action to ensure that quick progress is made. The RSE recommends the inclusion of several high-priority actions to jumpstart the initiative and increase the chances of meeting the 30 by 30 target. Some of these high-priority actions should include the following matters: the establishment of clear governance structures, incorporating the recommendations of the 2016 third special protection areas review<sup>7</sup>, collating sites that could be prioritised for inclusion within 30 by 30 plans, making conservation linkages between protected areas to up the scale to the required level, using community land funds to improve capability of communities for managing their land, and introducing targeted restoration grants for the most naturally degraded areas. In this context, the Scottish Government should seriously and urgently reconsider the proposals originally included in the Natural Heritage (Scotland) Act 1991 for the establishment of natural heritage areas, which were regrettably repealed in the Nature Conservation (Scotland) Act 2004. Their time has now come, given the need to scale up nature conservation efforts, ensure that linkages are made in the landscape between currently protected areas, therefore contributing to delivering an effective nature networks policy in a 30 by 30 context.

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<sup>5</sup> <https://www.scotlink.org/wp-content/uploads/2022/11/30-by-30-Report-WEB.pdf>

<sup>6</sup> <https://www.scotlink.org/wp-content/uploads/2022/11/30-by-30-Report-WEB.pdf>

<sup>7</sup> <https://data.jncc.gov.uk/data/d1b21876-d5a4-42b9-9505-4c399fe47d7e/ukspa3-status-uk-spas-2000s-web.pdf>

29. Overall, the RSE would encourage greater environmental stewardship, fostering a sense of responsibility to restore and protect beyond the 30%. This could be achieved through reform of the agriculture and forestry grant schemes through the Agriculture and Rural Communities (Scotland) Bill currently before the Scottish Parliament. In addition, a formal requirement should be placed on all owners and managers of land and water in receipt of government funds to abide by the principles of rights and responsibilities for the land.

## Environmental education and ethics

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30. Biodiversity and nature restoration are issues with profound implications for the lives of all individuals, especially the younger generations that will be left to develop innovative solutions to environmental crises. As such, Scotland has a responsibility to equip children with the knowledge and skill set necessary for tackling the most pressing environmental issues. The RSE supports the embedding of outdoor education, and greater knowledge and understanding of nature, within revisions of the biology, geography, and environmental studies parts of the curriculum for excellence. Imparting such knowledge on children aged 3–16 and beyond is an important component of the realisation of nature restoration in Scotland. Beyond school-aged children, Scottish universities must ensure that courses of training on any aspects impinging on the natural environment are modernised to ensure that students are better informed to place the natural environment in the context of their future work. Additionally, universities should cultivate deeper connections between students and their local environments, fostering a greater sense of responsibility for environmental restoration in the country. The RSE is concerned by the declining interest in, and teaching of, subjects like agriculture and forestry in universities across Scotland, given that they have a clear focus on environmental responsibility and stewardship. Engaging and educating individuals of all ages is crucial for the delivery of key actions in Scotland's nature restoration agenda.
31. In the development of its proposals for the forthcoming Natural Environment Bill, the RSE recommends that the Scottish Government considers the institution of a charter for nature, echoing the international Earth charter.

## Citizen science

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32. The RSE considers it important to create and further develop networks of information sharing and data collection on biodiversity at local and national levels. Individuals should be encouraged and supported as they actively engage in research critical to meeting biodiversity restoration goals for the future. For example, individuals looking to participate in research, such as the monitoring of species and habitats, should have the necessary resources and access to support networks. The Scottish biodiversity information forum<sup>8</sup> articulates a series of findings on biodiversity data collection which should guide improvements. These findings highlight ongoing challenges, including the inaccessibility of biodiversity data collected across Scotland, the lack of resources necessary for citizen science, and the shortcomings in infrastructure which stifles volunteering efforts. These challenges should be further explored and initiatives for improving citizen science in all related environmental areas should be sought.
33. Noting the evidence gaps that have been identified and the importance of information sharing and data networks, RSE urges the establishment of the Biodiversity Centre of Expertise announced by the Scottish Government in November 2020.<sup>9</sup> This is critically important given developments in data handling, collaborative programmes of work, and the expertise we have across Scotland's research and wider delivery communities. Indeed, this centre of expertise could support the implementation of the monitoring framework so vital in reporting on progress towards halting the loss of biodiversity by 2030. It could also capitalise on UK-wide and global work led from within Scotland. Scotland's leadership of the Edinburgh Declaration on post-2020 global biodiversity framework<sup>10</sup>, ratified at COP15, could be matched by the establishment of the centre of expertise.

## Additional information

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34. Any enquiries about this advice paper should be addressed to Gwynneth Redemann, Policy Advice Officer ([greemann@theRSE.org.uk](mailto:greemann@theRSE.org.uk)). Responses are published on the RSE website ([www.rse.org.uk](http://www.rse.org.uk))

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<sup>8</sup> <https://nbn.org.uk/wp-content/uploads/2018/11/SBIF-Review-Final-Report-and-Recommendations.pdf>

<sup>9</sup> <https://www.gov.scot/news/combating-biodiversity-loss/>

<sup>10</sup> <https://www.gov.scot/publications/edinburgh-declaration-on-post-2020-biodiversity-framework/>





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