

AIC+BRN

COMMENTS AND RECOMMENDATIONS ON IRELAND'S 4TH NATIONAL BIODIVERSITY ACTION PLAN DRAFT

The All Island Climate and Biodiversity Research Network (AICBRN) brings together researchers from a wide range of disciplines across the island of Ireland who are undertaking research in biodiversity and climate topics. The Network has received funding from the National Parks and Wildlife Service (NPWS) for five years, covering the lifetime of the 4th NBAP. The AICBRN's ambition is to provide a robust evidence base for biodiversity and climate trends and action. Funding has been secured from the NPWS for a Joint Secretariat between AICBRN and the National Biodiversity Forum (NBF), enabling coordination of the large-scale funding applications and connection to societal priorities needed to build evidence-based policy and action throughout government, industry, and society. The AICBRN recognises the need to address threats to biodiversity not directly related to climate, to enable resilience to climate change shocks. In the following, we provide key recommendations and comments within the following structure:

1. Summary of Key Recommendations
2. Comments on the General Structure of the Draft NBAP
3. Comments on the Interlinkages Between Climate and Biodiversity
4. More Detailed Comments

1. SUMMARY OF KEY RECOMMENDATIONS

- a. There is a strong need for increased ambition and strategic objectives that describe what good or better looks like for biodiversity in Ireland. Quantifiable actions with deadlines should then be put forward that will enable achievement of those objectives.
- b. NBAP needs to be a key vehicle to deliver on the national climate objective for “a climate resilient, **biodiversity-rich**, environmentally-sustainable and climate-neutral economy”.
- c. An all-island research hub for climate and biodiversity action should be established to build the evidence base for climate and biodiversity action to support the national climate objective and biodiversity ambition of the NBAP.
- d. In many cases the outcome and targets need to be more precisely specified. The actions, if successful, need to lead to the specified targets and outcomes, and the indicators need to give some basis for assessing the success of the action. This is not the case in the present draft.
- e. In addition to the envisioned positive outcome there needs to be a “consequences of failure” of the action where the diverse costs of failure to different sectors are outlined. A risk register approach, as is commonly used in project management, may be helpful here to highlight actions that, if unsuccessful, are likely to lead to serious consequences. Mitigation measures can then be put in place to mitigate failure.
- f. Add an action as follows: “A research hub for climate and biodiversity action be established to build the evidence base for climate and biodiversity action to support the national climate objective and biodiversity ambition”. The AICBRN will be named as an action contributor, however key funding stakeholders should be named including: HEA, NPWS, EPA, SFI, DAFM etc. to ensure that appropriate funding vehicles are put in place to enable this action.

- g. In the introduction the NBAP should explicitly recognise that a vision for a “biodiversity rich” outcome is stated in Ireland’s national climate objective and that national climate action plans should be held to account for achieving this outcome. This is a legislative basis for action on biodiversity. Further legislative basis for the NBAP could build on this step, with the NBAP contributing to the national climate objective as well as the conservation and restoration of biodiversity for other reasons.
- h. The NBAP needs very clear objectives that will achieve a “biodiversity-rich” economy; what does this look like? Identify clear biodiversity indicators (Habitats & Birds Directives reporting, species threat status, ongoing monitoring programmes for key habitats and species etc.) and ambitions for where they should be by the end of the 4th NBAP period.

2. COMMENTS ON THE GENERAL STRUCTURE OF THE DRAFT NBAP

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<i>Vision, p. 19</i>	<p>1. The vision is static. “Maintaining ecosystem services” is insufficient when we know that ecosystem services have already been seriously degraded. For example, the provision of clean water is at an unacceptable level and just maintaining it at this level is equally unacceptable.</p> <p>2. The Ireland in ‘2050’ vision reinforces an extended plan. It would be much better to focus on 2030 rather than 2050 and thus reflect the imperative for action.</p>	<p>1. Use more ambitious wording: “improving ecosystem services”.</p> <p>Consider using a stronger statement of environmental justice in the current phrase “delivering benefits essential for all people” as the benefits of ecosystem services need to be delivered fairly across society (e.g., access to high quality green/blue space) - “delivering essential benefits fairly to all people”.</p> <p>2. Objectives and actions need to be clearly time-bound, particularly to the period up to 2030.</p> <p>3. The plan doesn’t reach to 2030, so it would benefit from a statement that makes sure that issues raised in the current NBAP will be carried over to the next</p>

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		<p>plan, and progress recorded in the next plan is captured. Otherwise, programmatic memory is lost as is progress towards targets beyond the lifetime of the present plan.</p>
<p>Overall Framework: Outcome - Action-Indicator</p>	<p>1. We welcome the general structure of the draft NBAP and the ambition to deliver “the transformative changes required to the ways in which we value and protect nature”. However, as currently envisaged the outcome-action-indicator structure is not likely to help deliver the transformative changes needed.</p> <p>2. Action ownership is not identified for many targets. For example, <i>Action 4A2 (p.61)</i> mentions relevant departments, agencies, and relevant academic institutions North and South. With such broad ownership how can progress be tracked?</p> <p>3. Many of the actions are still open-ended and non-specific which will make them difficult to evaluate and/or not successful as indicators of the desired outcome. Improvement of the outcome-indicator structure needs to be undertaken to make it clear that if the action is successful (as per the specified indicator) that</p>	<p>1. The NBAP must specify action contributors and action owners as these are critical for accountability and monitoring. There is a difference between contributors and owners and this distinction needs to be clear. The main accountable body is the Biodiversity Working Group and therefore action owners need to be members of this body.</p> <p>2. In many cases the outcome and targets need to be more precisely specified. The actions, if successful, need to lead to the specified targets and outcomes, and the indicators need to give some basis for assessing the success of the action.</p> <p>3. Critically assess the impacts of actions as well as what might happen if actions are not fully successful. This would provide increased motivation to act.</p> <p>4. Number the targets so it is clear how actions are grouped into higher level targets and so that assessment can be made of whether the actions are sufficient to achieve that particular target.</p>

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	<p>the target will be achieved. In many cases this is not at all clear. For many of the indicators “the number of ...” a particular output is specified without any indication of how many is sufficient or any indicator of quality of output. For example, there may be a priority list of datasets needed for an adequate ecosystem service assessment, the output of a number of datasets is an insufficient indicator of the output of particular critical data sets.</p> <p>4. Targets must be achievable given the stated actions; in some cases, it is difficult to see how the actions will enable the target to be reached. For example, the target “All habitats and species are in, or moving towards Favourable status as required under the Habitats and Birds Directives with status assessments of Habitats and Species reflecting an increasing trend by 2030” is a target that could be strengthened (what is meant exactly by “an increasing trend”?) but the actions assigned to it are completely insufficient. 2A8 & 2A9 are about <i>ex situ</i> management which does not directly address habitat or species trends in</p>	<p>5. In addition to the envisioned positive outcome there needs to be a “consequences of failure” of the action where the diverse costs of failure to different sectors are outlined. A risk register approach, as is commonly used in project management, may be helpful here to highlight actions that, if unsuccessful, are likely to lead to serious consequences. Mitigation measures can then be put in place to mitigate failure.</p>

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	<p>the wild and 2A10 deals only with ÚnaG operational zones.</p> <p>5. One reason for the implementation gap is that the consequences of failing to meet targets and make progress on actions are not clear. We know that failures of actions lead to further degradation of biodiversity, with few if any further consequences explicitly mentioned. Examples of consequences of failure currently include: litigation in local, national, or international courts with consequent financial costs for the state (& tax payers), higher costs of utilities (e.g., water treatment), lower crop yields, health impacts for the public without access to high quality green and blue space for exercise and mental health etc. These very real consequences need to be made clear with action owners responsible for the consequences, action owners must be accountable for failure to achieve targets and make progress on actions.</p>	

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<p>Monitoring & Evaluation</p>	<p>1. We welcome the greater focus on monitoring and evaluation of the plan. Evaluation by the NBF is important and we view them as a forum in which to evaluate the scientific, social, governmental, and cultural outcomes of the NBAP, with the scientific evaluation (independently carried out) as one input into their overall evaluation. However, there is currently a lack of capacity for robust evaluation of the NBAP actions and their impact. We welcome the call for an independent scientific evaluation – however we question whether the NBF is the appropriate scientific body to carry this out. The NBF is comprised of a minority of scientists with the bulk of the membership being other important stakeholders in biodiversity and its management. All members of the NBF are there in a voluntary capacity and are not paid for their time and not provided with additional resources for evaluation.</p> <p>2. If the NBF is to be responsible for independent auditing of the actions then its composition must reflect the skills and expertise needed for this task and/or the auditing role may need additional skills to be added.</p>	<p>1. An independent scientific review of the NBAP will require additional resources to be provided to enable the NBF to commission evaluations of different dimensions of the plan.</p> <p>2. Terms of reference for the auditing/evaluation will need to be developed and agreed and should be added as an action in the “Monitoring & Evaluation” section. Potential for synergies and conflicts with climate action policy should be identified in this evaluation (e.g., see Gorman et al. 2022¹).</p> <p>3. Key monitoring mechanisms need to be connected with indicators of actions.</p> <p>4. Add another section to the “monitoring and evaluation” part of the plan that deals with adaptive responses to monitoring.</p>

¹ Courtney E. Gorman, Andrew Torsney, Aoibheann Gaughran, Caroline M. McKeon, Catherine A. Farrell, Cian White, Ian Donohue, Jane C. Stout, Yvonne M. Buckley, “Reconciling climate action with the need for biodiversity protection, restoration and rehabilitation”, *Science of The Total Environment*, Volume 857, Part 1, 20 January 2023, <<https://www.sciencedirect.com/science/article/abs/pii/S0048969722064154>>, accessed 7th November 2022.

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	<p>3. There needs to be a stronger justification of what the purpose of monitoring is – what will happen if monitoring shows that something is not going well? Is there a mechanism for adapting to the results of the monitoring? Over what timeframe can adaptations to the results of monitoring be made? Every 5-7 years or within the timeframe of the NBAP? While there is some acknowledgement of the need for adaptability in response to monitoring there is no mechanism explicit within the framework (P16/17) for re-evaluation of actions or redirection of funds in response to monitoring results. Without this mechanism there is a real risk that results from monitoring and evaluation will not be acted on. Monitoring alone will not solve the implementation challenge, monitoring needs to be linked to actions. For example, “If monitoring shows x, then y will be initiated”. On P18 the response to monitoring is not mentioned.</p>	
<p>Objective 1 - Adopt a Whole of Government, Whole of Society</p>	<p>1. We welcome the annual report to the Cabinet Committee on the Environment and Climate Change as an action, this will help with accountability. However, the role of the Biodiversity Working Group as stated here (p20) is weak “can examine interlinkages between</p>	<p>1. There needs to be an outcome around accountability of members of the BWG for the actions they are assigned and mechanisms for ensuring that members adequately report and evaluate the actions they are responsible for.</p>

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<p>Approach to Biodiversity, pp. 20-27</p>	<p>policies and departmental actions.” Members of the BWG have a strong role to play in implementing actions, monitoring, and evaluating outcomes and determining the consequences of failure to achieve targets and outcomes. The BWG collectively should be held accountable for failure to reach targets and implement actions as all action owners should be part of this group.</p> <p>2. <i>Action 1B2, p. 23</i>: The Biodiversity Working Group is a critical part of implementation of the NBAPs and is accountable for achievement of the actions. How will the Cross-Department Biodiversity Working Group (est. 2012) function with the proposed All-Island NESC working groups?²</p> <p>3. Current members of the National Biodiversity Forum are also members of the AICBRN but do not have a remit to represent AICBRN within the NBF.</p>	<p>2. There is a need for transparency on the role of the Biodiversity Working Group in the 4th NBAP. Add to the NBAP the Terms of Reference for the BWG, how often it meets, what has been achieved and the availability of minutes.</p> <p>3. An AICBRN representative should be formally invited to sit on the National Biodiversity Forum.</p>
<p>Objective 2 - Meeting</p>	<p>1. <i>Outcome 2A, p. 29</i>: large landholders and land managers in the State (Local government,</p>	<p>1. Clear targets and outcomes to be set for large state landowners and managers that they must achieve in addition to or even instead of current economic</p>

² National Economic & Social Council, Council Report, No.156, October 2021, “Collaboration on Climate and Biodiversity: Shared Island as a Catalyst for Renewed Ambition & Action”, pp. vii-viii, <http://files.nesc.ie/nesc_reports/en/156_shared_island_cbd.pdf>, accessed 7th November 2022.

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<p><i>Urgent Conservation and Restoration Needs, pp. 28-47</i></p>	<p>Coillte, Bórd na Móna, OPW) should be held to clear targets for conservation & restoration by the NBAP. State and semi-state actors need to be seen as leading the conservation and restoration of sites within their own control, in a way that is similar to the public sector being mandated to lead on climate action.</p> <p>2. <i>Action 2B9, p. 34</i>: no clear target for “increase in native tree planting”. There also needs to be a constraint stated here that afforestation will not take place on lands where the biodiversity values are dependent on maintaining the current habitat (e.g., semi-natural grassland, peatlands etc.). Afforestation for carbon needs to be consistent with biodiversity values (see Gorman et al. 2022³).</p>	<p>dividends. An ecosystem accounting framework can enable the quantification of non-market ecosystem services provided by appropriate land management.</p> <p>2. Add a quantitative target for the “increase in native tree planting” and indicate that it will only take place in areas appropriate for trees to increase biodiversity values.</p>
<p><i>Objective 5 - Enhance the</i></p>	<p>1. There is currently a lack of capacity for compiling and curating a robust evidence base</p>	<p>1. Add an action as follows: “A research hub for climate and biodiversity action be established to systematically review, synthesise and build the evidence base for</p>

³ Gorman et al, “Reconciling climate action with the need for biodiversity protection, restoration and rehabilitation”, Volume 857, Part 1, 20 January 2023, <<https://www.sciencedirect.com/science/article/abs/pii/S0048969722064154>>, accessed 7th November 2022.

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<p>Evidence Base for Action on Biodiversity, pp. 65-71</p>	<p>for many of the actions. The compiling of evidence is not systematic and is not focused. The capacity to add to the evidence base is scattered throughout government departments, individual research organisations and academic institutions. Without curation of the evidence base it is fragmented, difficult to find and often inaccessible. We call for new mechanisms that enable a strong evidence base to be built and curated for the implementation of existing and potential future solutions to the joint challenges of biodiversity and climate, good examples exist of systematic evidence review, e.g. Conservation Evidence at the University of Cambridge.⁴ The AICBRN commits to coordinating funding proposals that strengthen the evidence base for integrated climate and biodiversity action and suggest that an action be added to the plan as set out in the corresponding Recommendations.</p> <p>2. <i>Action 5A1, p. 66</i>: Future skills needs should be front loaded. Waiting until 2026 to undertake a skills gap analysis on future skills needed to address the biodiversity crisis represents a large delay. It should be one of the first things undertaken, so that funding can be directed</p>	<p>climate and biodiversity action to support the national climate objective and biodiversity ambition”. The AICBRN will be named as an action contributor, however key funding stakeholders should be named including: HEA, NPWS, EPA, SFI, DAFM etc. to ensure that appropriate funding vehicles are put in place to enable this action.</p> <p>2. Undertake a skills gap analysis as a matter of priority and direct resource to support training at 3rd and 4th levels.</p> <p>3. Explore how the AICBRN gap analysis can be exploited or built upon to help fast track research priorities.</p> <p>4. AICBRN to consult with relevant government bodies to help prioritize research to fill evidence gaps.</p>

⁴ Cambridge Conservation Initiative, <<https://www.cambridgeconservation.org/>>, accessed 7th November 2022.

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	<p>quickly to address those gaps, rather than wait four years to deliver this action. The AICBRN could deliver this skills gap given its academic focus.</p> <p><i>3. Action 5A2, p. 66:</i> Biodiversity research gaps for supporting conservation and restoration are identified and prioritised. The AICBRN has recently undertaken a gap analysis in the Climate and Biodiversity domains. This could be expanded to address this issue quickly and avoid reinventing the wheel. The indicators here reflect competitive research at the international scale, which is outside the control of academics undertaking the research and government agencies responsible for identifying the research needs. It is dependent on the academic research community aligning their research with the research needs in competitive and international programmes over which government does not have full control.</p> <p><i>4. Action 5B1, p. 67:</i> Formal representation by AICBRN on the NBF would help inform ongoing conservation needs assessments.</p> <p><i>5. Action 5B2, p. 67:</i> Data describing monitoring data should also be available to the academic</p>	

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	<p>sector for the purposes of research. Avoid the monetisation of this data for research purposes.</p> <p><i>6. Action 5B3, p. 67:</i> Ensure that the OPW collection of biodiversity data is appropriate, i.e., sufficiently well resolved and standardized in a way that makes it useful to answer ecological questions regarding the drivers of biodiversity change. Some exploration and application of how AI and remote sensing data might help to standardize collection of such data would move data collection to a scale that was commensurate with environmental data quantifying the physical environment.</p> <p><i>7. Action 5C1, p. 68:</i> The periodicity of monitoring is not described and is not without resource implications. Frequent monitoring will be more expensive, but trends are only detectable with frequent sampling. The scale and scope of what is to be sampled is not clear, e.g., biodiversity of insects, birds, vascular plants, or annex IV habitat or species distribution and status? Site based monitoring is indicated, but no detail is provided describing which groups will be studied.</p>	

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	<p><i>8. Action 5C2, p. 68:</i> Lack of clarity over which government departments will be involved. Responsibility for biodiversity is cross sectoral and some departments will be more involved than others. To increase accountability, be explicit about which government departments are expected to be key actors here.</p> <p><i>9. Action 5C3, p. 68:</i> Lack of detail describing which organisations will be responsible for implementing citizen science schemes and programmes. What are the relevant organisations for monitoring the activity? Citizen science programmes need to be led, and no clear lead organisations to collate and implement are identified.</p> <p><i>10. Action 5D1, p. 70:</i> The AICBRN is an existing network combining expertise across the biodiversity and climate domains that could provide the natural capital and ecosystem accounting expertise needed for the national assessment of ecosystems services. There is a duplication of effort here in establishing a parallel All-Island network. Avail of the expertise in the AICBRN and expand upon the networks activity to deliver this action.</p>	

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Current State of Actions	<p>The 3rd NBAP Report had 119 actions and 4th report references 98 of these as ongoing, eight implemented, and 13 limited/not progressed.</p> <p>It is not clear from this action plan which actions are carry overs from previous plans (because they weren't achieved in an earlier plan), and which are new plans unique to the 4th NBAP.</p>	<p>Some detail on actions not progressed or current state needs to be included in the plan. For example, <i>Actions 2A1 and 2A2 (p. 29)</i> would benefit from overall statements of current state.</p> <p>Continuity needs to be strengthened throughout. A traffic lighting system could be introduced for the actions, based on whether they are carry overs from the previous NBAP if they haven't been actioned.</p>

3. COMMENTS ON THE INTERLINKAGES BETWEEN CLIMATE AND BIODIVERSITY

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Introduction, pp. 3-6	<p>The interconnectedness of the climate and biodiversity crises should be highlighted in the introduction. For example see: IAP Statement (2021)⁵ where policy responses are outlined that will lead to benefits for both climate and</p>	<p>1. Include a statement on the interconnectedness of the climate and biodiversity crises in the introduction to the plan. Use policy recommendations from the IAP statement⁷ to demonstrate how climate and biodiversity action can be aligned and where biodiversity action is essential to achieving the national climate objective.</p>

⁵ Royal Irish Academy (RIA), InterAcademy Partnership (IAP) Statement (2021), 'Climate change and biodiversity interlinkages and policy options – Relevance to Ireland', <https://www.ria.ie/sites/default/files/iap-statement_2021-climatechange-and-biodiversity-interlinkages-and-policy-options-relevance-to-ireland.pdf>, accessed 7th November 2022.

⁷ RIA, IAP Statement (2021), 'Climate change and biodiversity interlinkages and policy options – Relevance to Ireland', <https://www.ria.ie/sites/default/files/iap-statement_2021-climatechange-and-biodiversity-interlinkages-and-policy-options-relevance-to-ireland.pdf>, accessed 7th November 2022.

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	<p>biodiversity action. Also see Gorman et al. 2022⁶ for an analysis of biodiversity considerations of climate action in Ireland.</p>	<p>2. In the introduction the NBAP should explicitly recognise that a vision for a “biodiversity rich” outcome is stated in Ireland’s national climate objective and that national climate action plans should be held to account for achieving this outcome. This is a legislative basis for action on biodiversity. Further legislative basis for the NBAP could build on this step, with the NBAP contributing to the national climate objective as well as the conservation and restoration of biodiversity for other reasons.</p>
<p>Objective 1 - Adopt a Whole of Government, Whole of Society Approach to Biodiversity, pp. 20-27</p>	<p><i>Outcome 1E, p.27:</i> we encourage recognition of the obligation to ensure a “biodiversity rich” country as per the national climate objective.⁸ It is unclear however what “biodiversity rich” entails in practice. There is obviously a role of the NBAP in ensuring this is achieved but more work needs to be done to connect biodiversity to the national climate objective. The NBAP should be mandated to achieve the “biodiversity rich” part of the national climate objective. Some of the outcomes in the NBAP are clear e.g., outcome 2A target 4, outcome 2C, others are vague using words such as strengthened, enhanced etc.</p>	<p>The NBAP needs very clear objectives that will achieve a “biodiversity-rich” economy; what does this look like? Identify clear biodiversity indicators (Habitats & Birds Directives reporting, species threat status, ongoing monitoring programmes for key habitats and species etc.) and ambitions for where they should be by the end of the 4th NBAP period.</p>

⁶ Gorman et al, “Reconciling climate action with the need for biodiversity protection, restoration and rehabilitation”, Volume 857, Part 1, 20 January 2023, <<https://www.sciencedirect.com/science/article/abs/pii/S0048969722064154>>, accessed 7th November 2022.

⁸ Climate Action and Low Carbon Development (Amendment) Bill 2021, <file:///C:/Users/Administrator/Downloads/127957_ab70a65d-68c1-4947-983b-babf920cc4dc.pdf>, pp. 7-8, accessed 7th November 2022.

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<p>Objective 2 - Meet Urgent Conservation and Restoration Needs, pp. 28-47</p>	<p>1. <i>Outcome 2E, p. 41</i>: This outcome is weak with just two targets and two actions. There is considerable work that needs to be done to identify desired states for restoration/rehabilitation, sites identified with restoration/rehabilitation potential and the evidence base for restoration/rehabilitation built up in an Irish context and in the context of a changing climate. Consideration needs to be paid to the changing nature of habitat baselines with climate change and the need for research on achievable states for habitat restoration projects.</p> <p>Restoration/rehabilitation may be done to mitigate or adapt to climate change (i.e., Nature-based Solutions), sustainable and biodiversity rich N-bS should be referenced as an action.</p> <p>2. Surprisingly no interim dates are included for any of the actions and indicators for all IAS targets (only 2030).</p>	<p>1. Add an action for a review of protected areas to determine the network's effectiveness under likely climate change scenarios. This should inform the selection of new areas for designation. The AICBRN can be named as a contributor to this action.</p> <p>2. <i>Outcome 2D, p. 39-40</i>: special consideration should be paid to species at risk of extinction due to climate change, including species which are currently relatively common or widespread, but which may become threatened in the future. Biobanking, seed banking and tissue banking initiatives may be much more effective if genetic diversity is conserved prior to declining status.</p> <p>3. <i>Outcome 2E, p. 41</i>: a review of current restoration projects is needed. Establishment of a restoration/rehabilitation evidence base which is openly accessible to all including community groups etc is needed to inform future efforts.</p> <p>4. <i>Action 2G3, p. 47</i>: there should be action on horizon scanning and implementation of pre-border management for potential new IAS, particularly in the context of climate change where recipient habitats may become more suitable for a wider range of IAS.</p> <p>5. Specify time-bound targets and actions in the short-medium term as well as long-term.</p>
<p>Objective 4 - Embed Biodiversity at</p>	<p>1. <i>Outcome 4A, p. 61</i>: None of the actions in 4A address ecosystem services. We need a better understanding of how biodiversity and abiotic</p>	<p>1. There needs to be an explicit statement in the introduction of the contribution that biodiversity and nature-based solutions can make to climate change mitigation and adaptation. There should be a strong statement that implementing</p>

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<p><i>the Heart of Climate Action, pp. 60-63</i></p>	<p>environment combine to determine ecosystem service supply, in order to assess the risk of ES depletion due to CC.</p> <p>2. <i>Action 4A2, p. 61</i>: How is the research evidence-base to be strengthened (vague) with an achievement indicator of “A more robust evidence-base of the current and future impacts of climate change on biodiversity” Where is this evidence-base logged and assessed for monitoring and implementation?</p> <p>3. <i>Action 4A3, p. 61</i>: Q3 report to the minister suggests that the action might be outdated already, is this a typo?</p> <p>4. <i>Outcome 4B, p. 62</i>: Climate change adaptation and mitigation measures contribute, where practical, to biodiversity and ecosystem conservation.</p> <p>This section lacks ambition and is rather weak relative to the urgency and importance of the climate change mitigation and adaptation needs. See Gorman et al. 2022⁹ for a recent assessment of the integration of biodiversity</p>	<p>the other actions in the NBAP which will strengthen the resilience of ecosystems and the protection of species and habitats are integral to lessening the overall impact of climate change on society and the economy. Actions taken to support biodiversity will prevent or slow down impacts of climate change on ecosystem services.</p> <p>2. <i>Outcome 4A, p. 61</i>: mitigation of risks to ES supply will require work to be done on mapping natural capital and its contribution to Ecosystem Services, this work should be incorporated into the national land use plan. Scenario analysis for ecosystem services under climate change should be undertaken. Management plans for the maintenance of ecosystem services need to be put in place and coordinated with the protection of land for biodiversity and the restoration of ecosystems.</p> <p>3. <i>Action 4A2, p. 61</i>: AICBRN coordinated research could deliver a robust evidence base of the current and future impacts of climate change on biodiversity; particularly, if we were to take a systematic approach similar to the one adopted by Bill Sutherland and the Conservation Evidence unit he has established. That alone is not enough, there needs to be an opportunity for the research community to then use that evidence and do something creative with it in an exploratory way, e.g., synthesis groups that work with the information generated.</p> <p>4. <i>Action 4A2, p. 61</i>: the evidence-base should be made easily available to citizens and organisations – for example see</p>

⁹ Gorman et al, “Reconciling climate action with the need for biodiversity protection, restoration and rehabilitation”, [Volume 857, Part 1](https://www.sciencedirect.com/science/article/abs/pii/S0048969722064154), 20 January 2023, <<https://www.sciencedirect.com/science/article/abs/pii/S0048969722064154>>, accessed 7th November 2022.

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	<p>contributions into climate action in an Irish context. It is unclear how the three actions represent the further ambition needed.</p> <p>5. <i>Action 4B1, p. 62</i>: Identifies a single type of habitat for restoration and the creation of habitat. What about woodlands, saltmarshes, linear features such as hedgerows and riparian strips in farmland? Is the problem that no single body can be identified to take those on?</p> <p>Bórd na Móna are well on their way towards peatland restoration anyway. The action lacks ambition and is hard to prove – as it takes decades for ecosystems to be rehabilitated. The target states this will be done by 2026. The stated metrics to assess seem reasonable, but reflooding a site does not equate to rehabilitation.</p> <p>6. <i>Action 4B2, p. 62</i>: We welcome the commitment for OREDP II to include Biodiversity representatives. It is however unclear how many and how they will be identified. Will representatives have a genuine voice if they are joining the process in later stage? How do you ensure that biodiversity experts have a voice that is heard? The reconciliation of climate and</p>	<p>https://www.conservationevidence.com/ for a fully searchable and referenced evidence base for conservation.</p> <p>5. <i>Action 4A3, p. 61</i>: AICBRN to contribute to this review and score government performance in the National Adaptation Framework.</p> <p>6. <i>Outcome 4B, p. 62</i>: set more ambitious targets and appropriate actions, draw on evidence on integrating biodiversity into climate action for clear actions that can be taken.</p> <p>7. <i>Action 4B1, p. 62</i>: identify other Nature-based Solutions incorporating biodiversity into climate action (e.g., see Gorman et al. 2022¹⁰), such as restoration of other high carbon habitats (woodlands, hedgerows, riparian strips, saltmarshes, permanent high nature value grassland).</p> <p>8. <i>Action 4B2, p. 62</i>: AICBRN and NBF to recommend appropriate biodiversity experts and provide a link back to the AICBRN and NBF to ensure appropriate offshore development for biodiversity and climate action.</p> <p>9. <i>Outcome 4C, p. 63</i>: specify outcomes for both climate change mitigation and adaptation.</p> <p>10. <i>Outcome 4C, p. 63</i>: strengthen these actions, for example legislation that mandates the implementation of NbS through government bodies and local authorities.</p>

¹⁰ Ibid.

Subject	Analysis/Critique	Recommendations
	<p>biodiversity action and a just transition are key interests of members of AICBRN.</p> <p>7. <i>Outcome 4C, p. 63</i>: the title references only climate change adaptation whereas some of the actions are more relevant to climate change mitigation.</p> <p>8. <i>Action 4C1, p. 63</i>: This is simply an audit of actions that are being undertaken by a range of other bodies. It does not drive the action or implementation of Nature-based Solutions. Climate Action Regional Offices will only 'promote' NbS, it needs to be stronger than this.</p> <p>9. <i>Action 4C2, p. 63</i>: The restoration programmes for saltmarshes are assessed by expenditure, not by results of habitat created. Other metrics refer to the area of the programme, not of new habitat created. This could also fall under Outcome 4B in general through the creation of new habitat. DHLGH will only promote, not legislate for NbS.</p> <p>10. <i>Action 4C3, p. 63</i>: Raised bog restoration an audit and review of the Raised Bog Special Areas of Conservation Management Plan. What are the consequences of the review? If action is</p>	<p>11. <i>Action 4C3, p. 63</i>: commit to implementing results of the review of the Raised Bog Special Areas of Conservation Management Plan.</p>

Subject	Analysis/Critique	Recommendations
	recommended by the review, will it be implemented?	
Objective 5 - Enhance Biodiversity at the Heart of Climate Action, pp. 65-71	1. <i>Action 5A2</i> : There is a role here for AICBRN in identifying relevant research gaps, as well as other potential contributors. Whose responsibility is it to coordinate this action? Who decides on the priorities? What is the process? Who is the action owner?	1. A research needs prioritisation should focus on the value of the information needed – identification of areas where knowledge is critical for improved performance.

4. MORE DETAILED COMMENTS

Subject	Analysis/Critique	Recommendations
Introduction	Needs better referencing to ensure that a robust science base is demonstrated. E.g., “95% of land surface modified by activities such as...”, “resulting in very significant declines in the population sizes...” are unreferenced.	

Subject	Analysis/Critique	Recommendations
	<p>Biodiversity change, not just loss, is important. For example, the invasion of non-native species changes the communities that are invaded and can indeed change the ecosystem, even if the invader is at low abundance and has not yet led to biodiversity loss. The introduction of non-native species can actually increase biodiversity (adding additional species to the community) but the long-term consequences of this biodiversity change can be severe for ecosystem function and species loss in the long-term. The disturbance and reassembly of communities into different states is biodiversity change but not necessarily loss of species. The change in community or ecosystem state could be important for ecosystem service delivery and the maintenance of threatened populations. I suggest that biodiversity loss and change be referred to together.</p>	

Subject	Analysis/Critique	Recommendations
<p>Objective 1 - Adopt a Whole of Government, Whole of Society Approach to Biodiversity, pp. 20-27</p>	<p>1. <i>Action 1C4, p. 24</i>: “other policy areas” is too broad.</p>	<p>1. <i>Action 1C4, p. 24</i>: call out priority policy areas such as marine, agriculture, climate, infrastructure development, forestry, tourism etc.</p> <p>2. <i>Action 1D4, p. 25</i>: wording here should be changed to terrestrial and ‘aquatic’ (marine and freshwater) biodiversity to highlight the importance of freshwaters.</p>
<p>Objective 2 – Meet Urgent Conservation and Restoration Needs, pp. 28-47</p>	<p>1. <i>Action 2A8, p. 30</i>: while <i>ex situ</i> conservation measures can be important, they should not be perceived as (or actually) replacing or detracting from the primary focus of conservation measures which should be <i>in situ</i>.</p> <p>2. <i>Action 2A8, p. 30</i>: aquaria are mentioned but action ownership not detailed. What about freshwater biodiversity e.g., Crayfish Arks?</p> <p>3. <i>Action 2A9, p. 30</i>: are both 8 and 9 an acceptance of in-situ extinction? Is Dublin Zoo in an urban setting the right place for this initiative (space wise) - why not Fota?¹¹</p>	<p>1. <i>Action 2A8, p. 30</i>: highlight freshwater biodiversity also.</p> <p>2. <i>Outcome 2B, p. 32</i>: need to add “restored and resilient to future threats including climate change” to read “biodiversity and ecosystem services in the wider countryside are conserved, restored and resilient to future threats including climate change”.</p> <p>3. <i>Action 2B1, p. 32</i>: Riparian needs to be mentioned specifically to highlight its significance.</p> <p>4. <i>Action 2B3, p. 33</i>: State what the current % of farmland with biodiversity rich landscape features and review targets for biodiversity rich landscape features.</p>

¹¹ Fota Wildlife Park, <[Home - Fota Wildlife Park](#)>, accessed 7th November 2022.

Subject	Analysis/Critique	Recommendations
	<p>4. <i>Action 2A10, p. 31</i>: Údarás na Gaeltachta is singled out. What about other land model targets – Local Area Plans / Landscape Characterisation Assessments / Tidy Towns?</p> <p>5. <i>Action 2B3, p. 33</i>: an “organic farms target of 7.5% and at least 4% of agricultural land has biodiversity rich landscape features by 2030” – this is a lamentably low target. Are these low targets consistent with the new CAP and if so, can they be increased through other measures?</p> <p>6. <i>Action 2B4, p. 33</i>: pesticides to be reduced by 50% relative to an established baseline. Needs clarity on the baseline, how, when and by whom is it set?</p> <p>7. <i>Action 2B6, p. 33</i>: the NBAP states Implement a peatland strategy - this doesn't seem sufficient.</p> <p>8. <i>Action 2B13, p. 34</i>: seems vague. Where are numbers/extent of projects being logged/monitored?</p>	<p>5. <i>Action 2B4, p. 33</i>: specify the baseline, who defines the baseline and when it is set.</p> <p>6. <i>Action 2B13, p. 34</i>: revise the target and actions to be more specific.</p> <p>7. <i>Action 2B14, p. 34</i>: clarify the additionality of these actions and add an obligation to trial NbS for flood mitigation.</p> <p>8. <i>Action 2G3, p. 47</i>: a stronger emphasis on appropriate management of invasive species across all protected areas.</p> <p>9. <i>Action 3C8, p. 57</i>: there is an urgent need for an independent review of the biodiversity impact of Origin Green and recommendations for the future.</p>

Subject	Analysis/Critique	Recommendations
	<p>9. <i>Action 2B14, p. 34</i>: is the OPW being tasked with natural flood management assessment? Is this appropriate? It is unclear how these actions go beyond what OPW is currently doing. There are no obligations for OPW to implement any Nature-based Solutions to flood management.</p> <p>10. <i>Action 2B15, p. 35</i>: The OPW currently assesses for initial drainage and maintenance implications for biodiversity – so what exactly changes?</p> <p>11. <i>Outcome 2C, p. 36</i>: the NBAP repeats RMBP material – this does not seem sufficient.</p> <p>12. <i>Action 2G1, p. 47</i>: “Establish an invasive alien species (IAS) unit in DHLG” – why no date for establishment given, just a 2030 target? No interim dates for actions and indicators for all IAS targets (only 2030).</p> <p>13. <i>Action 2G3, p. 47</i>: “remove stands of invasive species from native woodlands and peatlands within Protected Areas and National Parks”. Why is this restricted to woodlands and peatlands?</p>	

Subject	Analysis/Critique	Recommendations
	<p>Why are grasslands and aquatic environments excluded?</p> <p>14. <i>Action 3C8, p. 57</i>: it is unclear whether and how Origin Green is contributing for biodiversity.</p>	
<p>Objective 4 - Embed Biodiversity at the Heart of Climate Action, pp. 60-63</p>	<p>1. <i>Action 4B2, p. 62</i>: OREDP II plan will include Biodiversity representatives. How many, how identified? Open Call, M/F, N/S, sectoral? Perhaps an AICBRN role here?</p> <p>2. <i>Action 4B3, p. 62</i>: how can monitoring agriculture bioenergy sources maximise biodiversity benefits and minimise negativity? What sort of monitoring?</p>	
<p>Objective 5 – Enhance the Evidence Base for Action on Biodiversity, pp. 65-71</p>	<p>1. <i>Action 5A2, p. 66</i>: surely the 4th NBAP should identify national biodiversity research priorities? Why is ‘Publication of national biodiversity research priorities’ a sub-action under an objective?</p> <p>2. <i>Action 5A3, p. 66</i>: national inventory of funding opportunities - who owns this action? Timeline?</p>	<p>1. Many of these targets could clearly be the core work plan in an SFI Climate/Biodiversity Hub application.</p> <p>2. <i>Action 5A1, p. 66</i>: “identify biodiversity skills gaps” – an AICBRN hub member could participate in this application to EGFSN. Action ownership currently only identified as ‘relevant organisations’</p> <p>3. <i>Action 5A3, p. 66</i>: a potential task that AICBRN could draw together.</p>

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	<p>3. <i>Outcome 5B, p. 67</i>: citizen science is currently implemented sporadically north and south and needs a national framework to strengthen and supports clearly identified.</p> <p>4. <i>Action 5B1, p. 67</i>: the NBF is referred to as a research organisation – as far as I’m aware NBF does not conduct research. This action is very vague, and it is not clear who has responsibility for this. How will prioritisation of conservation needs assessment be done and resources allocated?</p> <p>5. <i>Action 5B5, p. 67</i>: there is no real justification for this list of research projects, e.g., “horticulture” and why they are priorities for biodiversity. It reads as a shopping list of projects that are already planned or underway.</p> <p>6. <i>Outcome 5C, p. 68</i>: “The valuable contributions from citizen science programmes and volunteer data projects will also be supported” does not include any detailed identification of such supports.</p>	<p>4. <i>Outcome 5B, p. 67</i>: standardise data collection approaches including citizen science.</p> <p>5. <i>Action 5B1, p. 67</i>: there should be a dedicated project to determine conservation needs of various stakeholders mentioned in the NBAP.</p> <p>6. <i>Action 5B3, p. 67</i>: it would be more helpful to identify key biodiversity data sources that should be provided by particular time points rather than specifying particular organisations will make their datasets available. Surely we should have consensus around what data is needed and then mandate particular organisations/agencies to have responsibility for supplying them. For example, “Habitat maps at x resolution to be made freely available by DATE”.</p> <p>7. <i>Outcome 5D, p. 70</i>: We really need an assessment of what the data needs are for a national assessment of ES, what are the key data sets, are they available, where can they be accessed, what is the spatial resolution, can they be used? What are the gaps?</p>

Subject	Analysis/Critique	Recommendations
	<p>7. <i>Action 5C1, p. 68</i>: development of a programme is weak - it should be underway within the lifetime of this plan.</p> <p>8. <i>Action 5C3, p. 68</i>: “A more robust set of citizen science managed initiatives”. This is a vague KPI - who will deliver these and how will they be monitored?</p> <p>9. <i>Action 5D1, p. 70</i>: Natural Capital Ireland is already in existence and a network of experts already exists – why reinvent the wheel?</p>	
<p><i>Objective 6 - Strengthen Ireland’s Contribution to International Biodiversity Initiatives, pp. 73-77</i></p>	<p>1. P. 14: We welcome the highlighting of the importance of tackling biodiversity issues at an all-island scale and the need for enhanced partnerships for nature. The AICBRN was formed to provide exactly that all-island focus on tackling climate and biodiversity challenges together.</p> <p>2. <i>Outcome 6A, p. 74</i>: we welcome the support for the AICBRN.</p>	<p>1. <i>Outcome 6D, p. 77</i>: there should be a prioritised list of data contributions with progress measured as the proportion of these achieved.</p>

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