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Review of Ireland's Adaptation Scorecard

Alignment with the revised National Adaptation Framework, Sectoral Adaptation Plans and Local Authority Climate Action Plans

January 2026

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Executive Summary

This report presents a full review of the design and implementation of the CCAC Adaptation Scorecard, to ensure it remains an effective annual monitoring tool for adaptation over the 2026-2030 period. The review responds to the need to align the scorecard with updated policy frameworks as well as some practical needs identified by the Secretariat including opportunities to streamline the process and to incorporate a more effective review of local government performance.

The review comprised three key components:

1. an assessment of the updated policy framework,
2. a stakeholder engagement exercise and,
3. an examination of international best practice.

994 adaptation actions across local authority climate action plans (LACAPs), updated sectoral adaptation plans (SAPs) and the national adaptation framework (NAF) were mapped to a proposed new categorisation framework. This laid the foundation for the stakeholder engagement exercise, by forming the basis of a semi-structured stakeholder interview guide that was issued in advance to 31 key stakeholders. A number of recurring messages emerged, including:

- The competitive nature of the ranking in the current approach was viewed as a barrier to collaboration and shared learning,
- Assessment based on an annual snapshot of progress was not viewed as reflective of the nature and delivery of adaptation measures,
- Local authorities were generally supportive of aggregated CARO assessment provided this did not create competition or ranking within the sector,
- Sub-sectoral assessment was not supported due to the integrated nature of adaptation action across sub-sectors and associated governance structures,
- The introduction of quantitative indicators is desirable but not yet considered feasible,
- Cross-sectoral and multi-level coordination is essential to address complex and cascading risks,
- Evaluation should assess overall progress towards resilience, measured against key enablers including risk quantification and mapping,
- Online facilitation was generally supported provided it is accompanied by an editable questionnaire to enable wider internal circulation and collation across contributing sectoral stakeholders.

International analysis recommends designing a system that is feasible given existing data, capacity and resources noting this may limit focus on processes and outputs in the first instance before incorporating indicators and long-term outcome monitoring. Comparative international examples report an overall direction of travel rather than a ranking and consider whether important enablers of effective implementation are in place while also identifying barriers to progress.

A number of key recommendations are presented for Ireland's revised Adaptation Scorecard. These include:

- Develop a stakeholder relevant questionnaire optimised for completion by all local authorities prior to aggregation at CARO level,
- Reduce the prominence of ranking to encourage collaboration and shared learning across sectors,
- Improve visibility of sub-sectoral implementation without moving to sub-sectoral assessment,
- Focus on resourcing challenges (financial, staffing, skills and expertise) rather than expenditure,
- Incorporate assessment of major emergency planning and governance instruments,
- Request and support the dissemination of case studies,
- Provide an annual information/training webinar for respondents to support consistency and buy-in,
- Maintain the existing, highly valued engagement and feedback mechanisms
- Introduce cumulative assessment supported by annual reporting,
- In the absence of agreed indicators, develop an interim assessment based on cumulative staged progress,
- Develop an online submission and data portal, supported by an editable offline questionnaire and crucially a well-considered data architecture.

This report proposes revised categories of assessment and a new questionnaire designed to reduce overlap, better reflect the delivery of adaptation measures and to support online submission with consistent and transparent evaluation. The categories are structured to reflect progress from enabling conditions (building adaptive capacity) through to tangible interventions (delivering adaptation). Consideration of priority risks, aligning with the national climate change risk assessment, is central to this new framework. A single questionnaire, relevant to sectors and local government is proposed with structured answer formats to reduce duplication and improve consistency, while also providing the basis for an underlying data architecture to support online submission and a dashboard.

The proposed approach enables assessment across the four CARO regions, improving the effectiveness of local government reporting within existing resourcing constraints. A distinct stakeholder coordination category strengthens assessment of cross-sectoral and multi-level coordination and major emergency planning instruments. A small number of quantitative indicators are derived directly from questionnaire responses, thereby introducing quantitative reporting without imposing indicators or additional reporting burden on respondents. The revised ‘delivering adaptation’ category is intended to capture structured case studies in support of shared learning, linking to the priority risks, scale of resilience benefit and including implementation and operational challenges, outcomes and lessons learned.

Clear staged qualitative evaluation criteria, based on the existing traffic light approach, are provided for each question and aim to improve transparency, consistency and objectivity in the evaluation process. To support aggregation and trend analysis, it is proposed these are converted to a semi-quantitative score to enable consistent reporting of progress across sectors. This also provides flexibility to introduce weighting between categories while maintaining focus on the overall direction of progress rather than competitive ranking.

Finally, to support implementation, it is recommended that a focused and time-limited working group is established to operationalise the revised scorecard in 2026. This would review in detail and revise/approve the proposals contained in this report. It would also scope the requirements for online dashboard reporting to ensure the questionnaire structure and response fields align

with the necessary underlying data architecture needed to support future querying and data analysis.

1 Introduction

The purpose of this report is to review the adaptation scorecard and to propose a revised design and structure so that it remains a robust, policy-relevant tool for tracking the implementation of climate change adaptation policy over the period 2026–2030. Drawing on a comprehensive review of Ireland's newly updated adaptation policy framework, an international review of best practice in adaptation monitoring and scorecard approaches, and 31 interviews with local authority, sectoral and national stakeholders, the report develops a revised framework for the Adaptation Scorecard. This includes proposed categories of assessment, a proposed approach to introduce quantitative indicators, options for an online model, and refinements to the ranking and evaluation process, as well as consideration of how action at a local and sub-sectoral level can be better reflected.

The report's primary purpose is to provide the Secretariat to the Climate Change Advisory Council with clear, evidence-based recommendations on the future design and implementation of the Adaptation Scorecard, so that it can more effectively:

- Assess progress in implementing adaptation policy across government departments, agencies and local authorities;
- Support learning and improvement in adaptation practice over time; and
- Monitor Ireland's progress towards climate resilience in a transparent and comparable way during 2026–2030.

1.1 Policy context and rationale for review

The Climate Change Advisory Council's Adaptation Scorecard was developed in 2021 to measure annual progress in the implementation of Ireland's climate change adaptation policies. It was designed to assess delivery of the first National Adaptation Framework (NAF, 2018), the associated Sectoral Adaptation Plans covering the period 2019–2025, and Local Authority Adaptation Strategies for 2019–2024. The scorecard is currently implemented through three questionnaires, issued to: (i) lead departments and agencies responsible for Sectoral Adaptation Plans, (ii) the Department of Climate, Energy and the Environment (DCEE), and (iii) the County and City Management Association (CCMA) and Climate Action Regional Offices (CAROs) on behalf of local government. Progress is assessed across three broad categories: (i) governance and resourcing, (ii) risk and adaptive management, and (iii) policy implementation and mainstreaming. While the tool has been refined incrementally over 2021–2025, its core structure and categories have been kept broadly consistent to allow comparison across years. With the exception of the 2022 cycle, the scorecard has been implemented in-house by the Council Secretariat.

Since 2021, the wider policy landscape for climate adaptation in Ireland has evolved significantly. Ireland's second statutory National Adaptation Framework was approved by Government and published in June 2024, replacing the 2018 Framework. The 2024 NAF sets out the national strategy to build a climate-resilient economy by 2050.

> *"Climate resilience is defined as the capacity of a system, whether physical, social, or ecological, to absorb and respond to climate change and, by implementing effective adaptation planning and sustainable development (including governance and institutional design), to reduce the negative climate impacts while also taking advantage of any positive outcomes".* National Adaptation Framework 2024

The revised NAF strengthens the emphasis on risk assessment (including the National Climate Change Risk Assessment), prioritised investment in adaptation, and clearer governance arrangements across sectors and levels of government. It also required the preparation of new Sectoral Adaptation Plans and provides updated guidance on how sectors and local authorities are to align with national objectives.

At local level, the Climate Action and Low Carbon Development (Amendment) Act 2021 (herein after referred to as the Climate Act) places a statutory obligation on each local authority to prepare a Local Authority Climate Action Plan (LACAP), consistent with the most recent National Climate Action Plan and National Adaptation Framework. All 31 local authorities adopted their plans by early 2024. These plans are intended to address, in an integrated way, both mitigation of greenhouse gas emissions and climate change adaptation, and to strengthen alignment between national climate policy and effective local action. They are guided by principles of being ambitious, action-focused, evidence-based, participative and transparent, and include requirements such as the designation of decarbonising zones and the establishment of local governance and delivery structures.

Sections 6 and 7 of the Climate Act establish the requirements for the preparation of Sectoral Adaptation Plans (SAPs) and ten new SAPs for the period 2025–2030, relating to 13 priority sectors were published in Q4 2025. These plans are informed by Ireland's first National Climate Change Risk Assessment (NCCRA) published in 2025 and relate to the following sectors:

- Agriculture, Forestry and Seafood
- Biodiversity
- Built and Archaeological Heritage
- Communications Networks
- Electricity and Gas Networks
- Flood Risk Management
- Health
- Transport Infrastructure
- Tourism
- Water Services and Water Quality

Together, these are intended to provide a more comprehensive, risk-based and coordinated approach to adaptation across Ireland.

This evolving policy framework has important implications for the Adaptation Scorecard. There is a need to more clearly assess the place-based nature of local climate action, and to account better for variations across sub-sectors where activities, resources and progress can differ substantially.

The review also aims to respond to a series of practical needs identified by the Secretariat and stakeholders: making the questionnaires more concise, targeted and quantitative; refining the categories used so they better reflect the range of adaptation and resilience activities while

avoiding overlaps; updating marking criteria, rating scales and aggregation approaches (including for sectors with diverse sub-sectors); strengthening engagement processes with departments, agencies and local authorities; exploring options for a more user-friendly, potentially online system; all within the constraints of available resources. Taken together, these considerations provide a strong rationale for revising the scorecard so that it remains an effective tool to monitor annual progress towards climate resilience over 2026–2030 and to support learning and continuous improvement across Ireland's adaptation system.

2 Methodology

The review of the Adaptation Scorecard comprised three key components:

1. an assessment of the updated policy framework,
2. a stakeholder engagement exercise to capture insights from the full range of stakeholders, including local authorities, sectors, the CCAC Secretariat and key members of the CCAC Adaptation Committee, and
3. an examination of international best practice.

An earlier workshop, held in September 2023, brought together scorecard respondents from multiple sectors and local authorities to reflect on the implementation of the Adaptation Scorecard and to generate recommendations for its future development. While this workshop did not form part of this review process, its key recommendations informed the design and focus of the stakeholder engagement exercise. In particular, these recommendations highlighted the need to clarify the vision and purpose of the scorecard (e.g. whether it should primarily measure the performance of Departments and local authorities in implementing adaptation, or serve as an independent assessment of overall progress on adaptation); improve transparency in the evaluation process; enhance opportunities for cross-sectoral learning and continuous improvement; address the lack of defined key performance indicators (KPIs); and consider how best to deal with disparate sectors that are currently assessed together (e.g. Agriculture, Forestry and Seafood).

The review also drew on a case study currently under review for publication[1], in relation to the role of operational report cards in improving policy implementation, governance outcomes and long-term progress towards policy (in this case climate adaptation) goals. The findings from this case study emphasise the importance of designing report cards that are accessible, reliable and relevant to the organisations being assessed, and that are aligned with stakeholder priorities and local context. The study further recommends expanding the scope and inclusivity of the assessment to reinforce connections between local, sectoral and national action, and adopting a sub-national comparative approach to enable analysis across local authority areas and sectors.

The key issues arising from the September 2023 workshop and the emerging literature were considered across all three components of this review, to ensure that the review addresses stakeholder concerns and provides recommendations aimed at enhancing the role of the

[1] Augustenborg, C.A., P. Lentz and A. Pender *(In Review)* Organizational Report Cards as Tools for Social Accountability in Environmental Policy. *Administration & Society*. Submitted: 19 January 2025.

Adaptation Scorecard in supporting effective policy implementation and improved governance outcomes.

2.1 Policy review

The purpose of this policy review was to develop a detailed understanding of the updated policy framework, including sectoral and locally specific objectives and actions. This understanding was used to inform the stakeholder engagement exercise and to establish a benchmark against which international best practice could be assessed. The review covered the following documents:

- The National Adaptation Framework, 2024[2]
- 10 Sectoral Adaptation Plans, 2025[3]
    - Agriculture, Forestry and Seafood
    - Biodiversity
    - Built and Archaeological Heritage
    - Communications Networks
    - Electricity and Gas Networks
    - Flood Risk Management
    - Health
    - Transport Infrastructure
    - Tourism
    - Water Services and Water Quality
- 31 Local Authority Climate Action Plans[4]
- CARO Adaptation Sectoral Report of the Local Authority Climate Action Plans[5]

A total of 994 adaptation actions, objectives and associated KPIs / indicators (where applicable) were catalogued across the policy documents reviewed (see separate MS Excel file). This comprises 540 actions from the 31 LACAPs, 437 actions from the 10 SAPs, and 17 actions from the NAF.

To ensure the scorecard is accessible, reliable, and relevant to organisations being assessed, the structure and framing of actions within the plans were analysed to identify opportunities for a commonly observed framework. This work explored the potential to develop new assessment categories for the adaptation scorecard that apply across scales, strengthening the alignment between local, sectoral and national action. It also considered the scope for shared quantitative indicators to support these categories, where measures could be applied consistently across different scales.

Across the LACAPs actions were commonly (although not consistently) structured around five overarching goals or objectives:

[2] https://assets.gov.ie/static/documents/national-adaptation-framework-2024-0fa761a3-84e5-4bcf-ac40-0f91f6431ae8.pdf
[3] https://www.gov.ie/en/department-of-climate-energy-and-the-environment/campaigns/sectoral-adaptation-planning/
[4] https://www.caro.ie/local-authority-climate-action/local-authority-climate-action-plans-2024-2029-(1)/local-authority-climate-action-plans-2024-2029-(1)
[5] https://www.caro.ie/getmedia/cfd867f5-900e-4acd-9805-e2bcdde5f714/Adaptation-Sectoral-Report.pdf.aspx

- Governance and leadership
- Sustainability and resource management
- Built environment, energy and transport
- Communities: resilience and transition
- Natural environment and green infrastructure

However, analysis indicated substantial overlap between these categories. Local authorities varied in how they classified actions, and many broadly comparable actions (e.g. flood protection works, emergency planning and urban greening) were assigned to different categories across different plans, often spanning multiple goals and objectives. In addition, the LACAPs generally did not distinguish between enabling actions for climate adaptation (such as capacity building and securing funding) and implementation measures delivering tangible adaptation outcomes (such as nature-based solutions (NBS) or community resilience hubs).

At the sectoral level, the way actions were framed around overarching goals and objectives varied more widely, in part because the SAP guidelines did not provide specific direction in this regard. However, four of the SAPs[6], which together account for over 60% of all sectoral adaptation actions, apply a common framework that distinguishes between actions focused on 'building adaptative capacity' and those aimed at 'delivering adaptation' (see Figure 1). These are supported by several secondary categories as shown in Figure 1.

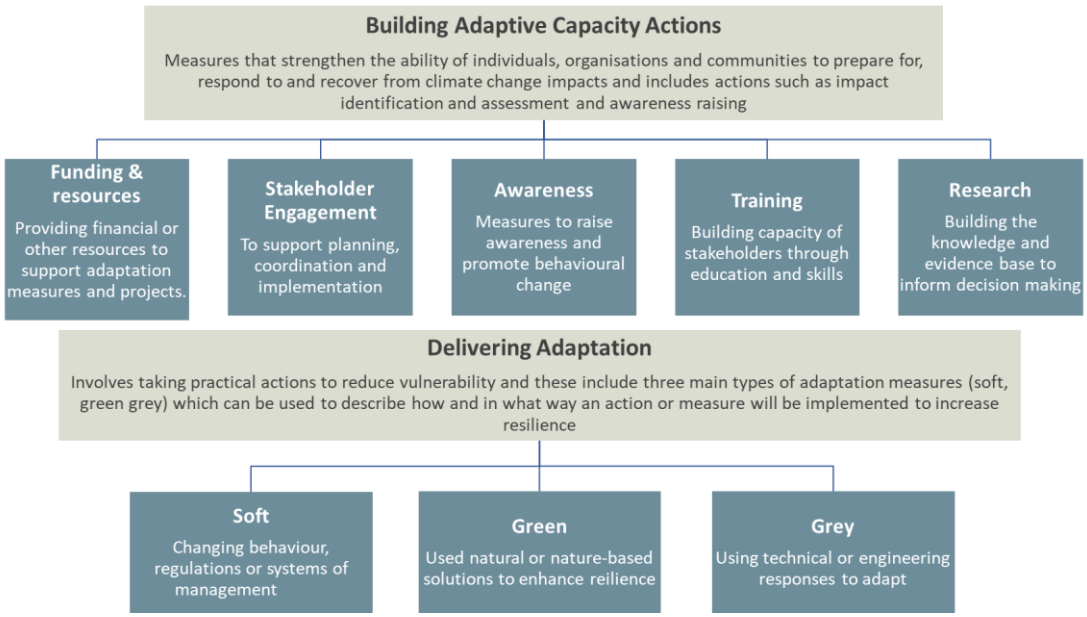


Figure 1: Emerging categorisation framework

Given the clear applicability of these categories to the majority of sectoral adaptation actions, and their strong potential relevance to actions across the 31 LACAPs, the framework was examined in greater depth as the basis for new categories of assessment within the revised scorecard.

All 994 adaptation actions across the LACAPs, SAPs and NAFs were mapped to this framework to evaluate its ability to capture the full range of adaptation activity across local, sectoral and

[6] Agriculture, Forestry and Seafood, Electricity and Gas Networks, Biodiversity and Water Quality and Water Services Infrastructure

national scales, and to identify gaps and areas of potential overlap. The mapping confirmed that under this framework every action could be assigned to a primary category and one secondary category. However, the exercise also highlighted potential for confusion between the 'soft' category and some of the sub-categories under 'building adaptive capacity'. This ambiguity was evident in the SAPs that had already applied this framework to categorise their actions, where the 'soft' category was used inconsistently across sectors. This reinforced the need for clearer category definitions for the revised scorecard to support consistent interpretation across all respondents

In addition to categorising actions, each action was also assigned a sector and subsector as part of the mapping exercise. This was intended to identify the extent to which local-level adaptation activity is directly relevant to the sectors, thereby strengthening the link between local and sectoral action. The implementation timeline provided for each action was also recorded as part of the exercise. Of the 994 actions, 447 (45%) were identified as ongoing or delivered annually, 36 (4%) specified no completion timeframe, and the remaining 511 (51%) included a stated year of completion. For consistency, where plans specified a quarter or month, the timeline was simplified to the corresponding year for the purposes of this analysis

A number of key findings emerged.

1) **The LACAPs place greater emphasis on measures that deliver adaptation action than on measures that build adaptive capacity (see Figure 2).** This reinforces the importance of strengthening how local government performance is assessed in the revised scorecard.

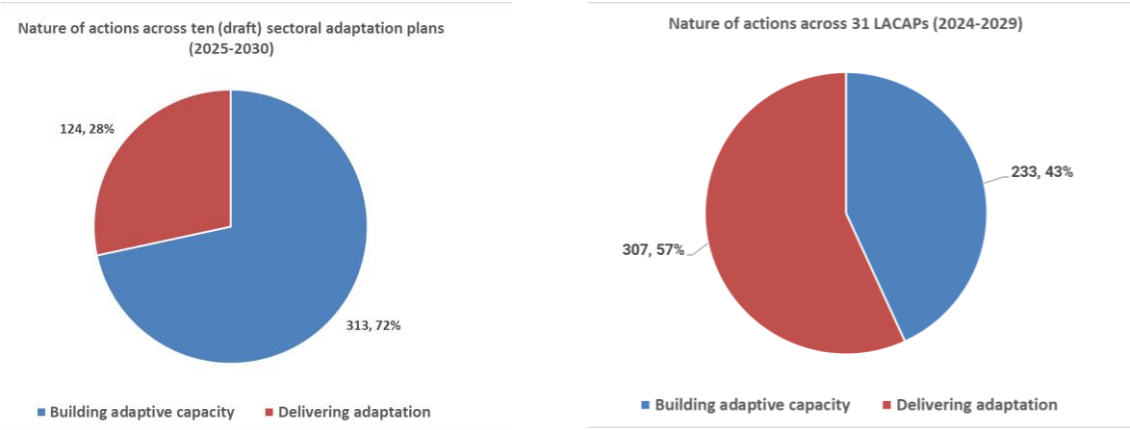


Figure 2: Nature of actions across the SAPs (left) and LACAPs (right)

2) **At both local and sectoral levels, most 'building adaptative capacity' actions relate to research, defined as *building the knowledge and evidence base to inform decision making*.** This includes activities such as risk assessments and condition or habitat surveys, as well as research in the more traditional academic sense.

3) **Actions focused on delivering adaptation are dominated by 'soft' measures at both the local and sectoral levels.** However, the SAPs place a substantially greater emphasis on 'soft' actions while the LACAPs also show a strong emphasis on 'green' actions.

Notably very few actions are classified solely as 'grey', suggesting a potential overlap between the 'green' and 'grey' secondary categories.

4) **Local authorities are driving adaptation action in Flood Risk Management, Built Environment and Planning and Built and Archaeological Heritage** as well as playing a significant role in biodiversity, water quality and transport (see Figure 3).

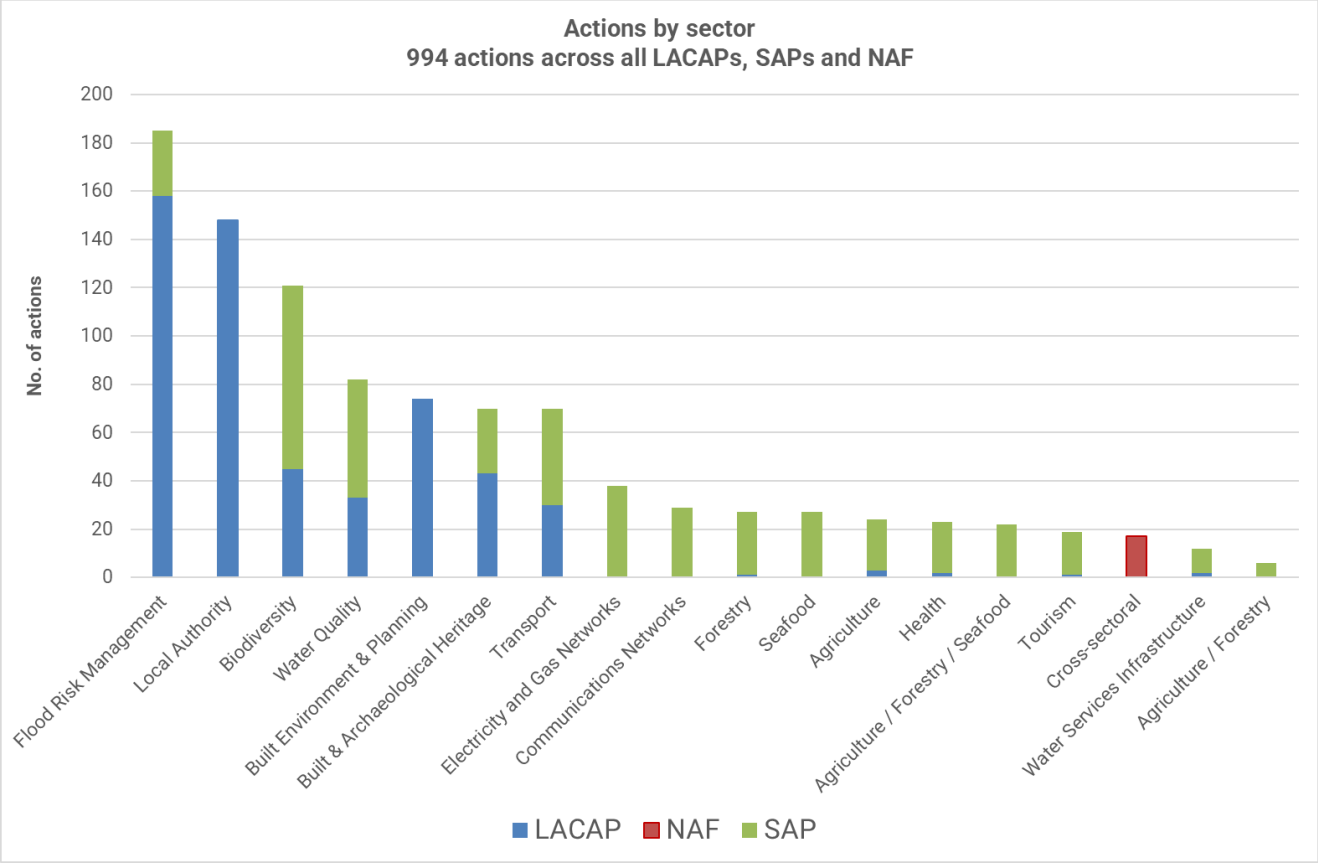


Figure 3: Number of actions by sector at local authority, sectoral and national level

5) **Local authorities have a significant focus on actions to build emergency preparedness and community resilience in their administrative areas**. Actions across the LACAPs that are specific to the relevant administrative area are included in Figure 3 under the 'Local Authority' sector. These were assigned sub-sectors as shown in Figure 4.

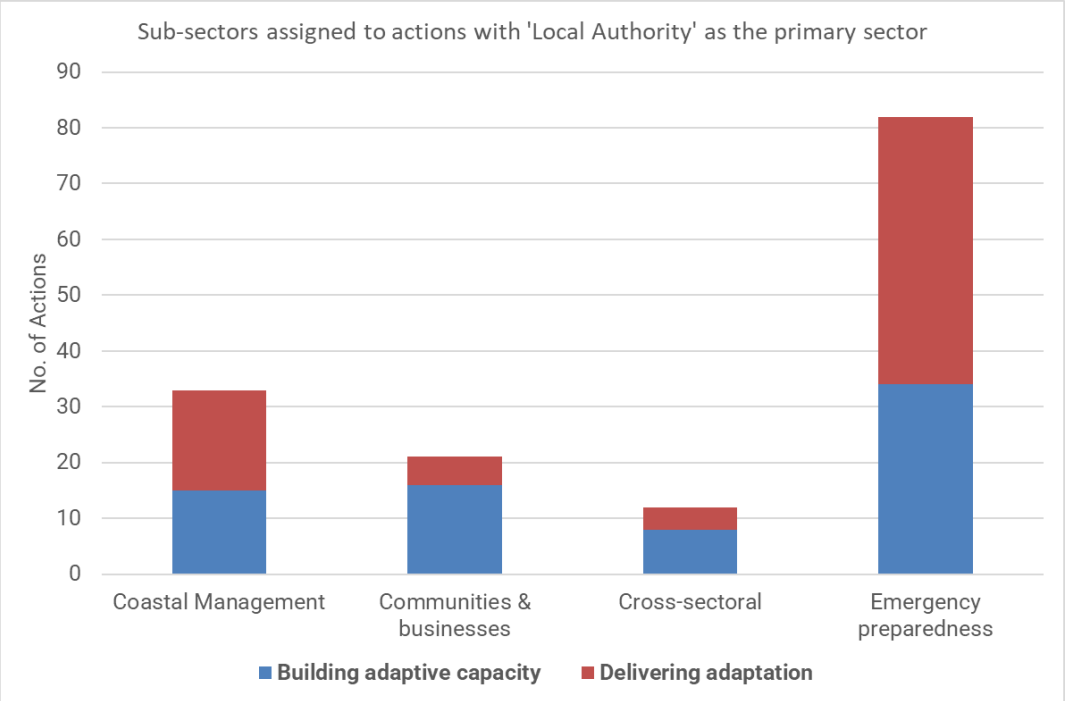


Figure 4: Local Authority actions by sub-sector, aggregated from 31 LACAPs.

6) **Completion of actions to build adaptative capacity is expected to peak in 2027 after which the focus is projected to move towards delivering adaptation (see Figure 5).** This indicates the potential need for a mid-term review of the revised adaptation scorecard.

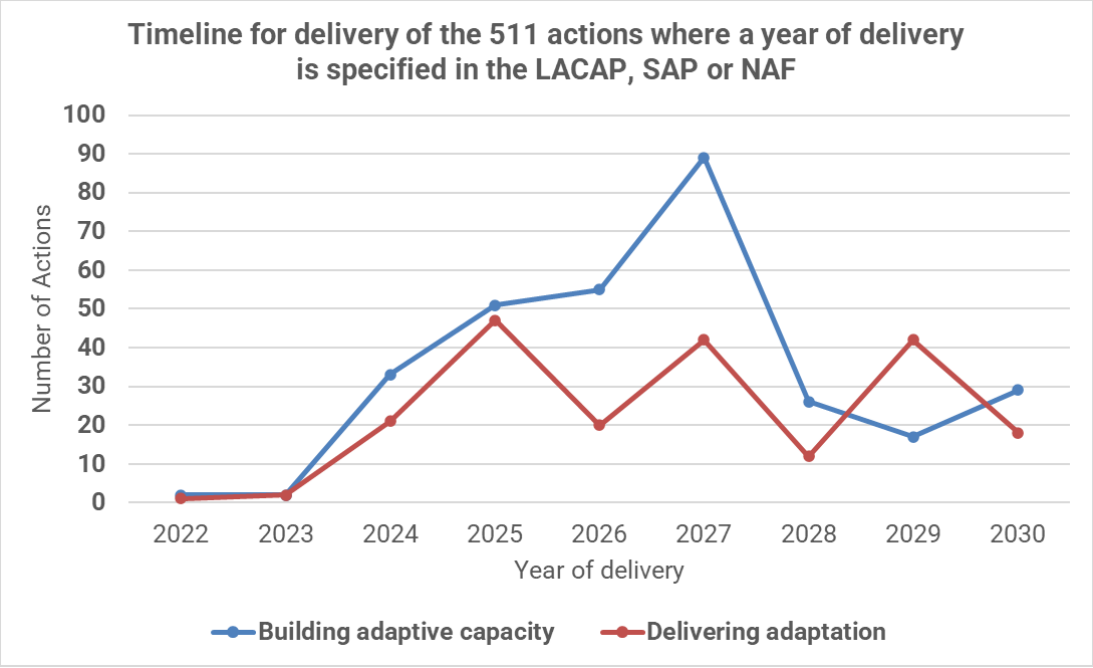


Figure 5: Timeline for completion of actions across the NAF, SAPs and LACAPs for building adaptative capacity vs. delivering adaptation

A key objective of the adaptation scorecard review is to introduce quantitative indicators where feasible. To assess this potential, the KPIs/indicators specified in the plans for each action were

catalogued. This enabled an assessment of the most frequently recurring KPIs for each secondary action category, providing a stakeholder-relevant starting point for considering where quantitative indicators could be incorporated into the updated scorecard. These results are presented in Figure 6.

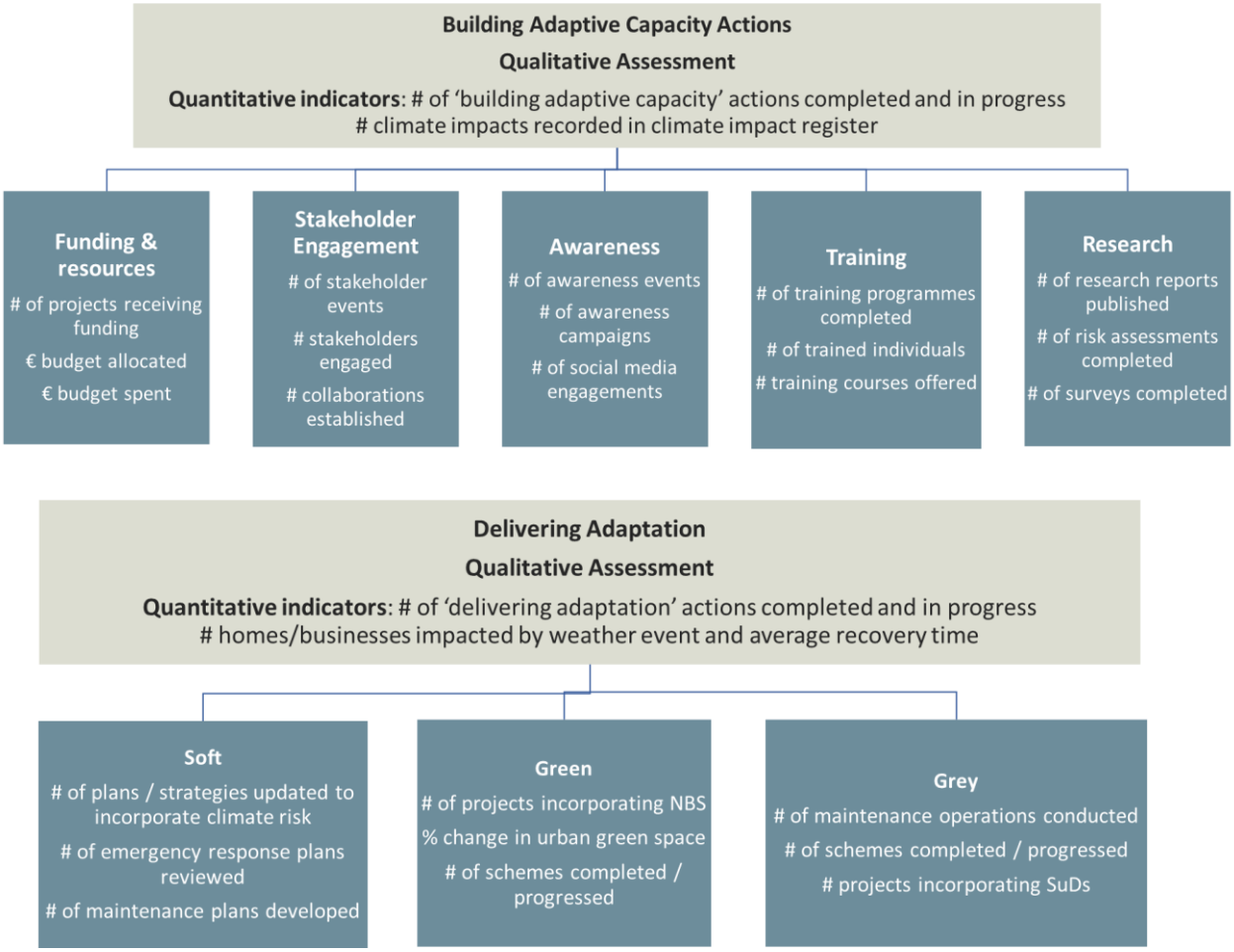


Figure 6: Potential quantitative indicators emerging as the most commonly recurring KPIs across the local and sectoral plans for each secondary category of action.

These findings provided the basis for the subsequent stakeholder engagement exercise, which was structured to test the practicality and relevance of the draft proposed categories of assessment (Figure 1) and the potential to introduce quantitative indicators (Figure 6).

2.2 Stakeholder engagement

A comprehensive stakeholder engagement exercise was undertaken to test the practicality and relevance of the proposed assessment framework, particularly the applicability of the primary 'building adaptive capacity' and 'delivering adaptation' categories and their associated secondary categories (Figure 1) across the local, sectoral and national contexts, and to explore where stakeholders perceived remaining gaps or overlaps. The most commonly recurring KPIs (Figure 6) were used to frame a discussion on the feasibility of introducing quantitative indicators within each category, with consideration of data capture and availability as well as consistency across organisations and scales. The aim was to move beyond a conceptual framework to consider how a revised scorecard can be operationalised in a stakeholder relevant, practical, fair and transparent manner.

Stakeholder engagement was undertaken through a programme of semi-structured interviews with key actors across Ireland's adaptation governance and delivery landscapes, including representatives from Government departments leading on SAPs, local authority Climate Change Coordinators, the Climate Action Regional Offices (CAROs), the CCMA, the Adaptation Committee of the Climate Change Advisory Council (CCAC) and the CCAC Secretariat. A semi-structured format was selected to ensure consistent coverage of core topics while enabling interviewees to provide local and sector specific detail, examples of practice and insights in relation to feasibility of reporting under the various categories and proposed quantitative indicators. Tailored interview guides were developed and circulated to stakeholders in advance, including a guide for sectors and local authorities from the user perspective and a guide for the CCAC Secretariat and Adaptation Committee from the evaluation and assessment perspective. The semi-structured interview guides are included in Appendix 2.

Interviews were held with the Climate Change Coordinators from nine local authorities[7], two CAROs[8] and as well as a former CARO lead who has substantial prior experience engaging with the scorecard. Interviews were also held with two local authority representatives from the CCAC Adaptation Committee[9], also representing CCMA.

Nine sectors[10] participated in the interviews, in addition to DCEE in relation to the NAF. It should be noted that the Tourism sector has only recently published its first SAP and, as a result, has not previously engaged with the scorecard. Accordingly, it was not in a position to respond to a number of the questions raised.

Five members of the Adaptation Committee and four members of the CCAC Secretariat were interviewed. These interviews considered the purpose of the scorecard and its ability to measure adaptation progress from the perspective of the CCAC, in order to inform the development of revised questionnaires that meet the primary CCAC objectives. Stakeholder responses and key recurring messages are summarised below. The underlying stakeholder feedback for the different stakeholder groups is provided in the tables in Appendix 1.

2.2.1 Stakeholder responses

2.2.1.1 Purpose, framing and the term 'scorecard'

A consistent message emerging from the majority of respondent stakeholders was that the current scorecard promotes competition and comparison, rather than collaboration and a shared learning approach. This was linked to a perceived lack of transparency in the evaluation and ranking process, and to the view that the term "scorecard" itself implies competition. Stakeholders also suggested that, if ranking is retained, the top-ranked responses should be shared with all respondents to support learning and the transfer of good practice. It was also proposed that international benchmarking may provide a more meaningful basis for assessing sectoral progress, however no specific proposals were put forward on how this could be operationalised in practice (e.g. how an appropriate benchmark would be defined or which comparator countries would be used).

[7] Longford, Louth, Roscommon, Offaly, Carlow, South Dublin, Tipperary, Leitrim, Kildare
[8] Dublin Metropolitan and Eastern and Midlands
[9] Cork City and Waterford Councils
[10] Tourism, Water Quality and Water Services Infrastructure, Flood Risk Management, Built & Archaeological Heritage, Health, Agriculture, Seafood and Forestry, Transport, Communications Networks, Electricity and Gas Networks

CCAC stakeholders were divided on this issue. Some were unclear on the value of comparing progress across substantially different sectors, while an equal number highlighted the comparative nature of the scorecard as a key strength.

2.2.1.2 Annual snapshot versus cumulative assessment

Respondent stakeholders repeatedly indicated that an annual snapshot of progress is not well aligned with the nature and delivery of adaptation and suggested that a cumulative assessment over a longer period (e.g. 3–5 years) would provide a more effective measure of progress. There was nonetheless broad support for retaining an annual update, but alongside an assessment of cumulative progress to better reflect the time and effort required to implement longer-term actions (e.g. large infrastructure projects, land use changes).

The majority of CCAC stakeholders favoured an annual assessment process but also recognised the value of incorporating a cumulative element to enable tracking of progress and trends over longer periods and to support an assessment of the effectiveness of adaptation measures.

2.2.1.3 Reflecting action at local authority and sub-sectoral level

Local authority stakeholders confirmed that the current scorecard approach is not reflective of the full range of adaptation activity being undertaken within LAs. Stakeholders expressed a preference for local authorities to contribute directly to the scorecard via the CAROs, with a strong preference for this to align with existing LACAP, LGMA and NOAC reporting obligations (typically in Q1 each year). This would minimise additional reporting burden while also better reflecting the variations across the sector (local authority size, budgets, elected members priorities). It was acknowledged that a clear and well-designed methodology would be required for the CAROs to aggregate the individual LA submissions. Stakeholders also emphasised that aggregation at CARO level should not create competition or ranking within the sector but should instead support collaboration and shared learning.

CCAC stakeholders indicated that assessment at local authority level would be ideal, however, this would represent a substantial increase in workload and was therefore not considered feasible from a resourcing perspective. Aggregation at CARO level was therefore favoured and was viewed as a considerable improvement on current practice in terms of assessing local authority progress.

In relation to sub-sectoral assessment, sectoral stakeholders[11] generally did not support this approach, highlighting the integrated nature of adaptation action across sub-sectors and governance structures at both departmental and Ministerial level. It was not considered feasible or possible to disaggregate actions meaningfully for separate sub-sector reporting. CCAC stakeholders were divided on this issue, with some expressing similar concerns. The priority areas for potential sub-sectoral assessment emerging from the CCAC stakeholders were Agriculture, Seafood and Forestry and stakeholders in these areas did indicate that they would be open to further discussion on this issue as part of a revised scorecard proposal.

2.2.1.4 Process and streamlining (including options for online responses)

The majority of local authority stakeholders were unfamiliar with the current process and were not aware of having previously submitted responses or data via the CARO. It was confirmed that the local authority response is currently coordinated by one CARO, and most stakeholders were

[11] Transport, Agriculture, Seafood & Forestry, Electricity and Gas Networks and Water Quality and Water Services Infrastructure

unclear on the extent of collaboration across the sector in developing this response. Looking ahead, stakeholders indicated that early sight of the revised scorecard would enable them to align internal reporting structures with any new requirements. However, for reasons of practicality they strongly emphasised that reporting should align with the timing of LACAP, LGMA and NOAC reporting. A majority also noted that climate action reporting requires substantial internal liaison across LA sections, meaning an online response would only be feasible if supported by an editable questionnaire that can be circulated widely, with final online submission coordinated by the climate action coordinator.

Sectoral stakeholders found the current scorecard engagement process with the Secretariat valuable and positive. They welcomed the feedback and opportunity to respond prior to final publication, and whilst interviews are not a formal element of the process currently, many indicated they feel able to reach out and discuss their submission with the Secretariat as needed. A recurring sectoral issue related to the question on financial resources for adaptation. Most sectors indicated it is not possible to respond meaningfully as adaptation expenditure is not separated in departmental budgets or the budget sits with semi-state agencies / the private sector who are often not willing to share this information. Stakeholders also noted that as adaptation is increasingly mainstreamed, isolating expenditure is likely to become less feasible over time. In addition, a large majority of sectors favoured tailoring the questionnaire to reflect sector-specific activity, challenges and nuances. Similar to local authorities, sectors raised feasibility concerns over moving to an online model. They emphasised the need for an editable version of the questionnaire so that the lead respondent can circulate it internally to relevant divisions or externally to relevant semi-state agencies or private sector providers to capture the full breadth of activity, before collating into a single sectoral submission for online entry. Stakeholders also highlighted the need to consider cybersecurity to ensure submissions and any supporting evidence are securely stored and protected from unauthorised access. GDPR considerations were also raised, particularly in relation to access controls and publication arrangements (e.g. whether responses are visible to other respondents or publicly and how the personal details of those submitting responses are protected).

CCAC stakeholders generally supported a move to an online model, particularly where it enables responses to be constrained and compared across years, categories and sectors and where an online dashboard allows for data to be uploaded on an ongoing basis. One sector and one local authority noted they already use a Power BI dashboard to monitor adaptation progress. CCAC stakeholders also broadly supported the introduction of sector-specific or sector-relevant questionnaires to enable a more robust assessment of sector-specific issues. Views were mixed on introducing interviews with respondents as a formal part of the process with some suggesting these provide an opportunity to build relationships, address queries and offer encouragement and some expressing concern that these would introduce issues of consistency and transparency as well as resource issues.

2.2.1.5 Quantitative indicators

The majority of local authority stakeholders did not support reporting on quantitative indicators at this time, indicating this would be too burdensome or not possible. Whilst some quantitative data is being captured through the LACAP KPIs this is limited to LACAP actions only and not reflective of the full range of adaptation activity taking place. There is also inconsistency across local authorities in the nature and implementation of these indicators. No local authority reported using outcome or impact indicators, however a majority are considering how to measure the impact of and response to extreme events so progress is anticipated in this regard in the

coming years. Stakeholders were also of the view that development of indicators should be a combined local and sectoral effort under the leadership of DCEE, and that indicators should not be imposed under the scorecard. In the interim, alignment with the NOAC or LGMA indicators was suggested. It was further noted that if reporting on quantitative indicators is introduced, indicators will need to be very clearly defined to ensure consistency of reporting, and training would be required for LAs before the first reporting deadline.

At sectoral level work is planned or ongoing to develop quantitative indicators, and stakeholders strongly indicated that any indicators required for the scorecard will need to be developed or agreed by / with the sectors. Feedback also highlighted that the proposed indicators (Figure 6) are not really useful for assessing progress towards resilience, and that introducing any quantitative indicators at this stage will be very challenging. DCEE noted that Ireland may ultimately inherit internationally agreed indicators so development of any new national indicators at this stage may not represent a good use of resource.

Whilst the majority of CCAC stakeholders supported a move towards quantitative indicators in principle, a significant number indicated that the proposed indicators are not useful for measuring adaptation progress as they do not focus on outcomes and may create perverse incentives or overfocus. CCAC stakeholders aligned with local authority and sectoral stakeholders in noting it is not the role of CCAC to define quantitative indicators and that these should be developed by sectors directly.

2.2.1.6 Categories of assessment

All local authority stakeholders and sectoral stakeholders indicated that the proposed framework for categories of assessment (Figure 1) is relatively clear and had the potential to cover the full range of adaptation activities, subject to a number of recurring suggested refinements. A significant number of local authority stakeholders indicated the importance of reflecting major emergency planning (e.g. community resilience hubs) which were described as central to LA adaptation delivery. Several local authority and sectoral stakeholders also highlighted potential overlap and confusion across the stakeholder engagement, awareness and training sub-categories, suggesting that these could be more clearly structured through an 'internal stakeholders' and 'external stakeholders' split or with consideration of the engagement purpose. A number of stakeholders further indicated that governance instruments should be more explicitly reflected and that staffing should be more explicitly included within 'funding and resources'.

The treatment of the 'green' and 'grey' categories was repeatedly raised, with mixed views. Some stakeholders indicated that separating green and grey is difficult in practice given the prevalence of hybrid measures, while others emphasised that green measures should be prioritised where possible and therefore should remain a distinct category (with a suggestion to rename this to nature-based solutions). Risk mapping was also raised as an important area for assessment, and cross-sectoral and multi-level coordination was consistently emphasised as central to effective, integrated adaptation action that should be reflected in the revised scorecard.

Across stakeholder groups, the importance of very clear definitions was repeatedly emphasised to support consistent interpretation by respondents. It was also requested that the questionnaire include a clear definition of adaptation versus mitigation to support clarity and consistency in responses. CCAC stakeholder feedback was broadly aligned with local authority and sectoral views, although CCAC stakeholders tended to favour retaining green and grey as distinct

categories and highlighted the importance of reflecting the scale of action (both physical and financial).

2.2.1.7 Qualitative reporting, case studies, and barriers/dependencies

All local authority and sectoral stakeholders agreed that qualitative assessment remains essential, regardless of the potential introduction of quantitative indicators. There was broad support for provision of case studies as exemplars of best practice and a significant majority of stakeholders indicated that qualitative reporting would help with reporting cross-sectoral and multi-level coordination challenges. Qualitative reporting was seen as necessary in a number of areas including for reporting on actions not included in LACAPs or SAPs, to describe outcomes and collaborations, including international collaborations and those with industry and the private sector.

The majority of CCAC stakeholders also strongly indicated that any quantitative indicators would also need to be accompanied by qualitative data, to avoid misinterpretation, account for cross-sectoral activity and to assess outcomes. It was also suggested that a focus on case studies that address priority risks may be a good approach with these case studies being shared for best practice.

2.2.1.8 Evaluation and measuring resilience

Feedback on the evaluation process and how best to measure resilience was explored only with CCAC stakeholders in this engagement exercise. Overall, stakeholders recognised that evaluation is necessarily time intensive, however they raised recurring concerns noting the process is subjective, lacks transparency, is overly text-heavy and requires a more streamlined approach as well as sufficient resourcing.

In terms of measuring resilience, stakeholders emphasised that resilience is a system-level outcome involving cascading and complex risks and therefore cannot be fully assessed sector-by-sector. The importance of cross-sectoral and multi-level coordination was repeatedly raised. A number of stakeholders suggested that evaluation should assess overall progress towards resilience, measured against pre-defined steps including risk quantification and mapping, planning actions, monitoring implementation and evaluating outcomes. Establishing a baseline "adaptation readiness" for each sector was considered necessary for such an evaluation. It should be noted that whilst evaluation was not explored directly with the sectors, three sectors nonetheless suggested that a measure of resilience could be achieved in the scorecard with a series of steps against which progress can be measured – broadly aligned with the suggestions arising from the CCAC stakeholders. A number of stakeholders also raised the issue of social acceptability and social justice, indicating the scorecard evaluation should assess whether action is improving protection for the most vulnerable people and infrastructures.

The potential for weighting of actions was also explored, with stakeholders expressing mixed views. One stakeholder suggested that all categories should be given equal weighting in the evaluation to avoid overcomplicating the scorecard, however three stakeholders supported weighted assessment to reflect the relative importance of actions that deliver adaptation versus those that build capacity.

2.3 Review of international practice in measuring adaptation progress

The UNFCCC Adaptation Committee[12] explored the current landscape for monitoring and evaluation for climate change adaptation at the national and subnational level. Drawing on a number of international case studies they find that adaptation monitoring and evaluation remains challenging and context specific. They note that while indicators often serve as central components of monitoring and evaluation systems, their role and selection must be carefully considered, to ensure a balance between robustness and feasibility and to avoid creating unintended incentives through imperfect indicators. They also recommend designing a system that is feasible given existing data, capacity and resources, noting this may involve initially focussing on the process and outputs of adaptation action and gradually incorporating more indicators and methods to measure the long-term effect and impact of adaptation.

In this section some international examples of scorecards are considered. In particular, the UK and New Zealand provide well-developed, independent approaches that align with recurring themes emerging from Irish stakeholder feedback, including the preference for cumulative assessment alongside regular periodic updates, the need for transparency in evaluation, and the importance of capturing progress towards resilience without creating perverse incentives.

2.3.1 United Kingdom: Climate Change Committee adaptation progress reporting

The UK model is anchored in a statutory cycle under the UK Climate Change Act 2008, requiring a climate change risk assessment every five years and a corresponding national adaptation programme setting out how the Government will address these risks[13]. The third National Adaptation Programme (NAP3), published in July 2023, sets actions for 2023–2028, and the Climate Change Committee (CCC) reports on progress biennially, with the most recent report published in May 2025[14]. The CCC approach is explicitly outcome-led: progress is assessed against a defined set of outcomes needed for a 'well-adapted UK', alongside an assessment of whether high-quality government policies and plans are in place to enable delivery.

A key feature of the UK approach is the separation of assessment into 'delivery and implementation' and 'policies and plans' supported by both indicator-based evidence and structured qualitative information. For delivery and implementation, the CCC assesses outcome indicators and reports the direction of travel (improved, worsened or no change) since the previous report, alongside a judgement on the quality of the underlying evidence indicating if the CCC have low, medium or high confidence in the quality of the available evidence. A number of indicators are used to assess 'delivery and implementation' progress for each outcome area. These are listed in Table 1 below.

Table 1: Delivery and implementation indicators used in the UK adaptation progress report.

Outcome area	Indicators
Land, nature and food	• Extent of protected areas (ha) • Cumulative proportion of SSI's in in favourable and unfavourable recovering condition (%)

[12] https://unfccc.int/sites/default/files/resource/AC_TechnicalPaper_AdaptationMandE_2023.pdf
[13] https://commonslibrary.parliament.uk/research-briefings/cbp-9969/
[14] https://www.theccc.org.uk/publication/progress-in-adapting-to-climate-change-2025/

	• Populations of wild bird species (index) • Proportion surface water bodies in high or good condition (%) • Number of wildfires >30 ha • Area of land under agri-environment schemes (1000's ha) • Woodland managed sustainably (%) • Households with high food security (%) • Total agricultural output (£m)
Infrastructure – water supply	• Domestic per capita water consumption (l/p/d) • Metered household connections (%) • Leakage from the public supply system (million l/d) • Reservoir capacity (millions m3) • River flow – minimum average value per year (m3/s) • Groundwater discharge – minimum value per year (million m3/day) • Unplanned outage as a % of weekly production capacity • Water supply-demand balance (million l/d)
Infrastructure – energy	• Number of critical customers supplied by substations at risk of flooding • Overhead network cleared by tree cutting (%) • Number of severe weather customer interruptions to energy supply
Infrastructure – transport	• Delays to the rail network from flooding (mins) • Delays to the rail network from heat (mins) • Delays to the strategic road network from flooding (mins) • Length of strategic road network not susceptible to flooding (%) • Roads on the strategic road network in good condition (%) • Local road where maintenance should be considered (%)
Built Environment	• Cumulative number of properties better protected from flooding by EA schemes compared to target • EA high consequence flood and coastal risk management assets at or above target condition (%) • EA flood and coastal risk management asset maintenance allocation (£m real prices) • No. of properties experiencing external sewer flooding per 10,000 sewerage connections in England • Average number of spill events per storm overflow • Urban land cover which is impermeable (%) • Planning decisions which follow EA flood risk advice (%) • Cumulative number of properties better protected from flooding by property level measures installed through EA schemes • Households with recent flood claims (in last 5 years) able to access over 15 insurance quotes (%) • % of 'at risk' properties registered for EA flood warnings (%) • No. of flood incidents attended by the fire and rescue service
Health & wellbeing	• No. of annual excess deaths from heat • Annual overheating occurrences triggering a risk assessment in NHS trusts

	• Annual flood occurrences triggering a risk assessment in NHS trusts
Economy	• Average business claims for UK properties due to weather damage (£k) • Potential earnings lost due to heat exposure (£million) • Volume of UK international private finance mobilized for climate adaptation purposes (£million)

Assessment for 'delivery and implementation' follows a traffic light approach with clear and transparent qualitative criteria outlined for each rating as outlined in Table 2 below.

Table 2: UK CCC scoring criteria for 'delivery and implementation'

Score	Criteria
Good delivery	Performance across most indicators is at a high-level (either in relation to an industry or government commitment or target, or based on judgement from the Adaptation Committee), with performance either being maintained or improving over time.
Partial delivery	Performance across most indicators has not yet reached a high-level. However, most indicators are moving in the right direction. There may be some indicators which are being maintained at a high level, or some indicators where progress is moving in the wrong direction.
Limited delivery	Performance across most indicators has not yet reached a high-level and progress is mixed, or performance across most indicators has reached a high-level but indicators are moving in the wrong direction.
Insufficient delivery	Performance across most indicators has not yet reached a high-level and progress is stagnant or moving in the wrong direction.
Unable to evaluate	Limited or no available data.

For policies and plans, the CCC applies a formalised monitoring framework[15] that draws on NAP3 and wider relevant policy, including the Adaptation Reporting Power[16] and targeted stakeholder engagement. Central to this is the use of 'monitoring maps'[17] that set out required outcomes, the enablers required to achieve these outcomes, and key policy milestones needed to put the enablers in place. There are 13 monitoring maps in total[18] and an example for nature is included below.

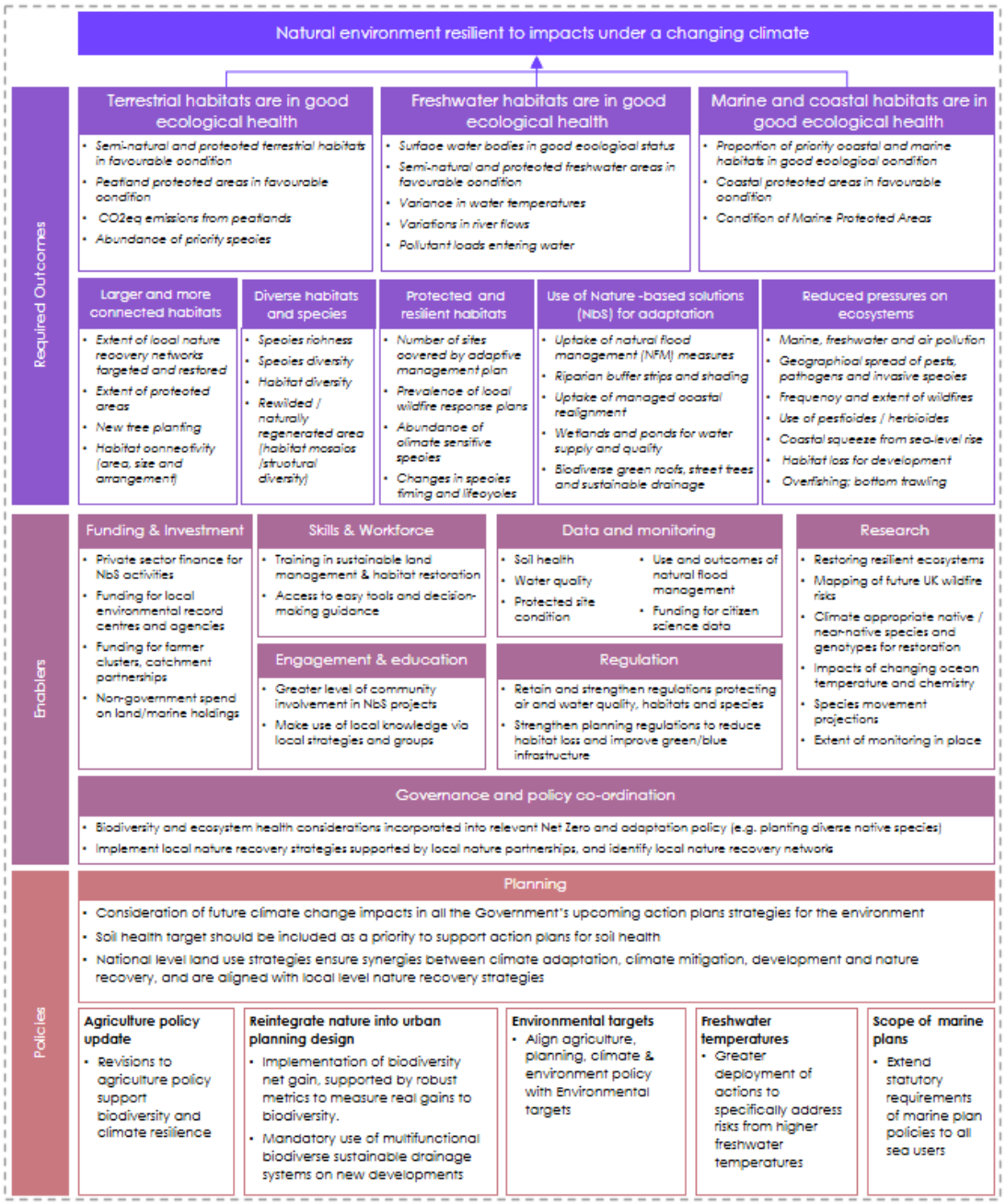
[15] CCC Adaptation Monitoring Framework - Climate Change Committee

[16] The Adaptation Reporting Power was created under the Act to help to understand and improve the resilience of key infrastructure systems to climate change. It enables the government to ask 'reporting authorities (persons or bodies with a function of a public nature and statutory undertakers)' to produce reports on the current and future predicted effects of climate change on their organization, their actions taken and their future proposals for adapting to climate change and progress made towards their implementation

[17] CCC Adaptation Monitoring Framework - Climate Change Committee

[18] Nature, working land and seas, UK food security, water, energy, telecomms and IT, transport, towns and cities, buildings, health, community, business, finance.

Nature



Assessment for 'policies and plans' follows a similar traffic light approach to that for 'delivery and implementation', with clear qualitative criteria for each rating as outlined in Table 3 below.

Table 3: UK CCC scoring criteria for 'policies and plans'

Score	Criteria
Good policies and plans	Credible plans which are comprehensive and appropriately ambitious, with enablers (including funding, monitoring and evaluation) and timelines in place.
Partial policies and plans	Some adjustment to plans may be needed to deliver outcomes and to improve ambition. Whilst the plans cover funding and enablers (including monitoring and evaluation), there are some uncertainties on how these will be delivered.
Limited policies and plans	Plans need further work to improve ambition and to deliver outcomes. There are considerable uncertainties on how enablers and funding will be delivered and there is minimal evidence of monitoring and evaluation.
Insufficient policies and plans	Plans are either missing, do not cover key areas, do not have appropriate ambition or lack funding and new proposals are needed. Negligible evidence of monitoring and evaluation plans are in place.
Unable to evaluate	Limited or no available data.

The UK approach incorporates several issues raised in the stakeholder engagement exercise summarised in the previous section. In particular, it provides a practical template for improving transparency and addressing perceptions of subjectivity with published evaluation criteria for each traffic-light rating. It also operationalises a systems-based assessment to understand and assesses progress across outcomes, enablers and policy milestones over time using regular (biennial) assessment. This aligns with Irish stakeholder calls for cumulative assessment over time rather than relying on an annual snapshot, but critically it still provides for regular assessment. Notably, it does not use a ranking system but is instead designed to clarify whether progress towards resilience is being made and where gaps persist. It assesses improving, worsening or stagnated progress relative to the previous report using a traffic light approach. This provides an incentive for sectors to continue to improve but with less potential to encourage competition and greater potential to support cross-sectoral and multilevel collaboration which is inherently required under the indicator-led approach to the assessment of delivery and implementation. It should be noted however that the UK indicators and monitoring maps were developed alongside a range of subject matter experts and stakeholders, a process that has not yet been undertaken in Ireland.

2.3.2 New Zealand: Climate Change Commission progress reporting

New Zealand's approach is similarly grounded in legislation and independent oversight. The Climate Change Commission published its first progress report in 2024[19], as part of a continuing two-yearly reporting cycle required under the Climate Change Response Act 2022, with the Minister required to respond within six months. Like the CCAC, the Commission is an independent body providing evidence-based advice, and it is responsible for monitoring and reporting progress on implementation of the Government's national adaptation plan. The progress report draws on a wide range of sources across central and local government and

[19] https://environment.govt.nz/assets/publications/climate-change/national-adaptation-framework-final-web.pdf

information coordinated through a national implementation governance structure. The progress report assesses the degree to which the objectives in the national adaptation plan have been achieved, and how well the plan responds to the most significant risks posed by climate change. They also assess progress towards implementation of the plan, identify barriers to the implementation and effectiveness of the plan, and make recommendations for how those barriers might be addressed.

The Climate Change Commission developed a framework for evaluation for its progress report, drawing on emerging international best practice and research. This includes a review of international research with a particular focus on methods for measuring adaptation effectiveness. The New Zealand evaluation framework is structured around three pillars:

1) Quality of the plan: focused on understanding how likely the national adaptation plan is to achieve desired outcomes. The CCC notes that an important goal of this analysis is to understand whether there are any significant gaps in the plan that could undermine good adaptation outcomes.
2) Implementation: focused on understanding how well implementation of the plan is progressing. The assessment considers whether the important enablers of effective implementation are in place as well as identifying barriers to implementation.
3) Observed progress towards objectives: focused on understanding how much progress is being observed towards the plan's objectives.

The second (implementation) and third (observed progress towards objectives) pillars are the most relevant in the context of Ireland's Adaptation Scorecard.

In assessing implementation, the Commission looks forwards and backwards guided by the question 'how well is implementation progressing?', examining whether key enablers are in place, whether milestones have been met, and what barriers are constraining progress. Implementation is assessed as no significant gaps, moderate gaps, significant gaps or insufficient, using a qualitative traffic light-based approach as outlined in Table 4 below.

Table 4: Criteria for assessing implementation progress, New Zealand

Score	Criteria for assessing implementation progress
No significant gaps	Actions are largely on track to deliver to timelines. High confidence that all critical actions will be delivered
Moderate gaps	Actions are largely on track to deliver to timelines, with some gaps. Medium to high confidence that all critical actions will be delivered
Significant gaps	Many actions are off track to deliver to timelines, with some important gaps. Some critical actions have medium to low confidence of delivery.
Insufficient	Many actions are off track to deliver to timelines. Many critical actions have medium to low confidence of delivery.

To assess observed progress towards objectives the Commission was guided by the question 'how much progress are we observing towards desired outcomes?'. A qualitative assessment of progress towards the 20 objectives in the first national adaptation plan was completed, while noting that in this first cycle it focused on early signs of progress such as work programmes that

are intended to flow through to outcomes. This was supplemented by outcome evidence where available, with an intention to strengthen outcome measurement in subsequent reporting cycles.

The first report identifies a number of high-priority areas where action is urgently needed to set the foundations for effective climate adaptation. Adaptation finance is recognised as a key enabler and New Zealand are in the process of developing a national funding framework for adaptation, with the report noting that progress is slow in this regard. A key recommendation is for the New Zealand Government to provide clarity on how adaptation costs will be shared and met. The New Zealand progress reporting approach does not rank across sectors or outcome areas.

2.3.3 Climate Emergency UK - Council Climate Action Scorecards

The Council Climate Action Scorecards[20] are an assessment of all UK councils on the actions they've taken towards net zero, undertaken by Climate Emergency UK, a not-for-profit community interest company. The scorecard assessment consists of 93 questions or less, depending on council type, across seven different sections, created in consultation with over 90 different organisations and individuals. Whilst the focus of this scorecard is mitigation there are learnings of relevance to Ireland's Adaptation Scorecard.

Key points:

- Questions are stakeholder relevant. The methodology notes that different council types have different powers therefore councils are only asked questions where they have influence or power on that topic. This aligns with the findings of Augustenborg et al. discussed in Section 2 and stakeholder feedback favouring sector-relevant questionnaires in the revised scorecard.
- Question weighting applies. The question weighting determines the importance of that question to the overall section score. Scores are out of 1, 2 or 3 depending on whether the question is weighted 'high', 'medium' or 'low'. The questions that are weighted high are those which are considered to have the biggest impact on GHG emissions reductions.
- Penalty marks. There are five questions where a council can receive penalty marks. These are questions where the action that a council has taken is contributing to higher carbon emissions. The penalty mark is a percentage reduction of the maximum possible score for the section.
- Cumulative assessment. Councils are scored on actions taken since 1st January 2020. This date was chosen as it was in 2019 that councils started declaring climate emergencies, so the scorecard is an assessment of their action since this renewed commitment to climate action came into effect.
- Right of reply. All councils are sent their first mark and given a right of reply with 5 weeks to respond. 76% of councils responded in 2024.

The results are published online, including a total score for each council (expressed as a percentage) and sectoral scores for buildings and heating, transport, planning and land use, governance and finance, biodiversity, collaboration and engagement, waste reduction and food. The percentage change from the previous assessment for each category is also published with

[20] Council Climate Action Scorecards | Climate Emergency UK

the assessment taking place biennially. Readers can sort the results according to the total score or sectoral score, effectively producing a ranking.

2.3.4 Australian Adaptation Database

Brullo et al. present a method for tracking national progress on climate change adaptation through the development of the Australian Adaptation Database[21] which is intended to support national adaptation stocktaking in the context of the Paris Agreement global stocktake. Whilst not directly equivalent to Ireland's Adaptation scorecard there are nonetheless key learnings of relevance. The authors propose a definition of adaptation progress as the degree to which adaptation activities move toward interventions intended to reduce vulnerability, with the assumption that that the closer these collectively are to an intervention, the more progress is being made. This is represented as a pyramid typology of progress towards adaptation (Figure 7), moving from foundational and capacity building activity to tangible action.

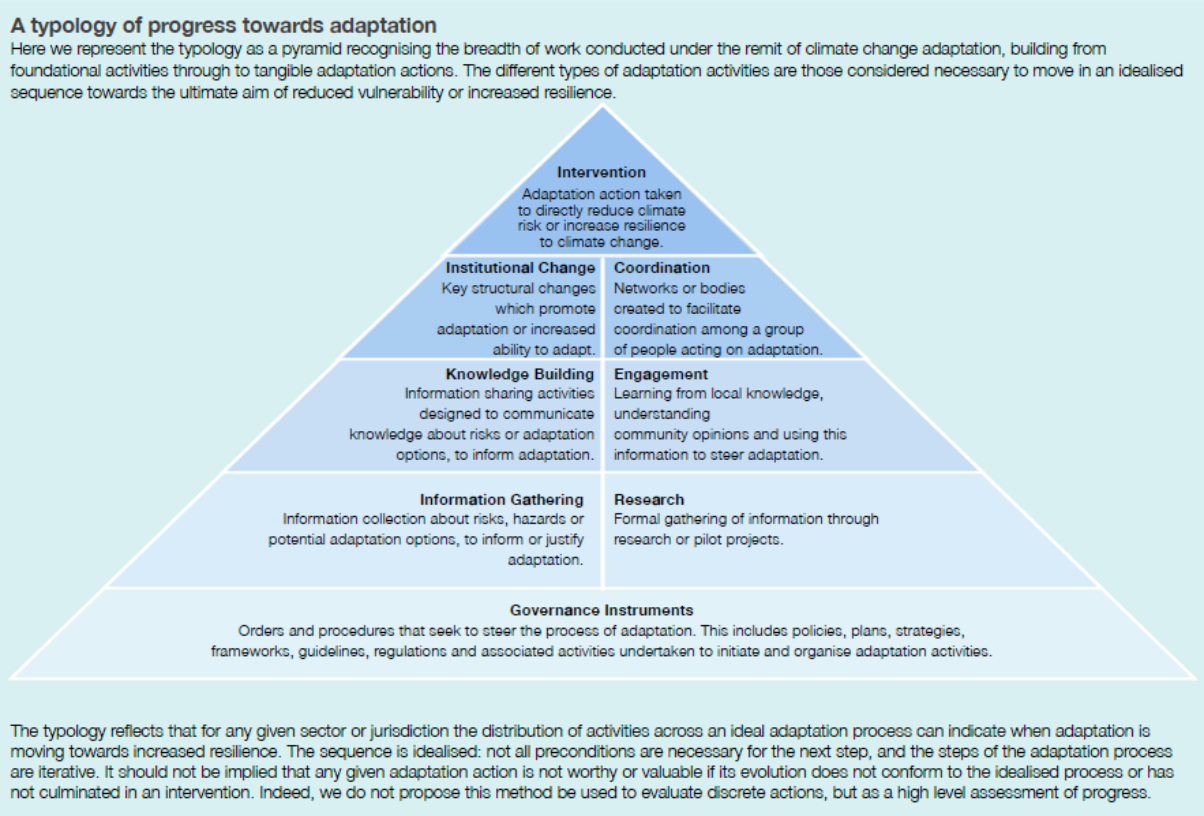


Figure 7: Source Australian Adaptation Database

The authors explicitly note that the database does not evaluate or verify the quality of outcomes of adaptation and cannot distinguish between successful and unsuccessful practices. It is instead designed as a high-level assessment of progress across a sector by assessing the distribution of activity across the typology (i.e., whether activity is progressing beyond foundational steps and moving towards interventions). This positioning is particularly relevant where outcome and impact evaluation is limited, providing a structured way to evidence direction of travel without overstating what conclusions can be drawn about effectiveness or outcomes. This is particularly relevant in the Irish context where outcome indicators have yet to be defined across most sectors. The typology aligns well with the proposed framework of categories for

[21] https://australianadaptationdatabase.unimelb.edu.au/metadata

Ireland's revised scorecard (Figure 1) which proposes assessment for building capacity actions and for delivering adaptation actions, however it provides key insights to assist with the refinement of this framework. For example, in the absence of outcome indicators, it offers a potential route to reduce reliance on qualitative, narrative-based reporting by assessing the quantity of actions by type and sector, across a common framework. It offers insights for the evaluation of Ireland's revised adaptation scorecard, relevant to the stakeholder feedback outlined in Section 2.2.1. For example, it provides a method to assess overall progress towards resilience / reduced vulnerability against pre-defined steps, in the absence of outcome indicators as in Ireland's case. It also facilitates ongoing cumulative assessment, alongside regular annual reporting, is objective, transparent and offers the potential for weighted assessment across the different stages. Finally, the database is publicly available online, allowing users to input and extract outputs and access case studies in support of shared learning.

Taken together, these international examples provide practical insights for Ireland's revised scorecard, including a clearer distinction between enabling conditions and delivery; identification of where gaps and barriers exist as well as an assessment of progress; cumulative assessment over time supported by annual updates; transparency measures to strengthen the credibility of evaluation; and the potential for a system-level framing of resilience that can incorporate cross-sectoral and equity considerations alongside sectoral reporting.

3 Recommendations for the revised adaptation scorecard

The following recommendations have been developed on the basis of the evidence gathered through the initial policy review, the stakeholder engagement process (including the September 2023 workshop and recent interviews), and the review of relevant international practice. Together these highlight a consistent need to strengthen stakeholder relevance and feasibility, improve transparency and consistency in evaluation, support shared learning and collaboration, and adopt a phased approach to quantification that is credible in the absence of mature outcome and impact metrics.

Ensure questionnaires are stakeholder-relevant

Design the revised questionnaires so they are able to accommodate the differing needs of each sector, while maintaining a coherent overall structure. This can be achieved either through carefully designed universal questionnaires, sector-specific questions or sector-specific guidelines and evaluation criteria. This reflects stakeholder preferences for tailored questionnaires that capture sector-specific activity, challenges and nuance, and aligns with the literature on organisational report cards as tools for social accountability[22].

Reduce the prominence of ranking to encourage collaboration and shared learning across sectors.

Enhance the opportunities for shared learning and improvement in the revised scorecard, consistent with feedback from the September 2023 workshop and recent interviews. Many stakeholders viewed ranking as a barrier to collaboration, and local authority stakeholders were

[22] Augustenborg, C.A., P. Lentz and A. Pender (In Review) *Organizational Report Cards as Tools for Social Accountability in Environmental Policy*. *Administration & Society*. Submitted: 19 January 2025.

clear that CAROs and/or local authorities should not be "pitted against one another" as they are not comparable. International approaches reviewed (including the UK and New Zealand) demonstrate that progress can be assessed without ranking. In this context, also reconsider the term "scorecard", which some stakeholders felt implies competition. A framing such as "evaluation" or "adaptation action assessment" may better support improvement and shared learning.

Optimise the local authority questionnaire for completion by all 31 local authorities, with aggregation at CARO level

Enable local authorities to contribute directly via their CARO, supported by a simple, well-defined aggregation methodology. Align the reporting window and content with existing LACAP, LGMA and NOAC obligations (typically Q1) to minimise burden and improve data quality. This addresses the recurring concern that the current approach is not reflective of the full range of local authority adaptation activity.

Improve visibility of sub-sectoral implementation through stakeholder relevant questionnaires without moving to sub-sectoral assessment

Design the questionnaire to capture sub-sectoral planning and implementation (e.g., structured case studies and sub-sectoral activity summaries), while avoiding formal sub-sectoral evaluation which was not supported or considered feasible by sectoral stakeholders.

Reframe the question on financial resources for adaptation to focus on resourcing challenges and barriers rather than expenditure

Reframe the current question on financial resources for adaptation to reflect the strong stakeholder feedback that adaptation expenditure is not separable from other climate related expenditure and that as a result sectors are not able to accurately or meaningfully respond to the current question. Reframing the question to identify resourcing challenges and barriers would avoid inadvertently discouraging mainstreaming by implying that adaptation should be ring-fenced. Such an approach that would also help to identify systemic resourcing barriers is recommended.

Refine the categories of assessment

Update the assessment framework to reflect stakeholder feedback i.e. improve the clarity of definitions and better represent a staged progression from enabling conditions through to implementation and interventions. Drawing on the Australian progress typology, present categories in a way that supports consistent classification and reduces reliance on narrative interpretation. Key refinements include:

- Include major emergency planning explicitly (repeatedly requested at LA level and applicable across local and sectoral contexts).
- Replace "stakeholder engagement / awareness / training" with a clearer structure and with clear definitions that reduce overlap.
- Include governance instruments explicitly as a foundational enabler.
- Explicitly include staffing within "funding and resources".
- Add a distinct category for risk quantification and mapping (distinct from research).
- Keep green and grey sub-categories distinct but also accommodate hybrid measures. Rename 'green' to nature-based solutions.

Request case studies and support their dissemination (with explicit permissions)
Include a case study requirement within questionnaires with an explicit consent mechanism for publication. Case studies should support learning by capturing in a consistent format (for example) excellence in cross-sectoral/multi-level coordination, the priority risk(s) addressed, the type of intervention, scale and nature of the resilience benefit and key implementation and operational lessons.

Provide an annual training webinar / information session for all respondents
Offer an annual training and Q&A session when questionnaires are issued, including participation from all 31 local authorities. This responds directly to stakeholder feedback and supports more consistent reporting (particularly ahead of CARO-level aggregation), while also strengthening stakeholder relationships and buy-in.

Engage respondents on the revised scorecard well in advance of first reporting
Engage with respondents early on the revised structure, definitions and feasibility of requirements. This will maximise buy-in, identify elements that are challenging to complete, and allow respondents to align internal reporting arrangements to the revised scorecard.

Maintain the existing feedback loop with sectors rather than formalising interviews
Continue the current process of providing feedback to sectors prior to publication and facilitating engagement where required. Stakeholder feedback on this aspect of the existing process was strongly positive. Given mixed views on formal interviews (and concerns about resourcing, consistency and transparency), retaining a flexible engagement model is preferable.

Introduce cumulative assessment alongside annual reporting
Adopt a cumulative assessment approach while retaining annual reporting and updates. This aligns with stakeholder preferences and international practice and provides a clearer longer-term purpose and narrative of progress, while remaining operationally manageable. This can be achieved by assessing categories over a rolling multi-year basis (e.g. 3 years), rather than solely on activity within a single year and by reporting year-on-year direction of travel using consistent scoring to support trend analysis.

Develop an interim semi-quantitative assessment based on cumulative staged progress
In the absence of mature outcome indicators, consider an interim semi-quantitative progress measure that summarises cumulative progress towards resilience/reduced vulnerability based on the nature of actions implemented over time (using a revised staged framework). Weighting decisions should be transparent if implemented, recognising stakeholder views that weighting could reflect relative importance of 'delivery' versus 'capacity-building' while also avoiding unnecessary complexity.

Develop an online submission portal, supported by an editable offline questionnaire and crucially a robust, well-considered data architecture
Progress the development of an online portal for submission, designed around respondent workflows and CCAC data export / reporting needs:

- Provide an editable word version of the questionnaire to enable circulation across key sectoral stakeholders (including semi-state and private sector service providers) prior to final collation and submission, with formatting that supports word limits and consistency.

- Design and build a robust data structure capable of storing structured data (aligned to the revised framework) and capable of accommodating indicators as they are agreed over time.
- Develop an online dashboard that supports learning (e.g., searchable case studies; trends by sector; distribution of actions by type). Determine access arrangements (public vs respondent-only) early.
- Consult with respondents on platform choices to address cybersecurity, GDPR and systems access constraints; a Microsoft-based system (forms – dataverse – Power BI) is likely to be the most feasible approach in government departmental contexts, but this should be validated with users (including IT sections within departments).
- Ensure the database is designed for both data input and intended outputs/visualisations from the outset. This will require comprehensive consideration of the data export and reporting requirements to ensure that data can be queried in the desired format to support CCAC reporting and trend identification.
- Develop the questionnaire with structured responses to each question that can align with fields in a database, therefore supporting consistent aggregation (including across sectors and levels) and efficient analysis. This should include structured fields (e.g. drop-down menus/tags for sectors and sub-sectors and priority risks, defined date fields, yes/no fields and free text fields with word limits). Qualitative narrative should be separate from metadata and evidence links so that both that be queried consistently.

3.1 Proposed (refined) categories of assessment

The recommendations outlined above have collectively informed the proposed refined categories of assessment (Figure 8). The categories are structured to reflect a staged progress pathway, moving from foundational enabling conditions through to planning and delivery. Further details and a long description of each category is provided in Section 4.

BUILDING ADAPTIVE CAPACITY

Measures that strengthen the ability of organisations, sectors and communities to understand priority climate risks, make informed decisions , and plan and mobilise the resources, systems and partnerships needed to implement effective adaptation.

GOVERNANCE INSTRUMENTS	FUNDING & RESOURCES	RISKS AND IMPACTS	KNOWLEDGE BUILDING, TRAINING AND ENGAGEMENT	RESEARCH AND PILOTS	STAKEHOLDER COORDINATION
The development, adoption and formalisation of adaptation plans, policies, strategies, guidelines and regulations, and the communication and dissemination of these to relevant stakeholders.	The extent to which sufficient financial resources and human capacity have been in place to enable delivery of adaptation actions and plans in full and on time, and to identify any material or funding-related gaps.	The extent to which priority climate risks and associated vulnerabilities impacting your sector or administrative area have been identified, assessed, quantified and mapped in order to inform adaptation planning, investment and implementation.	The extent to which awareness, understanding and capability on climate adaptation is developed across the sector / organisation through communication, training and learning activities.	The extent to which formal research and pilot projects are undertaken or commissioned to generate evidence for the purpose of informing adaptation decision-making and improving understanding of priority risks.	The extent to which formal structures and processes are in place to coordinate adaptation activity across sectors and levels (including between sectors and local authorities) and with relevant external delivery partners and affected stakeholders, including for major emergency planning.

DELIVERING ADAPTATION

Interventions that reduce risk and increase resilience

TECHNICAL AND ENGINEERED SOLUTIONS	HYBRID	NATURE-BASED SOLUTIONS
Non- nature-based interventions that reduce climate risk and improve resilience through engineered, technical, digital or operational measures.	Measures that are intentionally a combination of technical and engineered solutions and nature-based solutions	Solutions that are supported by nature, simultaneously providing environmental, social and economic benefits while building resilience.

Figure 8: Proposed refined categories of assessment

4 Proposed questions and evaluation criteria for revised scorecard questionnaire

In this section, proposed questions and evaluation criteria for each of the proposed new categories are provided. These aim to address key original objectives of this Review, including improving transparency of the evaluation process, streamlining the evaluation, providing a proposed approach to introduce quantitative indicators, as well better reflecting activity at a local and sub-sectoral level.

A four-stage evaluation framework is proposed (see Figure 9). For each stage, clear draft qualitative criteria are provided for each question, setting out explicitly how submissions will be assessed. This approach streamlines the evaluation by reducing reliance on numerical scoring, and subsequent conversion to a traffic light outcome via a process that is currently time-consuming, perceived as subjective and insufficiently transparent for respondents. Introducing clear, staged definitions should support a more objective, consistent, and transparent evaluation process.



Figure 9: A proposed four-stage evaluation framework.

In some categories, quantitative indicators are proposed to support a further objective of assessing where the introduction of quantitative assessment may be feasible. Stakeholder feedback strongly indicated that quantitative indicators should not be defined by CCAC but should be developed collaboratively with sectors and local authorities. The engagement exercise also confirmed that routine data collection to support consistent indicator reporting is not currently reliable or standardised across respondents. As a result, it is not considered feasible at this stage to report on the proposed quantitative indicators (Figure 6) with a sufficient level of confidence. Accordingly, the quantitative indicators included in the revised approach are confined to data that can be derived directly from questionnaire responses or from readily available information that respondents should be able to provide without additional burden by aligning with existing reporting obligations.

Finally, by assigning a numerical score to each of the four-stages of assessment it will be possible to derive a consistent semi-quantitative measure of progress for each sector across both 'building adaptive capacity' and 'delivering adaptation'. This approach also allows for category weighting to be applied, should this be desirable. The cumulative nature of the assessment is reflected in the question design, with many responses seeking cumulative evidence or evidence over a rolling three-year period to better align with the longer timescales associated with planning and delivering large-scale adaptation interventions. In addition, consistent with international practice, it is proposed that sectors are reported as having 'improved', maintained progress' or 'worsened' relative to the previous scorecard cycle. This retains a clear incentive for continual improvement while avoiding the negative perceptions associated with competitive ranking, which stakeholders identified as a barrier to collaborative learning. The questionnaire is applicable across all levels (national, sectoral and LA).

4.1 Section A: Building Adaptive Capacity

Measures that put in place the enabling conditions required for effective climate adaptation. This includes strengthening understanding of priority climate risks (as set out in the NCCRA), developing and embedding the formal governance framework (plans, policies, strategies, guidance and regulatory instruments), ensuring appropriate resourcing and capability (financial and human), and establishing the risk evidence base. It also includes building knowledge and skills through training and learning, undertaking targeted research and pilot studies to address evidence gaps, and maintaining coordination structures and processes (including cross-sectoral and multi-level engagement) to ensure integrated delivery of adaptation across multiple relevant actors. The emphasis is on improving preparedness and implementation readiness, so that adaptation actions can be delivered effectively, consistently and at scale.

4.1.1 Governance Instruments

The extent to which a sector has established and embedded the formal policy and decision framework for climate adaptation. This includes the development, approval and adoption of adaptation plans, policies, strategies, guidelines and regulatory instruments (including revisions and updates), and the systematic communication and dissemination of these to relevant internal and external stakeholders to support consistent understanding and application.

A1. What climate adaptation governance instruments are in place in your sector/organisation (plans, policies, strategies, guidelines, regulatory instruments for which you hold ownership), and when were these adopted, last reviewed or materially updated? How are these instruments integrated into processes and disseminated to ensure consistent understanding and application across <u>all</u> relevant internal and external stakeholders (e.g. formal communications, guidance notes, procurement or contractual requirements etc.).

Name of Governance instrument	Sector/LA (incl. subsector where relevant)	Date adopted / published	Date and outcome of last review (e.g. updates) *(100 words)*	Relevant stakeholders (internal & external organisations, groups) *(List)*	How is it integrated into processes and disseminated to support consistent implementation? *(200 words)*	Supporting evidence/links
Evaluation criteria: **Strong:**						

- Strong evidence that substantive reviews are routinely undertaken (i.e. consideration of updated risks, review of scope) and forward review arrangements are in place. - Complete and functional stakeholder lists are provided, including delivery-critical external actors where relevant (e.g. farmers, land managers, utilities, private operators). - There is clear evidence of dissemination and process integration targeted at relevant stakeholders, such as integration into decision templates, mandatory guidance for teams/projects, formal communications/circulars, compliance checks. **Good** - Strong evidence that reviews are typically undertaken within an appropriate timeframe, with some evidence of gaps. Forward review arrangements are typically in place. - Stakeholder list is generally complete and some of the main external stakeholders identified, but some gaps are evident. - Evidence of dissemination and process integration targeted at some of these stakeholders, but coverage is not comprehensive. **Needs Improvement** - Some reviews have been undertaken but not within an appropriate timeframe and no forward review arrangements are in place. - Internal stakeholders are evident but key external stakeholders are missing. - Dissemination and process integration are limited and/or insufficiently targeted **Weak** - No reviews undertaken and no forward review cycle in place. - Stakeholder list omits key internal and external stakeholders - No process integration and dissemination limited to passive online publication.
CARO aggregation: Combine and submit all LA submissions in one table for collective evaluation

4.1.2 Funding and Resources

The extent to which sufficient financial resources and human capacity (including staffing levels, skills and dedicated time) are secured and allocated to implement adaptation actions and plans in full and within intended timeframes. This sub-category assesses whether resourcing is appropriate to the scale and complexity of planned delivery and seeks to identify the nature and significance of any shortfalls. It is intended to clarify where implementation risks are driven by resourcing constraints, including the extent to which funding gaps, workforce capacity limitations or access to external resources (e.g. procurement, specialist expertise) are materially affecting progress.

A2. Approximately how many staff (FTE) are employed in your department/local authority?

A3. How many staff have dedicated time allocated for work in support of climate adaptation (FTE)?

A4. How many adaptation actions are included in your LACAP / SAP / NAF (including additional actions approved following publication)?

A5. How many of these actions have been delayed or not completed (i.e. by the specified timeframe for delivery in the LACAP / SAP / NAF) due to resourcing constraints (financial and/or human?)

A6. Please provide details for all actions that have been delayed or not completed in the required timeframe due to resourcing constraints (financial and/or human)?

Action Number	Sector/ LA (incl. subsector where relevant)	Action	Timeframe for delivery stipulated in LACAP/SAP/ NAF	Updated timeframe for completion	Please provide a summary of financial resourcing constraints, including details of delivery impact (timeframe, scope, quality of delivery) and any steps taken to try and address these constraints. *(200 words)*	Please provide a summary of human resourcing constraints (core staff, expertise/skills, and external resources where relevant), including details of delivery impact (timeframe, scope, quality of delivery) and any steps taken to try and address these constraints. *(200 words)*	Evidence
Evaluation Criteria: **Quantitative indicator**: proportion of staff with dedicated time allocated for work in support of climate adaptation? **Quantitative indicator**: % of adaptation actions that are delayed due to financial or human resourcing constraints (intended to inform systemic barriers to adaptation action rather than as a measure of assessment for the CARO region or sector directly)							
CARO aggregation: Total sum of LA answers for A2, A3, A4 and A5. Combine and submit all LA answers for A6 in one table.							

4.1.3 Risks and impacts

The extent to which observed impacts and priority climate risks impacting your sector (as set out in the NCCRA) or administrative area have been identified, assessed, quantified and mapped in the context of statutory functions, assets, services and communities. This includes developing and maintaining evidence on exposure and vulnerability; using appropriate data and methods to estimate the scale and likelihood of risk (including through

geospatial mapping); applying the results to prioritise adaptation actions, target resources and inform decision-making. The emphasis is on producing risk information that is capable of guiding planning and delivery with an ability to update as climate projections and observed impacts evolve.

A7. To what extent has climate risk been assessed and geospatially mapped in relation to (a) statutory functions, assets and services (internal), and (b) external stakeholders and affected groups relevant to your remit (e.g. communities/households, farms/land managers, utilities/private operators, businesses/community groups)? Please summarise what risks have been assessed, mapped and how this is being used to inform decision making.

Priority risk *(select from list)*	Sector/LA (incl. subsector where relevant)	Details of internal assessment (functions, assets, services at risk) *(150 words)*	Details of external assessment (stakeholders, groups affected) *(150 words)*	Details of geospatial risk mapping that has been undertaken (or is planned) (e.g. exposure maps, vulnerable assets/services/communities/ critical infrastructure)? *(150 words)*	Please summarise how these risk assessments have been used to inform decisions, investments or asset protection measures? *(150 words)*	Evidence/links

Evaluation criteria:

Strong

- Clear evidence that all of the relevant priority climate risks have been or are being assessed for core statutory functions/services/assets and for relevant external stakeholders and affected groups.
- Evidence that geospatial risk mapping has or is being undertaken and is being used to inform decision-making.

Good

- Clear evidence that most relevant priority climate risks have been or are being assessed for most core statutory functions/services/assets and for most relevant external stakeholders and affected groups.
- Evidence that geospatial risk mapping has been undertaken or is planned in the next reporting cycle.

Needs Improvement

- Limited evidence that climate risks are being assessed for core statutory functions/services/assets and relevant external stakeholders and affected groups.

- Limited evidence of geospatial risk mapping or planning. **Weak** - No evidence that climate risks are being assessed for core statutory functions/services/assets or for relevant external stakeholders and affected groups. - No evidence of geospatial risk mapping or planning
CARO Aggregation: Combine and submit all LA submissions in one table for collective evaluation

A8. What arrangements (if any) are in place to record observed climate impacts and losses (e.g. service disruptions, asset damage, community impacts) including whether a damage/impact register exists and if so, what information is recorded and how is this used?

Sector/LA (incl. subsector where relevant)	
Are observed climate impacts and losses routinely recorded? Y/N	
If yes, what information is recorded (e.g. nature of event, number of people impacted, location of impacts, nature and length of service disruption etc.)	
How is this information used to inform decision-making?	
Evidence/links	
Evaluation criteria: **Strong:** - A systematic approach to recording climate impacts/losses and consolidating these into one overall record is in place (e.g. a damage register or consistent logging process embedded in normal operations) - Recorded information is sufficient to support analysis (e.g. event type, assets/services affected, type of impact, severity/cost, response actions) - Strong evidence that the records are reviewed and used to inform decisions (e.g. priorities, design standards, maintenance planning, emergency preparedness). **Good:** - Routine recording of climate impacts/losses exists but records are not consolidated into a single register. - Recorded information has the potential to support analysis (e.g. event type, assets/services affected, type of impact, severity/cost, response actions) but there is some evidence of inconsistency or gaps. - Some evidence that the records are reviewed and used to inform decisions.	

Needs Improvement - Inconsistent or ad hoc recording of climate impacts/losses with no consolidation into a single register. - Recorded information is too patchy and inconsistent to support analysis. - Records insufficient to support decision-making. **Weak** - No recording of climate impacts/losses - No evidence that observed climate impacts are informing decision-making
CARO Aggregation: One response indicating the number (proportion) of LAs routinely recording observed climate impacts and losses (including details of what information is recorded and how this is used to inform decision making)

4.1.4 Knowledge building, training and engagement

The extent to which awareness, understanding and capability on climate adaptation is developed and maintained across the sector/organisation through structured communication, training and learning activities. This includes staff training and professional development to strengthen adaptation knowledge as well as ongoing learning and engagement activities that embed adaptation considerations into routine planning, operational and investment decisions. The emphasis is on consistent, organisation-wide capability building (including elected members in LAs) that supports effective implementation of adaptation actions over time.

A9. What communication, training and learning activities have been undertaken over the last three years to build awareness, understanding and capability on climate adaptation across the organisation / sector? Please list only those activities that relate specifically to climate adaptation which is defined in the NAF as '*A change in natural or human systems in response to the impacts of climate change. These changes moderate harm or exploit beneficial opportunities and can be in response to actual or expected impacts*'.

Type of activity (Title and delivery format)	Sector/LA (incl. subsector where relevant)	Purpose/objective *(100 words)*	Target audience	Mandatory or optional?	Number of attendees	Recurring or one-off (if recurring please indicate frequency)
Evaluation criteria: **Strong:**						

- Activities form a coherent and adaptation-relevant programme with a variety of formats appropriate to the organisation/sector and recurring activities in place - Objectives are specific and clearly linked to adaptation capability (e.g. understanding risks, interpreting risk information, applying adaptation in decision making, sharing best practice adaptation outcomes). - Target audiences are well-defined and include the key roles/functions required for implementation. - The balance of mandatory vs. optional is appropriate (i.e. sufficient mandatory engagements to ensure a critical baseline awareness and capability is developed). - The level of attendance demonstrates meaningful reach across the intended audience and organisation **Good:** - A clear range of adaptation-relevant activities are in place with at least some recurring provision - Objectives are generally clearly linked to adaptation capability. - Target audiences are mostly appropriate and include most of the key roles/functions required for implementation. - The balance of mandatory vs. optional is sufficient, but baseline coverage may need to rely on some level of optional participation - The level of attendance is reasonable to achieve good reach across the intended audience and organisation **Needs Improvement** - A range of activities is evident but the overall programme is limited (e.g. insufficient focus on climate adaptation, limited or no recurring provision, lacking variability). - Objectives are less clear or generic - Target audience is specified but key roles or functions that may be required for implementation are missing - Insufficient level of mandatory activities to achieve necessary baseline coverage. - Attendance records are provided but attendance is weak or not aligned with the target audience **Weak** - No activities listed or activities that do not clearly link to climate adaptation capability - Objectives not specified or consistently generic - Target audience not specified and purpose/objective unclear - No mandatory activities - Attendance poor or not provided

Quantitative indicator: What percentage of all staff in your organisation (e.g. department, local authority) have engaged in a training or learning activity during the reporting year that aimed to build awareness, understanding and capability on climate adaptation?	**%**

CARO aggregation Combine and submit all LA submissions in one table for collective evaluation (and provide one aggregated quantitative indicator)	

4.1.5 Research and pilots

The extent to which the respondent is generating new evidence to support climate adaptation through formal research activity and pilot projects. This includes undertaking or commissioning studies, trials or demonstrations that improve understanding of priority climate risks, test adaptation approaches or technologies to evaluate feasibility and effectiveness. The emphasis is on research and pilot projects that are clearly linked to informing adaptation planning and delivery.

A10. Please list any ongoing or recently concluded (i.e. within the reporting year) formal research and/or pilot projects that support climate adaptation and are linked to informing adaptation planning and delivery.

Sector/LA (incl. subsector where relevant)	**Project type** (research or pilot project)	**Name of project**	**Priority risks the project aims to address** *(select from list)*	**Purpose** (i.e. what knowledge gap is the project aiming to address?)	**Stage of project** Scoping, underway, completed	**Evidence** (URL, outputs etc.)

Evaluation criteria:

Strong:

- Research/pilot projects are clearly adaptation relevant and explicitly linked to priority climate risks (as per NCCRA and/or sectoral and local priorities)
- Evidence links are provided and sufficient to verify the project and its outputs and progress

Good:

- Research/pilot projects are clearly adaptation relevant and there is some evidence these are linked to priority climate risks.
- Evidence links are provided and sufficient to verify the project and its outputs and progress

Needs Improvement

- Research/pilot projects are somewhat adaptation relevant but the link to priority climate risks is unclear
- Evidence links are provided, but it is not possible to verify outputs or assess progress.

Weak

- It is not clear how the projects listed relate to climate adaptation or priority climate risks

- Evidence provided is insufficient to verify outputs or assess progress
CARO Aggregation: Combine and submit all LA submissions in one table for collective evaluation

4.1.6 Stakeholder co-ordination

The extent to which formal coordination mechanisms exist to enable integrated adaptation action across multiple organisations, sectors and levels of governance, including where delivery depends on external actors. This includes establishing and maintaining cross-sectoral and multi-level institutional structures (e.g. coordination between sectors, agencies and local authorities) with defined membership and terms of reference; agreed processes for collaboration and decision making; arrangements for sharing information, aligning priorities and coordinating delivery where responsibilities and dependencies are distributed. It also includes coordination with relevant external delivery partners and affected stakeholders (e.g. farmers and land managers, semi-state or private sector service providers, regulators, business/community groups, NGOs, academia) where these actors have a material role in implementing or enabling adaptation actions. Major emergency planning and response coordination structures that bring together all necessary stakeholders to support integrated preparedness and effective management of extreme events are included within this sub-category. The emphasis is on coordination arrangements that enable joined-up implementation and reduce fragmentation or duplication, rather than on the development of plans / policies (captured under the governance sub-category) or capability/awareness activities (captured under the knowledge building, training and engagement sub-category).

A11. Please list the formal coordination mechanisms currently in place that support integrated adaptation delivery across organisations/sectors/levels (including major emergency planning/response structures where relevant). For each, summarise purpose, participants (organisations), what it achieved or enabled in practice.

Sector/LA (incl. subsector where relevant)	Coordination mechanism (name)	Purpose/scope	Membership (roles and organisations)	Cross-sectoral/multilevel? (Y/N)	Terms of reference in place?	Frequency (e.g. monthly, quarterly)	Outcomes (key decisions, delivery) *(150 words)*	Evidence links
Evaluation criteria: **Strong:**								

- Clear formal coordination mechanisms are evidenced, including cross-sectoral and multi-level structures (e.g. between relevant sectors, agencies and local authorities) and major emergency planning/response coordination structures.
- Mechanisms have defined purpose / scope, relevant membership (including external stakeholders where relevant) and agreed terms of reference and meet with appropriate frequency.
- Always evidence of practical value in supporting adaptation implementation and decision making

Good:

- Formal mechanisms are in place, including cross-sectoral or multilevel structures and with major emergency planning/response coordination structures
- The purpose and scope of mechanisms is clearly defined, but there are some gaps evident in their alignment with relevant membership, terms of reference and operational frequency.
- Some evidence of practical value in supporting adaptation implementation and decision making

Needs Improvement

- Formal mechanisms are in place, however there is insufficient cross-sectoral or multilevel engagement to support integrated adaptation decision making.
- The purpose and scope are poorly defined with gaps evident in their alignment with relevant membership, terms of reference and operational frequency.
- Limited evidence of practical value in supporting adaptation implementation and decision making

Weak

- Limited or no evidence of formal mechanisms in place or no evidence of any cross-sectoral or multilevel engagement to support integrated adaptation decision making
- The purpose and scope are not defined
- Evidence provided is insufficient to verify outputs or assess progress
- No evidence of practical value in supporting adaptation implementation and decision making

CARO Aggregation: Combine and submit all LA submissions in one table for collective evaluation

4.2 Section B: Delivering Adaptation

This category refers to the implementation of tangible interventions that reduce climate risk and improve resilience. This includes the delivery of measures that protect people, assets, services and communities from priority climate risks and improve resilience to extreme events. The emphasis is on actions that move beyond enabling conditions and result in real world risk reduction, supported where possible with evidence of implementation progress and performance.

The category includes three types of action:

Technical and Engineered Solutions

Technical, technology-led and engineered interventions designed to reduce exposure to climate hazards, limit damage, and maintain the continuity of services. This includes the design, construction or upgrade of built assets and operational systems (e.g. flood defences and drainage upgrades, coastal protection works, strengthening or retrofitting critical infrastructure, increasing storage/capacity/redundancy in networks such as water, energy, transport, communications), as well as technology-enabled and operational measures that support risk reduction (e.g. monitoring and early warning systems, decision support tools, digital platforms or applications). The emphasis is on non-nature-based interventions that deliver tangible risk reduction through engineered, technical, digital or operational solutions.

Hybrid

Solutions that deliberately integrate nature-based solutions with technical and engineered measures. Hybrid approaches may use natural systems to reduce exposure and manage risk while engineered components provide additional protection, capacity, control or service continuity. The emphasis is on the combined performance of the overall system, recognising that many projects include both nature-based and technical or engineered elements and are planned and delivered as integrated interventions.

Nature-based solutions

Solutions that are inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience. Such solutions bring more, and more diverse, nature and natural features and processes into cities, landscapes and seascapes, through locally adapted, resource-efficient and systemic interventions[23].

[23] https://research-and-innovation.ec.europa.eu/research-area/environment/nature-based-solutions_en

B1. Please list the adaptation interventions that became operational in the last 3 years, or that were progressed and supported during the reporting year, which are intended to reduce climate risk and improve resilience within your remit. This should include both directly implemented interventions (delivered by your organisation / department) and interventions enabled or supported by you but delivered by external implementers (e.g. LAs, utilities, semi-state agencies), where your support is material through a funding, regulatory or coordination role.

Sector/LA (incl. subsector where relevant)	Intervention *(NB, please do not include details of pilot projects here. These should be included in the Research and Pilots category above)*	Type (technical or engineered, hybrid, nature-based solution)	Your role (implementer, enabler or coordinator) *	Priority risks addressed *(select from list)*	Status (planned, in progress, operational)	Please explain the rationale for choosing a technology or engineered/hybrid or nature-based solution in this case? *(200 words)*	Intended resilience benefit (e.g. scale of protection, and what is being protected) *(200 words)*	Implementation progress and performance (e.g. delivery milestones, operational performance, early outcome signals, challenges encountered, lessons learned) *(500 words)*	Evidence links

**Implementer – you deliver, construct, operate the intervention*
Enabler – you set direction, requirements or provide resources that materially enable delivery (e.g. funding, regulation/standards)
Coordinator – you convene multiple actors to align delivery where responsibilities are distributed

Please indicate if you give permission for your response to be shared with other sectors to support cross-sectoral learning and shared best practice. Y/N

Evaluation criteria:

Strong:

- Interventions are appropriately linked to priority risks and demonstrate material and plausible resilience benefit at an appropriate scale (e.g., protects critical services/assets/communities; addresses significant exposure/vulnerability), with rationale clearly stated.

- Strong evidence of implementation is provided i.e. milestones achieved, delivery status is clear, and monitoring/performance information is available or planned with defined timelines.
- Clear consideration of maladaptation risk is evident (e.g., avoids locking in vulnerability, does not shift risk elsewhere).
- The balance of nature-based solutions, technical/engineered solutions and hybrid interventions is clearly justified as appropriate in the sectoral context (including recognition of where certain intervention types are more or less feasible).

Good:

- Interventions are generally linked to priority risks and demonstrate a credible resilience benefit, with the rationale described, though the scale of benefit and/or linkage to exposure/vulnerability may be less clear.
- Evidence of implementation is provided and monitoring/performance arrangements are described, although timelines and/or detail may be limited.
- Consideration of maladaptation risk is noted and broadly reflected in the approach but is lacking detail.
- The balance of intervention types appears broadly appropriate to the sector, but the rationale would be strengthened by clearer consideration of whether nature-based solutions could be applied.

Needs Improvement

- Interventions are not consistently linked to priority risks and/or the scale of resilience benefit is not clear and the rationale may be generic or not well evidenced. Interventions may appear opportunistic rather than risk-driven.
- Implementation progress is described but evidence is limited (e.g., milestones and status are not consistently clear, monitoring/performance information is vague, incomplete or not time-bound).
- Maladaptation risk is not clearly addressed or is referenced only in general terms.
- The balance of intervention types is weakly justified within the sectoral context

Weak

- No interventions or interventions are not clearly linked to priority risks and/or the resilience benefit is unclear or not plausible at the scale described, with limited rationale provided.
- Little or no evidence of implementation is provided (e.g., delivery status and milestones are unclear), and monitoring/performance arrangements are absent or not credible.
- No consideration of maladaptation risk is evident
- There is insufficient consideration of the potential range of intervention choices within the sectoral context.

CARO Aggregation: Combine and submit all LA submissions in one table.

5 Example of overall sectoral scorecard

This section sets out an illustrative approach to presenting results under the proposed revised scorecard. It demonstrates how the staged qualitative assessment can be translated into a consistent semi-quantitative scoring method to support aggregation, reporting and trend analysis across both 'building adaptive capacity' and 'delivering adaptation'. The examples below are intended to show the proposed reporting format at individual sector/CARO level and across all sectors, including how progress can be communicated year on year without necessarily relying on competitive ranking.

By assigning a numerical value to each of the four assessment stages it will be possible to derive a consistent semi-quantitative measure of progress for each sector across each category of assessment. This provides a straightforward and transparent basis for aggregating results and tracking change over time. The indicative scoring is set out in Table 5 and is intentionally simple at this stage. This can be further refined as the scorecard is operationalised, including through the use of a wider numerical scale and/or the application of category weightings where this is considered appropriate.

Table 5: Example of how qualitative scores can be converted to quantitative to enable a consistent semi-quantitative measure of progress towards building adaptive capacity and delivering adaptation.

Qualitative Score	Semi-quantitative Score
Strong	4
Good	3
Needs Improvement	1
Weak	0

Table 6 below summarises the hypothetical scorecard results for an example sector. Each sub-category is assessed using the four-stage qualitative scale and converted to a numerical score (as in Table 5). These numerical scores are aggregated to produce percentage scores for the two primary categories 'building adaptive capacity' and 'delivering adaptation'. An overall progress label is reported for each sub-category as well as for aggregated results, indicating whether progress has improved, been maintained or worsened since the previous scorecard cycle. Weighting has not been applied in this example, but it would be possible to add weighting as desired.

Table 6: Illustrative example of how sectoral/CARO results may be reported under the proposed revised scorecard.

Example sector				
Category	**Sub-category**	**Qualitative assessment**	**Score**	**Overall progress (against previous scorecard cycle)**
	Governance	Strong	4/4	Improved
	Risks and impacts	Weak	0/4	Worsened

Building adaptive capacity	Knowledge building, training and engagement	Good	3/4	Improved
	Research and pilots	Needs improvement	1/4	Maintained
	Stakeholder coordination	Needs improvement	1/4	Maintained
	Funding and resources	**1%** of staff with dedicated time allocated for work in support of climate adaptation **25%** of actions delayed due to resourcing constraints	n/a	Worsened
Delivering adaptation	Adaptation interventions (incl. technology/engineered, hybrid and nature-based solutions)	Needs improvement	1/4	Maintained
Aggregated score for Example Sector				
Building adaptive capacity			9/20=45%	Worsened (-xx%)
Delivering adaptation			1/4=25%	Improved (+xx%)
Total score			**10/24=42%**	Improved (+xx%)

Table 7 illustrates how aggregated scorecard results can be displayed and reported across all sectors. For each sector, the table presents the overall percentage scores for 'building adaptive capacity' and 'delivering adaptation' alongside the progress descriptor relative to the previous scorecard cycle. The percentage change from the previous cycle can also be reported to make year-on-year progress explicit, supporting comparative tracking of progress over time while avoiding direct ranking in line with stakeholder feedback.

Table 7: Illustrative example of how aggregated scorecard results can be reported across all sectors.

	Building adaptive capacity		**Delivering adaptation**		**Total**	
	Score	*Progress against previous scorecard*	*Score*	*Progress against previous scorecard*	*Score*	*Progress against previous scorecard*
Sector 1	45%	Worsened (-xx%)	75%	Improved (+xx%)	60%	Improved (+xx%)
Sector 2	65%	Improved	0%	Worsened	33%	Worsened

		(+xx%)		(-xx%)		(-xx%)
Sector 3	30%	Maintained	50%	Maintained	40%	Maintained
Sector 4	40%	Worsened (-xx%)	25%	Improved (+xx%)	33%	Improved (+xx%)
CARO 1	80%	Improved (+xx%)	25%	Improved (+xx%)	53%	Improved (+xx%)

Tables 5-7 demonstrate how the revised evaluation approach can in practice support clear and comparable reporting across sectors and CARO regions, while maintaining transparency and enabling tracking of change over time. The approach provides flexibility to introduce refinements as the scorecard is operationalised, including adjustments to the scoring scale, application of weighting, or refinement of qualitative assessment criteria where desired. The next sections summarise the overall conclusions from the review, key benefits of the proposed approach and recommended next steps towards implementation.

6 Conclusions and summary

This review was undertaken to align the Adaptation scorecard with new policy frameworks to ensure it remains an effective annual monitoring tool for the 2026-2030 period. Informed by a comprehensive stakeholder engagement exercise and review of international practice, new categories of assessment and an updated questionnaire are proposed. These aim to align with stakeholder priorities and activity, reduce overlap between categories, and strengthen the links between local and sectoral activity. New evaluation criteria are proposed which aim to streamline the evaluation process whilst also improving transparency for respondents. This revised approach aims to:

Align to current policy and the NCCRA

The revised framework of categories is proposed to provide a clear and coherent structure for assessing adaptation activity across sectoral and local scales. It is linked to priority climate risks (as set out in the NCCRA) and is designed, in the absence of defined adaptation outcomes or outcome indicators in Ireland, to reflect an adaptation 'progress pathway' from enabling conditions through to the delivery of tangible risk-reduction interventions. This strengthens the alignment with the updated policy framework and supports a clearer assessment on how reported actions contribute to resilience outcomes over time.

Capture the full range of adaptation activity while reducing overlap

The original mapping of adaptation actions, and subsequent stakeholder engagement exercise has demonstrated that the revised framework is capable of capturing the full breadth of activity across the LACAPs and SAPs. The revisions following the stakeholder engagement exercise address previous areas of ambiguity and overlap as perceived by respondent stakeholders and evaluators – particularly between enabling and 'soft' categories such as training, awareness and stakeholder engagement. This clarity is reinforced through structured response fields that guide respondents to provide information in a consistent and comparable manner. The proposed approach consolidates the current process into a single questionnaire that is relevant across sectors and local government.

Improve assessment at local government level

Stakeholder feedback highlighted that the current scorecard does not reflect the breadth of activity across the local government sector. The proposed approach supports aggregation at CARO level to enable assessment across the four CARO regions, therefore improving local government assessment whilst balancing the limited resources available for the evaluation process.

Strengthen consideration of cross-sectoral and multi-level coordination
Stakeholders consistently emphasised the importance of integrated, system wide resilience, and the need for cross-sectoral and multi-level coordination to address complex and cascading risks. The revised framework of categories strengthens assessment of such coordination and integrated delivery through a distinct stakeholder coordination category, explicitly incorporating cross-sectoral and multilevel coordination structures and recognising the role of major emergency planning as a critical element of preparedness and response. The revised 'delivering adaptation' question captures not only interventions directly delivered by a respondent, but also those enabled or coordinated through policy direction, funding, regulation or standards. This aims to reflect and capture delivery dependencies in sectors where implementation is led by external actors (including local authorities, semi-state and private sector service providers).

Provide a pragmatic approach to quantitative indicators
While international practice highlights the value of quantitative indicators, Ireland has not yet defined resilience outcomes or established a comprehensive set of outcome indicators. Stakeholder feedback strongly cautioned against imposing sector-wide or local authority indicators in the absence of consistent and routine data collection to support these. The proposed approach therefore introduces a small number of quantitative measures derived directly from questionnaire responses and aligned with information that should be readily available to respondents. This supports the introduction of some quantitative reporting without creating a substantial additional burden.

Identify systemic barriers to implementation
Stakeholders expressed a strong preference for the scorecard to identify systemic funding and resourcing barriers to delivery rather than focusing on expenditure for adaptation measures which was generally not considered accurate or informative. The proposed approach enables identification of actions that are delayed or constrained by funding, staffing, skills or external expertise shortfalls and challenges. Over time, this will enable identification of systemic barriers to progress.

Streamline and enhance transparency of evaluation
A key recommendation is the introduction of clearly defined qualitative assessment criteria for each question, using staged descriptors for each traffic light rating. This approach is tested in the international context and reduces reliance on numerical scoring that is subsequently converted into traffic light outcomes in a process that respondents perceived as lacking transparency. This proposed approach should support consistency and objectivity and provide respondents with a more explicit understanding of what constitutes progress.

Offer flexible aggregation and assessment
The proposed evaluation approach offers a flexible, semi-quantitative aggregation method that can support tracking across years and if desired the application of category weighting to reflect priorities (e.g. by placing greater emphasis on delivery of risk-reducing interventions over time). By assessing sectors as having 'improved', 'worsened' or 'maintained' progress, respondents have a clear motivation to continually develop and improve adaptation action without a

scorecard ranking which the majority of stakeholders did not favour and viewed as a barrier to shared learning and collaboration.

Support the development of online submission and evaluation

The proposed move to online submission is supported by the structured design of the revised questionnaire, which uses defined answer fields to separate qualitative narrative from metadata and evidence. This provides the foundation for a robust underlying data architecture, enabling consistent responses that can be queried across sectors and levels. It also supports the development of an online dashboard that can aggregate results during and after evaluation, for example by priority risk, category, or intervention type. It will also enable systematic analysis of trends over time, including year-on-year progress tracking and identification of systemic barriers to implementation.

Support collaboration and best practice learning

The revised approach aims to strengthen the scorecard as a shared learning tool. In particular the 'delivering adaptation' responses aim to capture concise and comparable case studies that describe the intervention type as well as the priority risk it aims to mitigate. The scale and nature of resilience benefit is captured as well as key implementation and operational lessons. By explicitly asking respondents whether they are willing for their responses to be shared (noting that a majority of stakeholders indicated a willingness to do so) the scorecard can build a library of practical examples over time to support learning across sectors and local authorities. Over time, this should enable respondents to identify relevant approaches for comparable risks and contexts, understand what did and didn't work in practice, and anticipate common delivery barriers.

7 Recommended next steps

To ensure effective implementation of the revised scorecard, it is recommended that a short-life and focused implementation working group is established to finalise the design and operational arrangements. Key considerations for this working group should include:

- Review and approval of the revised category definitions provided in Section 3 (short definitions) and Section 4 (long definitions).
- Review and approval of the questionnaire, including precise wording, evidence requirements, and narrative word limits.
- Review and approval of the staged qualitative evaluation criteria to ensure these align fully with adaptation priorities and represent progress towards risk reduction and enhanced resilience.
- Confirm the scope including whether assessment at NAF level is useful or necessary (noting the limited number of actions, many of which relate to the production of the SAPs) and to review and approve the operational approach for CARO-level aggregation.
- Agree the approach to final semi-quantitative assessment and weighting, including whether category weighting should be applied and the numerical scale applied to traffic light ratings that will determine the final semi-quantitative score assigned to each sector.
- In light of stakeholder feedback, consider if any form of ranking should be maintained and then whether the term scorecard remains appropriate.
- Scoping for the development of an online model, including desired data reporting. Purpose, audience and key features of an online dashboard, consideration of future

inclusion of outcome indicators when available, and practical implementation considerations including choice of platform, security and GDPR issues. It is critical that these issues are considered so that the format of the questionnaire responses, including defined drop-down selections where relevant, can be aligned to meet future data and query needs.

Appendix 1: Stakeholder feedback

Stakeholder feedback: Local authorities, sectors and national

	Local Authority feedback	CARO / CCMA feedback	Sector and NAF feedback
Experience with current scorecard process	9 LAs indicated that as they do not report directly into the scorecard each year, the full range of activities will not be reflected currently, particularly adaptation measures that are not included in the LACAP. These LAs expressed a preference to contribute directly but via their CARO, provided the process is not burdensome. 4 LAs indicated that an annual snapshot will not be reflective of adaptation progress and that a cumulative assessment with annual updates would be preferable. This would enable trends and systemic barriers to progress to be identified. 1 LA indicated the purpose of the scorecard is not clear and that name 'scorecard' will lead to comparison and create a sense of dishonesty rather than an opportunity for shared learning. Suggested renaming to 'evaluation' or similar.	**Points raised:** The format of the questionnaire is 'a bit clunky' / not user-friendly for LAs and not fully representative of activity at LA level. Currently the questionnaire is sent to the CAROs from the Climate Action Committee of the CCMA. The CAROs complete the questionnaire and the response is reviewed by the CCMA before being returned to the CCAC. The response is currently coordinated by one CARO / person and is therefore not capturing the full picture of LA adaptation across the country including different perspectives and priorities. The term scorecard should be revisited to encourage collaboration so that Ireland as a whole works collectively towards resilience.	7 sectors indicated that having an opportunity to engage with the secretariat during the process is necessary and valuable. 6 sectors and DCEE / NAF did not favour the comparative nature of the scorecard (i.e. the ranking system). Reasons included it is discouraging, politically difficult, inhibits rather than promotes cross-sectoral learning, does not account for substantial differences between sectors, can lead to 'overegged' reporting or dishonesty. • One sector indicated that the scorecard should retain the ranking • Another sector suggested that if the ranking is maintained then the top ranked sectors should share their responses to support cross-sectoral learning. • One sector and DCEE / NAF suggested that comparing sectors internationally could be more useful

			6 sectors and DCEE / NAF favoured the introduction of bespoke sector-specific questionnaires to ensure all progress can be captured. 5 sectors suggested it is not possible to answer the question relating to financial resources for adaptation activities because either the budgets do not report adaptation finance separately, or the budget is held outside the department (e.g. semi-state agency or private sector). It was noted that fully integrated adaptation is essential for effective adaptation, so isolating adaptation expenditure is not possible. 3 sectors and DCEE / NAF indicated that annual evaluation is not (always) reflective of the effort required for the implementation of longer-term actions (e.g. large infrastructure projects, land use changes). Evaluation of cumulative progress over a number of years would be preferable, potentially alongside a broader annual 'update' which was also considered useful. One sector preferred an annual assessment process. 1 sector found the pre-formatted training log spreadsheet difficult to complete / manipulate

Data capture and availability	All LAs confirmed they undertake LGMA and NOAC reporting in Jan-Feb and indicated a strong preference for scorecard reporting to align with this (between Jan-April) in order to minimise the reporting 'burden'. 5 LAs indicated that advanced sight of the revised scorecard as soon as is feasible would be helpful to enable their internal reporting structures to align with anticipated reporting requirements. Internal reporting structures vary from continuous reporting (via online data tracking tools) to periodically in line with climate action committees to annually. All LAs are reporting at least annually on LACAP progress. 4 LAs indicated that substantial internal liaison across sections of the LA is required to capture progress on adaptation actions (either in the LACAP or additional activity). An online scorecard in these cases will only be feasible if accompanied by an editable questionnaire that can be circulated internally, with a final online submission being coordinated by the climate action coordinator.	Sectors need to work more collaboratively with each other and with LAs in order for LAs to work with them to achieve adaptation goals, including providing adequate funding, developing indicators and undertaking necessary research. Gathering information from all 31 LAs would be ideal as all LAs are different (different sizes, budgets, elected members priorities etc.). The CAROs would need to have a role to play in aggregating the responses but this would require a well-designed methodology. Assessment should be at CARO region level but needs to promote collaboration and not competition so the CAROs should not be ranked against one another.	All sectors indicated there will be regular or periodic implementation monitoring of SAPs which will assist with scorecard reporting. 7 sectors indicated that an online scorecard could be feasible but only if accompanied by an editable questionnaire that can be circulated to all relevant sectoral actors. Other potential issues raised included cybersecurity and GDPR issues. One sector indicated a preference for online reporting that facilitates continuous reporting throughout the year rather than annual reporting. 4 sectors (with clear sub-sectors) do not favour reporting for each sub-sector. Key reasons include the need for integrated action across sub-sectors and integrated governance across sub-sectors (at Department and Ministerial level).

	4 LAs stated a preference for adaptation monitoring to align with ongoing LACAP action progress reporting (i.e. actions started, not started, completed). 1 LA reported using a PowerBi dashboard to monitor adaptation progress and this could potentially feed directly into the scorecard.		
Feedback on quantitative indicators (Figure 8)	5 LAs confirmed that reporting on any quantitative indicators would be too burdensome / not possible at this time. 4 LAs confirmed that quantitative data is being captured though the LACAP KPIs and this could be provided if required. It is currently limited to LACAP actions only (i.e. implementation indicators) and their specified KPIs and would not capture the wider range of adaptation activity that may be undertaken. No LA that was interviewed is currently using outcome or impact indicators, however 5 indicated they are considering how to measure the impact of weather events (e.g. through the WIRE app, number of people engaging with community resilience hubs). **Other general comments:** Scorecard needs to be very clear what data is being requested for quantitative	Indicators need to be well thought out. Some proposed (Figure 8) would not be feasible at this stage (e.g. number of homes/businesses impacted by a weather event or the % change in urban green space). Consider the NOAC indicators as LAs are already reporting on these. There will be resistance to agreeing additional indicators at LA level. Consider biosphere indicators for the 'green' indicator. There will need to be a strong combined local and sectoral effort to agree indicators that are useful – this will need to be led by DCEE. The WIRE app could provide geospatial data on the impacts of weather events but it is not being taken up by most LAs. A national decision on what platform to	8 sectors and DCEE / NAF indicated that work is planned or ongoing, to develop sectoral quantitative indicators, including outcome indicators. 8 sectors and DCEE / NAF indicated that any quantitative indicators will need to be agreed by / with sectors, or the scorecard will need to align (where relevant) with existing indicators. 3 sectors cautioned in relation to accurate data capture for quantitative indicators and noted that resilience in their sector is heavily dependent on actions across sectors and / or LAs. DCEE / NAF suggested that the proposed quantitative indicators are not useful in assessing progress towards resilience and will be very challenging for sectors. They noted that Ireland may inherit international indicators so incorporating

	indicators (e.g. what sources of funding should be reported – LA funding for LACAP actions, funding released by LA (e.g. climate action fund), EU funding, LAWPRO etc.) The proposed quantitative indicators for the 'building adaptive capacity' actions were widely deemed to be more realistic at this stage than those for 'delivering adaptation' actions.	use for geospatial data capture and associated funding is required. Until then a potential quantitative indicator could be the no. of times emergency response plans are activated. Quantitative indicators need to encompass a human element and what is protected (e.g. number of homes, people protected by a measure). Data arising from new community hubs could be used to build indicators year to year (e.g. how many hubs established, how many people using them?) Outcome indicators will be difficult and need to measure success and resilience. Insurance returns or reductions in claims could be a good starting point. Training will be needed for LAs if new quantitative indicators are introduced.	detailed indicators in the scorecard at this stage is not a good use of resources.
Feedback on proposed categories (Figure 1)	All LAs felt the proposed framework was clear and had the ability to cover the full range of adaptation actions being undertaken. The following adjustments were recommended: 1) 4 LAs indicated an additional 'delivering adaptation' category for major emergency planning / community resilience. This would	Proposed framework is a good approach but the category definitions will need to be very clear to ensure they are consistently interpreted. Assessing community resilience / emergency preparedness will be important as a measure of progress at LA level so this needs to be incorporated.	All sectors felt the proposed framework was clear and had the ability to cover the full range of adaptation actions being undertaken. The following adjustments were recommended: 1) 2 sectors indicated that training, awareness and stakeholder engagement will need to be very

	cover community resilience hubs which are central to LA adaptation actions. 2) 3 LAs indicated that the 'green' and 'grey' categories should be combined as many implemented measures are a combination of the two. 3) 2 LAs indicated the funding category is potentially very complicated and would require very clear definition / parameters for reporting 4) 3* LAs indicated potential overlap between stakeholder engagement / awareness / training and suggested greater clarity. 5) 1 LA indicated that governance instruments and good governance is a key enabler for climate action and should be explicitly included in the categories	There is still a very 'grey' approach to delivering adaptation in many LA areas with small scale studies to test nature-based solutions so important that the scorecard assesses 'green'. 'Green' should be called nature-based solutions. Huge reliance on consultants for delivery so scorecard needs to assess resources. Mapping risk is essential so needs to be assessed somewhere Procurement is key to adaptation so ensure this word is included in the guidance document for one of the categories.	clearly defined to avoid overlaps in reporting. 2) 1 sector suggested the training category should expand to consider identification of the training need, developing training to meet this need and delivery. 3) 2 sectors suggested 'research' could be more clearly defined and relabeled to research and assessment' to make clear this includes risk assessments. 4) 1 sector indicated that governance instruments and good governance is a key enabler for climate action and should be explicitly included in the categories 5) 1 sector suggested development of indicators in included as a 'building adaptive capacity' category 1 sector indicated that 'funding and resources' needs to be explicitly include staffing
Qualitative Assessment	All LAs indicated that a qualitative assessment would be required for all categories. Areas where this was felt to be most useful were: - For actions that are both mitigation and adaptation - Actions not included in the LACAP	Qualitative assessment is necessary to understand issues around social acceptability.	All sectors and DCEE / NAF agreed that a qualitative assessment would be required for all categories. Areas where this was felt to be most useful were: - To measure resilience and describe outcomes. 3 sectors suggested this could be achieved with a series of steps against

	Incorporation of case studies (which are captured for the implementation reports each year)		which progress can be measured (e.g. quantifying, mapping and prioritising risk, planning the actions, implementation, monitoring, evaluation) - Case studies as exemplars of best practice - International collaboration on specific (health) issues - Engagements with industry / private sector - To allow for nuance and subtly
Barriers & Dependencies	All 9 LAs agreed that the scorecard needs to adequately account for barriers and dependencies. In particular: - 6 LAs indicated that poor engagement between sectors and semi-state agencies with LAs is a key barrier to action - 7 LAs indicated that lack of Government funding is a key barrier to action 2 LAs suggested the scorecard should include a question around what actions LAs are not able to implement in any given year due to external barriers / how many actions are dependent on cross-sectoral or multilevel collaboration.	Scorecard does this really well currently. Identifying barriers and dependencies is necessary, particularly for each CARO region if aggregating LA responses noting that CAROs were established based on risk. LAs need stronger leadership from sectors to know they are addressing sectoral priorities (e.g. prioritisation of risks) as well as cross-sectoral issues. A question should be added to the sectoral questionnaire on engagement with local government in relation to (cross-) sectoral priorities and the linkages between sectoral and local risks.	All sectors and DCEE / NAF confirmed that the scorecard needs to highlight barriers and dependencies. Key points raised were: - 7 sectors highlighted significant challenges in obtaining updates or data from other sectors (incl. private sector), agencies or LAs. This also often raises data security and sharing issues. - 4 sectors and DCEE / NAF indicated that liaison with LAs and capturing LA activity in sectoral assessments is challenging, Other general points made: - Sectors should be notified if they emerge as a barrier to local authority progress to allow an

			opportunity to respond prior to publication. - 'Challenges experienced' could be a more positive framing than barriers. - Ability to populate indicators with data is a barrier in itself.
Other general points raised	There is a disconnect between 31 LAs on the ground and CCMA/CARO engaging in scorecard so it provides a very small snapshot of LA activity and does not show the depth of work or differences across LAs (some with substantially more resources than others).	Ranking LAs is difficult due to the different sizes and scales. The scorecard should not pit LAs against one another in a competition as they are not comparable. The scorecard needs to serve a purpose for LAs - to bring the necessary finance to service adaptation implementation. The scorecard could do a better job of helping to communicate to the public what the LA sector is doing in relation to climate adaptation. If the new scorecard is to be issued to 31 LAs then a training event is required to ensure categories and purpose are fully understood	The updated scorecard needs to be flexible enough to accommodate changes to the actions in the SAPs which will be subject to ongoing implementation reviews. Suggestion to add the question: have any actions changed, been added or removed since the publication of the SAP? The scorecard needs to assess and evaluate cross-sectoral activity and the NCCRA provides a good basis to inform this. A clear definition of adaptation vs. mitigation should be included on the scorecard questionnaire, and combined actions should have equal value.

Stakeholder feedback: CCAC Adaptation Committee and Secretariat

Purpose of the Adaptation Scorecard	7 interviewees indicated the scorecard provides a means of measuring local, sectoral and national progress in relation to climate adaptation (NAF, SAPs and LACAPs) and demonstrating improvements over time. 4 interviewees indicated it informs CCAC recommendations and help drive policy direction for climate adaptation. 2 interviewees indicated the scorecard acts as a 'stick' for Government departments / sectors each year and helps keep a focus on climate adaptation. 3 interviewees indicated the scorecard acts as a 'carrot' for sectors to progress adaptation action, providing a learning as well as reporting element.
Proposal to move to an online model	3 interviewees indicated that an online dashboard would be useful. Particularly if it allows data to be to be uploaded continuously. One interviewee noted that this would need to align with existing reporting to achieve buy-in. 4 interviewees indicated that an online model would be beneficial but needs to consider the nature of the questions, options to constrain answers and compare responses across years, categories and sectors (noting indicators would help with the latter). 1 interviewee indicated there is no benefit to moving online from an evaluator's perspective
Feedback on the evaluation process from a user perspective	3 interviewees expressed concern that the evaluation process is subjective. 2 interviewees indicated that a better granularity of data is needed to evaluate local authorities but trying to report for each LA will be challenging / too resource intensive 2 interviewees indicated that reporting is currently text heavy and needs to be streamlined and more transparent. 2 interviewees confirmed the evaluation takes time but this is a necessary part of the process.

	3 interviewees indicated that interviews with sectors would be useful as part of the evaluation, following sectoral submissions. This would provide an opportunity for questions to be answered, to build relationships and offer encouragement to sectors, but resource issues need to be recognised. 2 interviewees indicated that interviews are not helpful in the evaluation process. These introduce issues of consistency, transparency as well as resource issues. 3 interviewees indicated that sufficient / increased staffing and resources are needed for this process
Feedback on proposed categories (Figure 1)	3 interviewees felt the proposed categories are useful and will help structure information being submitted, allowing for comparability over time. 3 interviewees stated the importance that categories are very clearly defined (e.g. what is a training course, what is research, what is awareness vs. stakeholder engagement)? 2 interviewees felt that green and grey need to be distinct categories. One interviewee highlighted potential overlap between stakeholder engagement, awareness and training and suggested these should be revisited and better defined. Suggestion to combine 'stakeholder engagement with governance' and 'awareness with training' Funding and resources needs to include human resources / capacity within an organization. Green and grey categories need to consider scale i.e. physical scale and financial scale. 2 interviewees indicated that governance and emergency management are not well covered (noting for example it is useful to see how many governance meetings take place) The categories should be given equal weighting to avoid over complicating the scorecard 3 interviewees indicated support for weighted assessment (e.g. 'delivering adaptation' actions are more important than building adaptive capacity' actions)

Feedback on proposed quantitative indicators (Figure 8)	5 interviewees supported a move towards quantitative indicators noting these could help to focus responses. The proposed indicators were viewed as a starting point. 4 interviewees indicated the proposed indicators are not particularly useful as they do not measure outcomes. They are quasi quantitative socio-economic indicators. Risk of being 'fashionable' or leading to 'overfocus' or 'perverse incentives' 6 interviewees indicated that quantitative indicators must be accompanied by qualitative data. Reasons are to avoid misinterpretation, and to account for cross-sectoral activity, to understand barriers and challenges and to assess the effectiveness of actions. 4 interviewees indicated that it is not for CCAC to define or maintain indicators and that sectors should developed their own high level outcome indicators. 2 interviewees indicated it may be better to focus on case studies (which address priority risks) and which can also be shared for best practice Indicators on governance and cross-sectoral collaborations missing
How can the scorecard measure progress towards adaptation?	4 interviewees emphasised the importance of cross-sectoral and multi-level engagement in addressing cascading and complex risks. It was noted that the real measure of success is integrated and a reflection of how the entire system responds (e.g. power, water, transport etc. in an extreme event). It is not possible to get a satisfactory measure sector by sector. 3 interviewees indicated a preference to assess overall progress towards resilience. Suggestions include assessing and quantifying risks, geospatially mapping risks, planning and implementing actions and assessing outcomes. - 1 interviewee suggested that the scorecard could model the ideal policy and trajectory for each sector to achieve maximum resilience and evaluate sector performance using progress quotients. - 1 interviewee indicated that sectors should define their own end point. Consider resilience metrics but would need a damage / impact register to be established with meteorological co-variation (e.g. number of storms, windspeeds, precipitation rate etc.) 5 interviewees indicated that a baseline level of adaptation 'readiness' is needed for each sector with one interviewee suggesting this could be assessed in 2026.

	The scorecard needs to consider social justice and acceptability, i.e. are we protecting the most vulnerable people and assets better?
Impact of the scorecard	2 interviewees suggested the scorecard could provide information to DPENDR (or those providing funding) to support decision making around funding allocations for adaptation? 4 interviewees indicated the scorecard has little impact and is purely advisory with no legal obligation for participants to respond. This leads to differing levels of effort across sectors. 1 interviewee indicated the scorecard does not have the same press attention or impact as the annual review. There could be a case to combine with the annual review if the recommendations in the resilience chapter are heavily informed by the scorecard.
Key Challenges	Funding is a key challenge to adaptation progress so qualitative descriptors are necessary to highlight this. The scorecard is very time consuming but political considerations prevent it from communicating what it needs to. This is an impediment to achieving action. 2 interviewees highlighted the important role of the scorecard in calling out barriers to action, with one noting that all sectors experience challenges and how these are handled is important in terms of adaptation progress.
Other general points raised	<u>Comparison / ranking</u> 4 interviewees were not sure of the value of comparative / competitive approach currently used, indicating that comparison within sectors is the most important issue. 4 interviewees felt that comparisons across sectors are important and a key strength of the scorecard. <u>Tailored sectoral questionnaires</u> 6 interviewees indicated that different questionnaires for different sectors would be beneficial to better assess sector-specific issues. 3 interviewees expressed concern that different questionnaires across sectors would dilute consistency between sectoral and local and impact comparability.

	Annual vs. cumulative assessment 6 interviewees indicated that the scorecard should take place annually as it is important to demonstrate annual progress and so as not to devalue adaptation (relative to mitigation which is reported annually). These individuals also indicated a potential benefit to an additional periodic longer-term cumulative assessment. 3 interviewees indicated that an assessment over a longer 3-5 year period (rather than annually) could be beneficial. Reasons include better assessment of longer-term adaptation progress including effectiveness of measures, and for managing resources. Sub-sectoral and LA assessment 2 interviewees suggested it is not particularly useful for the scorecard to consider sub-sectors as adaptation should take an overarching and integrated view. 2 interviewees favoured sub-sectoral assessment for Agriculture, Forestry and Seafood in particular, as well as possibly Transport. 2 interviewees indicated there is a need to identify LAs that need help with adaptation so an assessment for each of 31 Local Authorities would be ideal. One of these interviewees suggested that aggregation at CARO level would be a good start but acknowledging that this risks not recognising excellence and hiding LAs that do not have capability or funding to protect their vulnerable. 2 interviewees indicated that there are insufficient resources for assessment for each of 31 LAs, even if this is desirable. Aggregation at CARO level would be more feasible. 2 interviewees suggested that sectors should be specifically asked about engagement with LAs in the questionnaire to encourage better collaboration and ensure that LA actions are feeding into sectoral responses.

Appendix 2: Semi-structured interview guide

Stakeholder interview guide (November 2025)

Introduction and context

Following the publication of the revised National Adaptation Framework (NAF) and Local Authority Climate Action Plans (LACAPs) in 2024, and with the imminent publication of updated Sectoral Adaptation Plans (SAPs) in 2025, the Climate Change Advisory Council is conducting a review of the Adaptation Scorecard to ensure it aligns with these new policy frameworks. This review also aims to improve the effectiveness of the scorecard as a tool to monitor progress towards climate resilience, as well as making the questionnaires more user-friendly, concise, quantitative and avoiding overlaps between categories of assessment. A key consideration will be improving the assessment of Local Government performance and enforcing the link between local, sectoral and national climate adaptation action, including locally led sector-specific measures (e.g. locally led measures to build resilience on the local and regional road network are crucial for building resilience in the Transport sector).

Following a detailed review of climate adaptation actions across 31 LACAPs, 10 draft SAPs and the NAF, a new categorisation framework for the scorecard questionnaires is proposed (see Figure 1). 976 climate adaptation actions from the NAF, draft SAPs and LACAPs have been mapped to this framework.

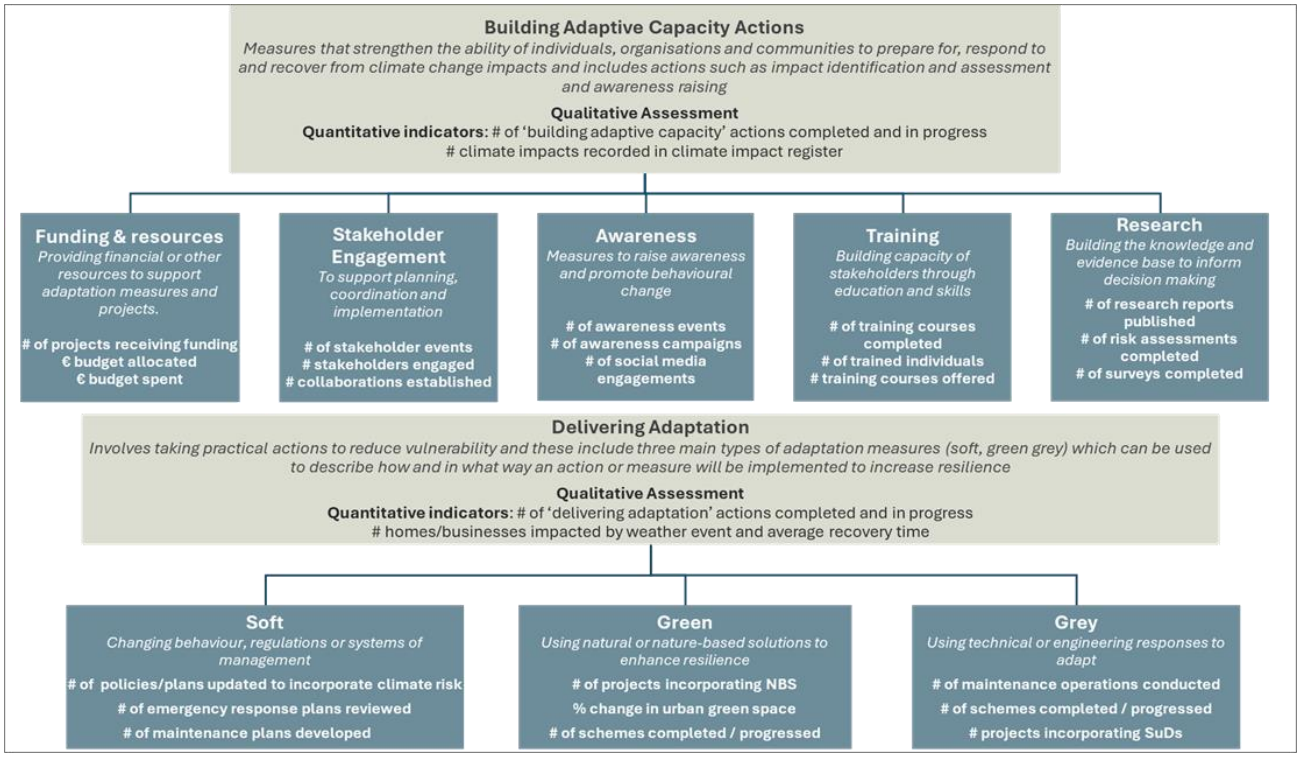


Figure 1: Proposed Adaptation Scorecard categories to align with the revised policy framework. Proposed quantitative evaluation metrics are based on commonly occurring KPIs across the LACAPs and SAPs for the relevant category of action.

Key points of consideration for stakeholder engagement (sectors and LAs)

1. **Experience with the current scorecard process**
    a. What aspects of the current questionnaire are easy/difficult to complete?
    b. Which questions are most challenging to answer and why?
    c. Do you find the recommendations and feedback through the scorecard useful and / or fair?
    d. Do you use the scorecard guidance document when completing your questionnaire, and if so, do you find it helpful? How could it be improved?
    e. What could make the process more efficient or helpful? E.g. would an interview with the secretariat be beneficial and if so, would this be more helpful for guidance prior to completing the questionnaire, or to flesh out details after completing the questionnaire?
    f. Would an online questionnaire be helpful and if so, what format would be preferable (e.g. considering IT security restrictions)?

2. **Data capture and availability**
    a. How much liaison is required with colleagues to capture the full range of adaptation actions that are being undertaken across the sector/LA, and how is this managed?
    b. Is there an overlap with other reporting obligations? If so, what are these obligations and what is their timeline?
    c. Are the proposed quantitative indicators/metrics aligned with your ongoing data capture? Is there room for improvement or any significant issues we should be aware of?
    d. How frequently is such data captured in your sector/LA?
    e. Are the proposed metrics a fair and comparative indication of adaptation action progress? If not, what improvements can you suggest?
    f. What high level outcome indicators are you proposing to use in order to assess the effectiveness of adaptation progress?
    g. How can we improve the scorecard assessment at sub-sectoral or local authority level (e.g. is it feasible to issue separate questionnaires for sub-sectors and local authorities)? Include consideration of how to enforce the link between local, sectoral and national action.
    h. Where actions are being led by semi-state agencies (e.g. ESBN, EirGrid, UÉ, GNI) how is progress captured?

3. **Evaluation of proposed categorisation**
    a. Does the proposed categorisation (Figure 1) reflect how you plan, deliver and monitor adaptation?
    b. Do you agree with the categorisation of your actions (Appendix 1)? If not, why not?
    c. Are the categories clearly defined? Do you envisage any future actions that would not fit into this categorisation framework?
    d. What internal reporting would need to change to align with this new framework? How can the impacts of this be minimised?

4. **Qualitative assessment perspective**

a. A key objective of this review is to make the questionnaires and data capture more concise. Which aspects of adaptation action are better captured qualitatively?
b. What evidence can you feasibly provide to support qualitative scoring?

5. **Barriers and dependencies**
    a. Does the current scorecard adequately account for dependencies and external barriers to progress in your view?
    b. Do you have challenges relating to funding of adaptation actions? If so, can you explain these?
    c. How can this issue be improved or accounted for within the updated categorisation framework?

Key points of consideration for stakeholder engagement (CCAC)

1. **Understanding the purpose and use of the adaptation scorecard.**
    a. How would you describe the main purpose of the scorecard within Ireland's adaptation governance framework?
    b. What are the main strengths and weaknesses of the scorecard as a tool for assessing progress on climate adaptation?
2. **User Experience and Evaluation Process (for previous evaluators)**
    a. Are there aspects of the evaluation process that are administratively burdensome and how could these be streamlined?
    b. Would an online questionnaire be helpful and if so, what format would be preferable?
    c. Would a semi-structured follow-on interview with questionnaire respondents be helpful? Are there resource considerations? How would insights from the interview be incorporated into the sectoral evaluation and are there issues of equity or transparency to consider?
3. **Measuring progress towards adaptation**
    a. To what extent do you think the proposed quantitative indicators (Figure 1) capture progress on effective adaptation?
    b. Are some categories of action more important than others and if so, how should the scorecard account for this? (e.g. weighted assessment?)
    c. What high-level outcome indicators would best capture what successful adaptation looks like across different sectors and scales in Ireland? (e.g. decreases in service disruptions, reduction in number impacted by flooding and coastal erosion, reduction in climate related economic losses or insurance claims)
    d. Do you have a view on how we assess the baseline level of 'adaptation readiness' or 'resilience maturity' for each sector – a level that progress moving forwards can be measured against?
    e. Are there any advantages or potential drawbacks to customising the questionnaire for different sectors?
    f. Do you have any thoughts on annual versus cumulative assessments? Is it necessary for the scorecard assessment to be conducted annually?

4. **Impact of the scorecard**
    a. How do the results of the scorecard feed into decision making or policy advice within CCAC and Government departments? Could this be improved?
    b. Do you think the current process encourages learning and improvement among sectors/LAs? If not do you have any suggestions for how this could be improved?
5. **Key challenges**
    a. How do you suggest that external dependencies are accounted for in the scorecard (i.e. inability to take action in one sector/LA as a result of delayed action in another)? To what degree should this focus on the source of delay vs. the impacted sector / LA? (e.g. DPENDR not assessed under the scorecard but are key to unlocking the budgets)
    b. Do you have any suggestions for how the scorecard can be improved to assess progress at sub-sectoral or local authority level e.g. being mindful of resources is it feasible / useful to issue separate questionnaires for sub-sectors and local authorities?
    c. Acknowledging existing resource constraints, do you have a view on the most resource-efficient way to move forwards with the scorecard? (e.g. outsourcing, sharing the load across the secretariat/committee etc.)? Would moving to an online model help? If so, what format?
    d. How best can the scorecard enforce the link between local, sectoral and national action? How important is this?

6. **General feedback on proposed categories in Figure 1**