Adaptation Action Assessment Working Group Report

October 2026

Executive Summary

This report provides a summary of the main activities and outputs of the working group for the Adaptation Action Assessment. The working group was convened to consider the recommendations from the 2026 Review of Ireland's Adaptation Scorecard and to propose the final categories, questionnaires and assessment approach that will be used in the Adaptation Action Assessment for the period 2026-2030 for approval by the Adaptation Committee and Climate Change Advisory Council.

The working group was chaired by Climate Change Advisory Council (CCAC) and Adaptation Committee member Jillian Mahon and comprised of five members of the Adaptation Committee and one representative each from the Department of Climate, Energy and the Environment (DCEE), Office of Public Works (OPW) and the Climate Action Regional Offices (CAROs). The Resilience Team from the Climate Change Advisory Council Secretariat and consultant from Ecodiversity provided administrative and technical support to the working group.

The working group met on four occasions during the period of April-July to consider the most relevant issues. The main outputs from the working group are:

- Agreed objective and categories for the Adaptation Action Assessment for the period 2026-2030.
- Agreed scope of the Adaptation Action Assessment, which will focus on the lead departments for Sectoral Adaptation Plans and Local Authorities. A separate questionnaire will be issued to the Department of Climate, Energy and the Environment for the implementation of the National Adaptation Framework and to other priority Departments that do not have Sectoral Adaptation Plans for evidence gathering purposes[1].
- Agreed questionnaire for lead departments for Sectoral Adaptation Plans and Local Authorities and guidance notes to assist the respondents and evaluators of the questionnaire responses.

The Secretariat updated lead departments and local authorities on the planned new approach for the Adaptation Action Assessment at the meeting of the National Adaptation Steering Committee on 8th September. The questionnaires and guidance notes were shared with the lead departments and Climate Action Regional Offices on 5th October 2026. It is planned that the responses will be returned to the Secretariat for evaluation at the end of January 2027. It is planned to conduct the evaluation of responses from February to March and publish the final report by the end of May 2027.

[1] The priority departments identified were the Department of Enterprise, Tourism and Employment, Department of Finance and the Department of Public Expenditure, Infrastructure, Public Service Reform and Digitalisation for adaptation finance-related issues as well as the Department of Housing, Local Government and Heritage for built environment and planning-related issues

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1. Introduction

This report provides an overview of the main outputs of the Adaptation Action Assessment (AAA) Working Group, which was established in April 2026. The main purpose of the AAA Working Group was to:

- Consider and scrutinise the recommendations outlined in the 2026 review of Ireland's Adaptation Scorecard.
- Determine the best approach for implementing the recommendations and ensuring their incorporation in the content and procedures for the revised assessment for the period 2026-2030.
- Propose the final categories, questionnaires and assessment approach that will be used in the Adaptation Action Assessment for the period 2026-2030 for approval by the Adaptation Committee and Climate Change Advisory Council.

The working group was chaired by Jillian Mahon and was comprised of the following Adaptation Committee members – Robert Devoy, Ina Kelly, Keith Lambkin, Sean McKeown, and Darragh O' Neill. Gráinne Uí Thuama represented the DCEE in the working group, Mark Adamson represented OPW and Carmel Kilcoyne represented the CAROs. Stephen Flood and Bryn Canniffe from the Secretariat Resilience team and Lisa Johnson, a research consultant from Ecodiversity, also participated in the working group.

2. Meetings of the Working Group

The working group met on four occasions.

The first meeting held on 24th April approved the terms of reference for the AAA Working Group[2]. The meeting considered the objectives, scope and categories for the Adaptation Action Assessment. It also involved an initial discussion of the online dashboard element of the assessment and the implications of this for the questionnaires and ensuring the questions collect the necessary data to populate the dashboard that may be designed to house the output in the future.

The second meeting was held on 4th June and finalised the objectives and categories for the adaptation action assessment. The meeting considered an initial draft of the questionnaire, response template and draft evaluation criteria. The meeting also discussed how best to make the questionnaire useful for local authorities and more reflective of their activities.

The third meeting was held on 29th June. It focused on the amendments that were made to the questionnaire and the draft guidance notes that were developed for sectors and local authority

[2] Terms of reference are included as Appendix 1.

respondents. It also considered in detail the assessment methodology, including ranking, weighting and how best the assessment could cover both annual and cumulative progress.

The final meeting was held on 20th July. The final draft of the Adaptation Action Assessment questionnaire and guidance notes were presented at this meeting and approved subject to any red line comments by email and to the testing of the questionnaire and response framework by Office of Public Works and the CAROs. The final meeting also provided guidance on the following issues:

- **Final outputs from the working group for approval of the Adaptation Committee and Council** – it was noted that a short report of working group with final questionnaires and guidance notes would be shared at the Adaptation Committee meeting in August for approval and that the Working Group minutes and Scorecard Review Report would be published on Council website after the September meeting of the Council.
- **Testing the questionnaire, response framework and guidance notes** – it was agreed that OPW and the CAROs would test the functionality and usability of the questionnaire and provide any feedback to the Secretariat.
- **Questionnaire for DCEE National Adaptation Framework and other Departments without SAPs –** the working group agreed that the Secretariat should (i) issue a separate questionnaire to DCEE on the implementation of the National Adaptation Framework (NAF) and (ii) issue a simplified / shortened version of the questionnaire to priority departments that do not have Sectoral Adaptation Plans (SAPs) for evidence gathering purposes. The priority departments identified were the Department of Enterprise, Tourism and Employment (DETE), Department of Finance (DOF) and the Department of Public Expenditure, Infrastructure, Public Service Reform and Digitalisation (DPER) for adaptation finance-related issues as well as the Department of Housing, Local Government and Heritage (DHLGH) for built environment and planning-related issues.
- **Proposed timelines for the 2027 assessment –** it was agreed that the Secretariat would inform the sector and local authority representatives of the new approach to the assessment and timelines at the National Adaptation Steering Committee meeting of 8th September and that the questionnaires and guidance documents would be shared by the end of September. It is planned for the sectors and local authorities to submit their responses by end of January and to conduct the assessment and complete the final report by end of April 2027.
- **Online dashboard element of the assessment –** the working group considers it essential that this assessment should ultimately be housed on an online dashboard. The Secretariat is engaging with the EPA on the feasibility of creating an online dashboard for submissions of the questionnaire responses and to show the assessment results in an online dashboard format.

The minutes from the working group meetings will be published on the Council website along with the 2026 Review of the Adaptation Scorecard Report.

3. Main Outputs from the Working Group

This section summarises the main outputs from the working group.

3.1 Objective and Categories of the Adaptation Action Assessment

The working group agreed that the main objective of the Adaptation Action Assessment is to assess annual and cumulative progress at the sectoral and local government level in the implementation of adaptation actions for improved climate resilience. It is intended for the Adaptation Action Assessment to serve as a tool for learning and exchange for Government departments and local authorities on good practices to promote climate change adaptation and resilience.

The categories agreed for the Adaptation Action Assessment comprise of two categories – Category A on Building Adaptive Capacity with six sub-categories and Category B on Delivering Adaptation with three sub-categories. The categories and sub-categories are displayed in figure 1.

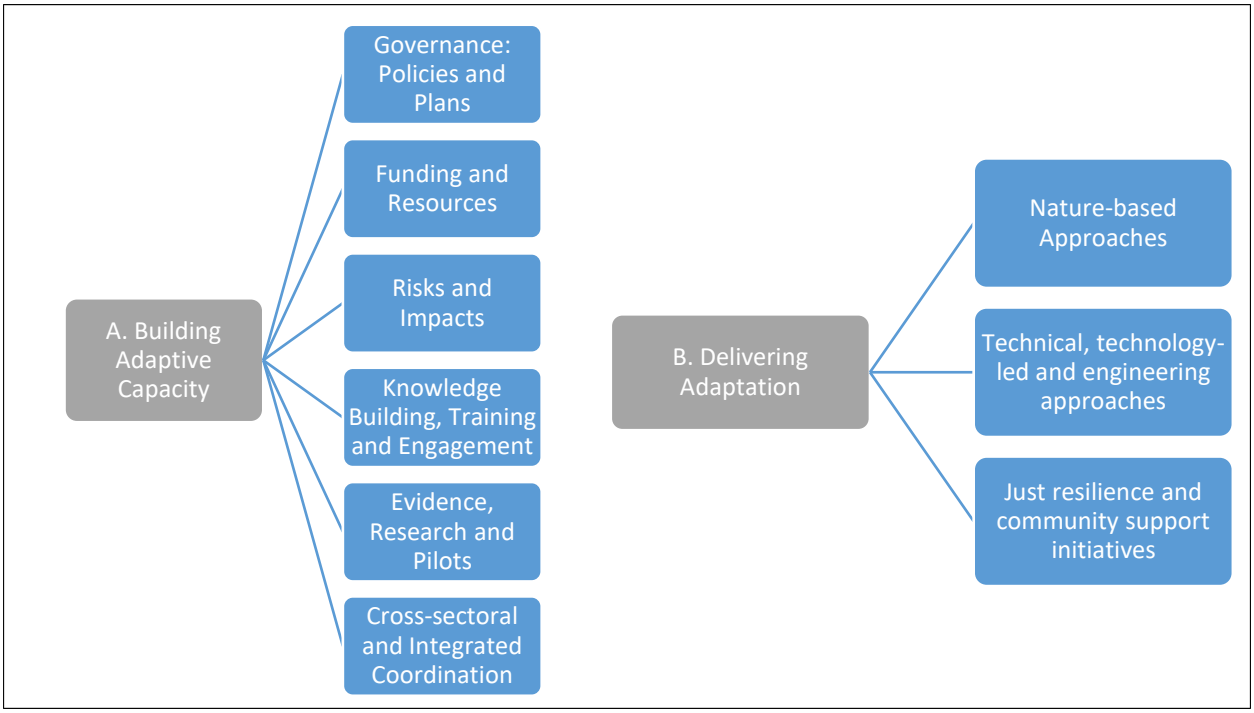


Figure 1: Agreed categories and sub-categories for the Adaptation Action Assessment.

3.2 Adaptation Action Assessment Questionnaire and Guidance Notes

The final Adaptation Action Assessment Questionnaire and Guidance Notes are included in Appendix 2[3].

3.3 Other Matters

[3] Separate guidance notes were developed for sector lead Departments and Local Authorities.

Questionnaire for DCEE with regard to the National Adaptation Framework – the AAA working group agreed that this questionnaire would be designed by the Secretariat in consultation with the relevant officials from DCEE as their role in coordinating the implementation of the NAF is different to the SAPs and Local Authority Climate Action Plans. A draft questionnaire has been developed with focus around the role of DCEE in supporting the work of the Adaptation Taskforce, its national dialogue, awareness raising role for adaptation, and its support to local authorities for climate action. The draft is to be shared with DCEE officials before finalisation.

Questionnaire for other Departments with no Sectoral Adaptation Plans – the Secretariat will draft and issue a simplified / shortened version of the questionnaire to 4 priority departments (DETE, DoF and DPER, DHLGH (built environment and planning)) that do not have SAPs but have key cross-cutting roles relating to adaptation. The main aim of this questionnaire will be to gather evidence on their activities relating to adaptation and these departments will not be formally included in the assessment.

Online Dashboard – the Secretariat has submitted a business case to the EPA for IT support in the development of an online dashboard for submissions of the questionnaire responses and to show the assessment results in an online dashboard format. This is a work in progress and it is not clear if this will be operational for the 2027 Adaptation Action Assessment. Considerable work has been done on the questionnaire response template so that it can be migrated to an online system once this is developed.

Evaluation of responses – Volunteers from the Adaptation Committee have previously assisted the Secretariat with the evaluation of responses. The volunteers were Julie Clarke, Robert Devoy, Conor Murphy and Roger Street. It is proposed to discuss and agree on the volunteers for the evaluation of the Adaptation Action Assessment responses in the November Adaptation Committee meeting. The revised evaluation criteria will also be shared and discussed with the volunteers in advance of the evaluations.

4. Next Steps

Table one provides a summary of the main follow-up actions to be undertaken.

Table 1: Main follow up actions for the Adaptation Action Assessment.

Action	Responsible	Timeline
1. Publish the review of the Adaptation Scorecard on the Council website	Secretariat	October (After Council meeting of 24th September)
2. Publish the minutes of the Adaptation Action Assessment Working Group meetings on the Council website	Secretariat	October (After Council meeting of 24th September)
3. Present new approach to the questionnaire and guidance notes to the National Adaptation Steering Committee	Secretariat	8th September NASC meeting (completed)

Action	Responsible	Timeline
4. Finalise questionnaire for DCEE NAF and for priority Departments without SAPs	Secretariat	End October
5. Circulate questionnaires to Departments and CAROs	Secretariat	5th October
6. Source volunteers from the Adaptation Committee to assist with the evaluations	Adaptation Committee	November
7. Discuss evaluation criteria with Adaptation Committee volunteers	Secretariat / Adaptation Committee volunteers	December
8. Receive questionnaire responses	Secretariat	End of January 2027
9. Conduct evaluations	Secretariat / Adaptation Committee volunteers	February – March 2027
10. Submit evaluation report to Committee and Council for approval	Secretariat	April 2027
11. Publish adaptation action assessment report	Secretariat	May 2027

Appendix 1: Terms of Reference for the Adaptation Action Assessment

1. Main Purpose

The main purpose of this working group is to:

- Consider and scrutinise the recommendations outlined in the 2026 review of Ireland's Adaptation Action Assessment.
- Determine the best approach for implementing the recommendations and ensuring their incorporation in the content and procedures for the revised assessment for the period 2026-2030.
- Propose the final categories, questionnaires and assessment approach that will be used in the Adaptation Action Assessment for the period 2026-2030 for approval by the Adaptation Committee and Climate Change Advisory Council.

2. Background and Context

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 is based on three questionnaires that are 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. There have been significant policy developments since the adaptation scorecard was developed – including a new National Adaptation Framework in 2024, adoption of Local Authority Climate Action Plans in 2024 and 10 new Sectoral Adaptation Plans in 2025.

In this context, the Climate Change Advisory Council commissioned Ecodiversity to conduct an independent review the effectiveness of the adaptation scorecard and to ensure 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. The review resulted in comprehensive recommendations and proposals for the scorecard that require further consideration before determining the content, procedures and process that will be followed for implementation of the revised scorecard, hereafter the Adaptation Action Assessment during the period 2026-2030.

3. Specific Objectives

The specific objectives of this working group are to deliberate and agree on the following aspects of the assessment:

- Its categories, including their definitions, and final questions that will be included in each of the questionnaires.

- Qualitative evaluation criteria for the assessment, including issues of weighting, numerical scale for semi-quantitative assessment, ranking and how best to provide both an annual and cumulative assessment of progress.
- Options for the design of an effective and user-friendly online submission portal, including the design of questionnaire fields and word limits etc., storing structure, online dashboard and consideration of security issues.

4. Membership of the Working Group

The working group will comprise of the following:

- At least two members of the Adaptation Committee, of whom one shall chair the sub-group.
- Members of the resilience team from the secretariat of the Climate Change Advisory Council (who will also provide secretarial services to the sub-group)
- Principal Officer for Climate Adaptation from the Department of Climate, Energy and the Environment
- Focal point from one Government Department responsible for climate change adaptation and the adaptation scorecard
- Climate Action Regional Officer
- Ecodiversity Consultant

Organisation	**Person**
Adaptation Committee	• Jillian Mahon (Chairperson) • Sean Mckeown • Ina Kelly • Robert Devoy • Keith Lambkin • Darragh O' Neill
Secretariat of the Climate Change Advisory Council	• Stephen Flood • Bryn Canniffe
Department of Climate, Energy and the Environment	• Gráinne Uí Thuama
Government department / agency	• Mark Adamson (Office of Public Works)[4]
Climate Action Regional Office	• Carmel Kilcoyne
Ecodiversity	• Lisa Johnson

5. Meetings, Timelines and Commitments

It is envisaged that this sub-group will be operational for the period April – September 2026. It is planned for it to meet around monthly for 1-2 hours on 4-5 occasions to consider the key

[4] Mark Adamson sits on the Adaptation Committee and is also has responsibility within the OPW for the Flood Risk Management Sectoral Adaptation Plan in his role that covers risk management and climate adaptation.

outstanding issues. Minutes of the previous meeting and an agenda for the forthcoming meeting will be shared at least one week in advance of each meeting. All meeting agendas and minutes will be published at the time of the launch of the renewed Adaptation Action Assessment along with the report carried out by Ecodiversity.

An indicative timeline of the meetings and discussion items for each meeting is:

- **April** meeting to consider the objectives and categories for the revised adaptation action assessment. This meeting will also consider the online dashboard element as this will have implications for the questionnaires and ensuring the questions collect the necessary data to populate the dashboard.
- **May** meeting to consider the final questions that will be included in each of the questionnaires (including how to make it most seamless for local authorities and more reflective of their activities).
- **June** meeting to consider the issue of the assessment methodology, including ranking, weighting and coverage of annual versus cumulative progress
- **July** meeting to consider the most appropriate option for an online submission portal and dashboard for the assessment, bearing in mind respondent and CCAC needs, resources and requirements.
- **August** meeting (if needed) to consider any other issues and to sign off the final outputs of the working group (eg. Final questionnaires and categories, assessment criteria and methodology and proposed online submission portal).
- **September** (final outputs tabled to the Adaptation Committee for approval in 10th September meeting and Council for final approval in 24th September meeting)

It is expected that the working group will be concluded by end of September 2026.

Appendix 2: Final Adaptation Action Assessment Questionnaire

Important note: Please refer to the relevant guidance notes before completing this questionnaire. The guidance notes provide further detail on the scope of each section and question, definitions for key terms used throughout the questionnaire, the criteria that will be used to evaluate responses, and where relevant, examples drawn from actions within the Local Authority Climate Action Plans (LACAPs) and Sectoral Adaptation Plans (SAPs). Please use the fields provided for each question to submit your response.

Section A: Building Adaptive Capacity

1.1. Governance: Policies and Plans

A1: What governance instruments* are in place or in development within your sector or local authority and when were these last reviewed? Please include instruments that support or give effect to adaptation action, including initiatives that mainstream adaptation into day-to-day work

**Governance instruments are formal, documented policies, plans, strategies, frameworks, guidelines, procedures or regulations that guide or require climate adaptation action and decision-making. They include instruments developed specifically for adaptation, instruments where adaptation has been mainstreamed, and cross-sectoral instruments that you are responsible for maintaining, even where delivery involves other organisations or sectors. See guidance notes for possible examples drawn from LACAP and SAP actions.*

Complete the table below separately for each governance instrument you are reporting

Name of Governance Instrument *(Max 50 words)*	Type here
Sector or LA	Select from list
Subsector (where relevant)	Select from list
Date (month) instrument adopted/published	Click to enter a date *If exact date not known please select the 1st day of the appropriate month*
Timeframe of instrument	Type here
Date and outcome of last review *(Max 100 words)*	Type here
How does this instrument support climate adaptation and resilience within your local authority or sector? *(Max 100 words)*	Type here
Supporting evidence (e.g. links to online documents) *(Max 50 words)*	Type here

Click on the table, then click '+' to add another record

1.2. Funding and Resources

A2: How many adaptation actions are included in your LACAP or SAP (including additional actions approved following publication)?

Please refer to guidance notes in respect of combined mitigation and adaptation actions in LACAPs.

Click here to input number of actions

A3: How many of these actions have been delayed or are not being implemented within the planned timeframe due to resourcing constraints, including financial and/or human resources?

Click here to input number of actions

A4: Please provide details of adaptation actions that have been delayed by more than 12 months.

Complete the table below separately for each delayed adaptation action you are reporting

Action number (as in SAP or LACAP)	Type here
Action name *(Max 50 words)*	Type here
Sector or LA	Select from list
Subsector (where relevant)	Select from list
Timeframe for delivery (as specified in SAP or LACAP)	Q1-4/YYYY
Updated timeframe for completion	Q1-4/YYYY or 'unknown'
Please summarise any resourcing constraints and how they have affected delivery, including timing, scope or quality. *(Max 150 words)*	Type here
Please summarise any steps taken to address these constraints. *(Max 100 words)*	Type here
Supporting evidence (e.g. links to online documents) *(Max 50 words)*	Type here

Click on the table, then click '+' to add another action

A5. How would you rate the human resources (e.g. staff, contractors, expertise) available for delivery of adaptation actions during the last year?

☐	Adequate and stable
☐	Adequate but uncertain
☐	Limited funding available to support partial delivery
☐	Inadequate funding available and delivery compromised

A6. How would you rate the funding available for delivery of adaptation actions during the last financial year of reporting? Please tick all that apply.

☐	Adequate and stable
☐	Adequate but uncertain
☐	Insufficient timeframe to spend funding
☐	Limited funding available to support partial delivery
☐	Inadequate funding available and delivery compromised

A7. If available, please provide the total cost estimate for delivery of the adaptation actions in the lifetime of your LACAP / SAP?

Estimated total cost	€
Basis for estimate *(Max 100 words)*	Type here
Please tick if this information is not available and move to A8.	☐

A8. How would you rate the funding available for delivery of the adaptation actions in the lifetime of your LACAP / SAP? Please tick all that apply.

☐	Adequate and stable
☐	Adequate but uncertain
☐	Insufficient timeframe to spend funding
☐	Limited funding available to support partial delivery
☐	Inadequate funding available and delivery compromised

1.3. Risks and Impacts

A9. To what extent have climate risks relevant to your sector or organisation's remit, functions, assets and services been assessed, and how are the findings being used to inform decisions on adaptation planning and prioritisation of actions?

Sector or LA	Select from list
Subsector (where relevant)	Select from list
Priority risks identified	Select from list *Add multiple risks if applicable by clicking on the '+' symbol*
Briefly describe the climate risk assessment undertaken, including the range of climate scenarios and hazards considered and how exposure and vulnerability were assessed. *(Max 250 words)*	Type here
Briefly describe how the findings have informed adaptation planning and the prioritisation of actions *(Max 150 words)*	Type here
Supporting evidence (e.g. links to online documents) *(Max 50 words)*	Type here

A10. Are observed climate impacts and losses identified, measured, recorded and monitored, and how is this information used?

Sector or LA	Select from list
Subsector (where relevant)	Select from list
Are observed climate impacts and losses recorded?	☐ Yes ☐ No *if no proceed to question A11*
What arrangements are in place to record observed impacts and losses?	☐ Ad hoc recording of some impacts/losses ☐ Routine recording of impacts/losses for some assets and services ☐ Organisation- or sector-wide system for routine recording of impacts/losses
Please indicate the nature of information that is recorded. *(Max 200 words)*	Type here
Please indicate how and if this information is being used to inform decision-making?	Type here
Supporting evidence (e.g. links to online documents) *(Max 50 words)*	Type here

1.4. Knowledge building, training and engagement

A11. What communication, training and learning activities have been undertaken since 2021 to build awareness, understanding and capability on climate adaptation across the sector or local authority? Please include formal training, communication and awareness raising activities as well as 'on-the-job' learning.

Complete the table below separately for each activity you are reporting

Type of activity *(Max 20 words)*	Type here
Sector or LA	Select from list
Subsector (where relevant)	Select from list
Objective of activity *(Max 100 words)*	Type here
Target audience *(Max 50 words)*	Type here
Number of attendees	☐ <10 ☐ 10-20 ☐ 21-30 ☐ 31-40 ☐ 41-50 ☐ >50
Recurring or one-off	☐ Recurring ☐ One-off
Has the effectiveness of the activity been evaluated? *If no, please move to Question A12.*	☐ Yes ☐ No
If yes, please provide a brief summary of the findings of the evaluation. *(Max 50 words)*	Type here

Click on the table, then click '+' to add another activity

1.5. Evidence, Research and Pilots

A12. Please list any ongoing or recently completed (i.e. since 2021) research or pilot projects that support climate adaptation and are linked to informing adaptation planning and delivery. This includes surveillance and epidemiology projects.

Complete the table below separately for each project / evidence piece you are reporting

Sector or LA	Select from list
Subsector (where relevant)	Select from list
Project name *(Max 50 words)*	Type here
Priority risks the project aims to address	Select from list *Add multiple risks if applicable by clicking on the '+' symbol*
What knowledge gap or adaptation need is the project aiming to address *(Max 100 words)*	Type here
Stage of project	☐ Scoping/Kick-off ☐ In progress ☐ Concluded
Key findings and impact to date *(Max 250 words)*	Type here
Please list any other departments, local authorities or organisations involved, if applicable.	Type here
Supporting evidence (e.g. links to online documents) *(Max 50 words)*	Type here

Click on the table, then click '+' to add another activity

1.6. Cross-sectoral and integrated coordination

A13. Please list the formal coordination and communication mechanisms currently in place that support integrated adaptation delivery across organisations, sectors and governance levels, including major emergency planning/response structures where relevant. For each, please summarise its purpose, participating organisations, what it achieved or enabled in practice, and any known limitations, gaps or improvement needs.

Complete the table below separately for each mechanism you are reporting

Sector or LA	Select from list
Subsector (where relevant)	Select from list
Name of coordination or communication mechanism *(Max 20 words)*	Type here
Purpose/scope *(Max 100 words)*	Type here
Please list membership organisations/groups *(Max 100 words)*	Type here
Terms of reference in place?	☐ Yes ☐ No
Frequency of meetings	☐ Monthly ☐ Quarterly ☐ Twice yearly ☐ Annually ☐ Ad hoc when required ☐ Not yet established ☐ Other, please specify: If other, type here
Please briefly describe the nature of outcomes (see guidance note) *(Max 150 words)*	Type here
Please highlight any limitations, gaps or improvement needs (if relevant) *(Max 150 words)*	Type here
How engaged are senior decision-makers (e.g. Secretary General or management board) in the coordination mechanism or in supporting and facilitating its outcomes?	☐ Very engaged ☐ Moderately engaged ☐ Limited engagement ☐ Minimal engagement ☐ No engagement

Supporting evidence (e.g. links to online documents) *(Max 50 words)*	Type here

Click on the table, then click '+' to add another activity

Section B: Delivering Adaptation

B1. Have you developed any outcome indicators for your sector or local authority?

Sector or LA	Select from list
Yes	☐
No	☐
If yes, please provide details	Type here

B2. Please list the adaptation interventions that became operational since 2021, or that were progressed and supported during the reporting year (e.g. scoping, planning), 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.

Complete the table below separately for each intervention you are reporting

Sector or LA	Select from list
Subsector (where relevant)	Select from list
Type of intervention *See guidance notes for definition and examples*	☐ Nature-based approaches ☐ Technical, technology-led and engineering approaches ☐ Just resilience and community support initiatives
Your role	☐ Implementer ☐ Enabler / Coordinator
Priority risks the intervention aims to address	Select from list *Add multiple risks if applicable by clicking on the '+' symbol*
Status	☐ Scoping / planning ☐ In progress / implementation ☐ Completed

Please briefly describe the intervention and if/how maladaptation risks have been considered. *(Max 300 words)*	Type here
What is the intended resilience benefit (e.g. scale of protection, what is being protected, over what timeframe will protection apply) *(Max 300 words)*	Type here
Implementation progress and performance. Please summarise delivery milestones achieved, challenges encountered, performance monitoring arrangements, lessons learned and/or early outcome signals in terms of effectiveness of the intervention. *(Max 500 words)*	Type here
Supporting evidence (e.g. links to online documents) *(Max 50 words)*	Type here
Do you give permission for this response to be published on the CCAC website as a case study to support cross-sectoral shared learning.	☐ Yes ☐ No

Click on the table, then click '+' to add another activity

Appendix 3: Guidance Notes for Sector Lead Departments

These guidance notes should be read alongside the Adaptation Action Assessment questionnaire. They are designed to help respondents interpret each question consistently and to understand the type and level of information expected in responses. For each question, the guidance notes describe the scope of the question, the criteria that will be used to evaluate responses, and, where relevant, provide examples drawn directly from the Sectoral Adaptation Plans (SAPs)

Important general notes:

1) In your responses please only include actions that relate to climate change adaptation. This may include combined actions for adaptation and mitigation, but do not include activities that solely relate to climate mitigation.
2) Definitions for several key terms used throughout the questionnaire and guidance notes are included in the Appendix.

Section A: Building Adaptive Capacity

This section of the questionnaire includes 13 overarching questions. Together these questions assess the enabling conditions required for effective climate adaptation, including the governance, resourcing, evidence, coordination and mainstreaming arrangements needed to support delivery of adaptation actions.

The revised National Adaptation Framework indicates that delivering effective climate adaptation and achieving resilience requires a whole-of-government approach, given the cross-sectoral and transboundary nature of climate change. Responses should therefore consider not only the lead Department or unit responsible for the Sectoral Adaptation Plan, but also draw on input from relevant policy areas, agencies, public bodies, semi-state bodies, and other actors whose functions, assets, services or decisions are material to climate resilience within the sector.

1.1. Governance: Policies and plans (Question A1)

Scope
The extent to which a sector has established and embedded the policies and plans to steer the process of climate adaptation. This includes the development, approval and adoption of plans, policies, strategies, guidelines and regulatory instruments (including revisions and updates) that support climate adaptation action and decision-making. Initiatives for mainstreaming adaptation into other plans, policies, strategies, guidelines, and regulatory instruments will also be considered.

Please note this category does not include meeting or reporting mechanisms to monitor, coordinate, or implement adaptation action. This is assessed separately under Category 1.6 'Cross-sectoral and integrated coordination'

Guidance notes:
Question A1
Some relevant examples of governance instruments drawn directly from SAP actions include:

- ✓ integration of health infrastructure resilience to severe weather events into capital planning and national emergency planning process
- ✓ updated reference standard for forest practice in Ireland
- ✓ emergency guidelines for Fishery Harbour Centres for extreme weather events
- ✓ incorporation of climate adaptation into strategies developed under all National Tourism Policy Statements;
- ✓ updated Regional Tourism Development Strategies to include regional climate risks
- ✓ Gas Networks Ireland/Eirgrid Climate Adaptation Plan
- ✓ Scheme Climate Change Adaptation Plans (SCCAP) for existing Flood Relief Schemes;
- ✓ integrated urban drainage management plans;
- ✓ sectoral response guidelines to coordinate during extreme weather events
- ✓ updated licencing process for port dredging
- ✓ updated national water monitoring programme with integration of climate change considerations;
- ✓ new and enhanced consolidated legislative regime to address pressures on the physical condition of waters;
- ✓ Relevant bodies such as DHLGH, DAFM, Local Authorities and partners will deliver a River Basin Management Plan (RBMP) to better protect, restore and monitor the ecological status of water during the third cycle of the RBMP

Evaluation Criteria:

Strong:

- Strong evidence that appropriate and effective climate adaptation governance instruments are in place to require and facilitate adaptation and the achievement of resilience outcomes.
- Strong evidence that substantive reviews are routinely undertaken (i.e. consideration of updated risks, review of scope) and forward review arrangements are in place.
- There is clear evidence that instruments are consistently and effectively supporting climate resilience.

Good

- Reasonable evidence that appropriate and effective climate adaptation governance instruments are being developed or planned.
- Reasonable evidence that reviews are typically undertaken within an appropriate timeframe, with some evidence of gaps. Forward review arrangements are typically in place.
- There is some evidence that instruments are effectively supporting climate resilience.

Needs Improvement

- Limited evidence of appropriate and effective climate adaptation governance instruments being in place or planned.
- Some reviews have been undertaken but not within an appropriate timeframe and no forward review arrangements are in place.
- There is limited evidence that instruments are effectively or consistently supporting climate resilience.

Weak

- Little evidence of appropriate and effective climate adaptation governance instruments being in place or planned.
- No reviews undertaken and no forward review cycle in place.
- No evidence of instruments effectively supporting climate resilience

1.2. Funding and Resources (Questions A2-A8)

Scope

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. This includes:

- whether resourcing is appropriate to the scale and complexity of planned delivery;
- the nature and significance of any shortfalls;
- the extent to which available funding is not fully and effectively used due to budgetary time constraints;
- the extent to which climate adaptation is mainstreamed across relevant funding schemes.

Guidance notes

Questions A2 and A3:

- The responses to questions A2 and A3 will only be used to calculate the quantitative indicator under the evaluation criteria below.
- Please include the total number of actions that are reported as delayed, regardless of the length of delay.

Question A4:

- Please only list those actions which have experienced a delay of at least 12 months based on the target timeline for delivery as stipulated in the SAP. In order to standardise responses please indicate time as Quarter and Year. If stipulated in the SAP as year only, then please respond with Quarter 4 of the relevant year.

Question A7:

- If available, please provide your best estimate for delivery of all actions in your SAP then briefly describe how this estimate has been developed. For example, it may be based on action-level costing, budget allocations, business cases and procurement estimates, previous expenditure records or another method.

Evaluation Criteria

Quantitative indicator: % of adaptation actions that are delayed due to financial or human resourcing constraints (will be calculated using the responses to questions A2 and A3).

Strong:

- <10% of actions delayed due to financial or human resourcing constraints.
- Evidence that actions in the LACAP or SAP have been costed.
- Level of funding available for delivery of adaptation action is deemed adequate.

Good

- <20% of actions delayed due to financial or human resourcing constraints.
- Evidence that actions in the LACAP or SAP have been costed or evidence of a clear and consistent method to estimate costings.

- Level of funding available for delivery of adaptation action is deemed adequate however there are limitations around certainty and budgetary time constraints.

Needs Improvement

- <40% of actions delayed due to financial or human resourcing constraints.
- Limited evidence that actions in the LACAP or SAP have been costed, but with some evidence of a consistent method to estimate costings.
- Level of funding available for delivery of adaptation action is limited or deemed adequate with limitations around certainty and budgetary time constraints.

Weak

- >40% of actions delayed due to financial or human resourcing constraints.
- No evidence that actions in the LACAP or SAP have been costed and no evidence of a consistent method to estimate costings.
- Level of funding available for delivery of adaptation action is limited or deemed inadequate.

1.3. Risks and Impacts (Questions A9-A10)

Scope

The extent to which the sector understands, identifies, measures and monitors the climate risks and impacts affecting its assets, services, operations and general public, including:

- identifying priority climate risks;
- using evidence or geospatial mapping to understand vulnerability and exposure;
- considering cross-sectoral and transboundary risks;
- considering cascading impacts and compound risks, and using this information to support planning and decision-making;
- how climate impacts and losses are recorded and how risk assessments are reviewed and updated over time;

Guidance notes

Question A9:

- For the purpose of this questionnaire, a priority climate risk means a climate-related risk that is particularly important for your sector because it could have substantial or critical consequences, may increase over time, and requires additional action, planning, investment or further investigation to manage it effectively.
- Please aim to include all relevant information for your sector, including where assessment of risk may be undertaken by private sector or semi-state operators.
- The priority risks listed are drawn from the National Climate Change Risk Assessment. Please select all that apply.
- If any priority risks have been geospatially mapped, please indicate this in your response.

Some relevant examples drawn directly from SAP actions include:

- ✓ Produce Risk Assessments for potential invasive alien species

- ✓ Progress development of the National Heritage GIS Hazard Risk mapping and make available to stakeholders
- ✓ Undertake a national scale assessment and prioritisation of coastal sites at risk to interface with the coastal management planning process.
- ✓ Assess the criticality of active travel networks in relation to climate risk
- ✓ Estimate sectoral consequences of risks identified in this Plan, following implementation of the Plan to inform the next adaptation plan.
- ✓ Undertake detailed assessments and produce flood mapping of the potential future flood risk in the areas not covered by the CFRAM Programme where the flood risk is currently low, but is foreseen to become significant due to climate change impacts, on a prioritised basis according to the degree of potential future risk and the timeline for when that risk might develop.
- ✓ Uisce Éireann commissioned Climate Change Risk and Resilience Project
- ✓ Eirgrid flood risk assessments for transmission stations and overhead transmission lines.

<u>Question A10:</u>

- Climate impacts and losses could include, for example, service disruptions, asset damage, community impacts as well as direct, indirect or cascading health impacts.
- The nature of information recorded might include, for example, the nature of the event (e.g. extreme precipitation leading to flooding), the number of people or homes impacted, the location of impacts, geospatial mapping of impacts, the nature and length of service disruption.
- Evidence of this information being used to support decision-making might include regular review of an impact or damage register, such a register being used as evidence to prioritise investments or certain actions in the SAP.

Some relevant examples drawn directly from SAP actions include:

- ✓ Establish and maintain a Climate Impact Register to log climate-related impacts experienced by Planning Team members.
- ✓ Service outage and network damage information data could be captured for analysis with existing historical records.
- ✓ Improve assessments of climate impacts in Ireland's coastal and marine waters.
- ✓ Establish a climate impact register for the EGN sector to log climate-related impacts and sectoral consequences
- ✓ Identify and measure cascading impacts within the health service

Evaluation Criteria:

Strong

- Strong evidence that the full range of relevant priority climate risks is assessed for statutory functions, services and assets.
- Strong evidence that vulnerability and exposure are understood, including geospatial mapping where appropriate.
- Strong evidence that cross-sectoral or transboundary risks have been considered, including pathways through which climate risks may affect human health and populations most at risk.
- Strong evidence that risk assessments are being used to inform decision-making.

- Strong evidence that a systematic process is in place to identify, measure, record and review climate impacts and losses, with records used to support learning and inform prevention, preparedness, response and recovery.

Good

- Reasonable evidence that relevant priority climate risks are assessed for most statutory functions, services and assets.
- Reasonable evidence that vulnerability and exposure are understood, including geospatial mapping where appropriate.
- Reasonable evidence that cross-sectoral or transboundary risks have been considered, including pathways through which climate risks may affect human health and populations most at risk.
- Reasonable evidence that risk assessments are being used to inform decision-making.
- Reasonable evidence that a process is in place to identify, measure, record and review most climate impacts and losses, however there may be gaps in using these records to support learning and inform prevention, preparedness, response and recovery.

Needs Improvement

- Limited evidence that priority climate risks are being assessed for statutory functions, services and assets.
- Limited evidence that vulnerability and exposure are understood, with no evidence of geospatial mapping where it would be appropriate.
- Limited evidence that cross-sectoral or transboundary risks have been considered, including pathways through which climate risks may affect human health and populations most at risk.
- Limited evidence that risk assessments are being used to inform decision making.
- Limited evidence that a process is in place to regularly identify, measure, record and review climate impacts and losses. Records may for example be kept on an ad-hoc basis only and there may be limited evidence that these are being used to support learning and inform prevention, preparedness, response and recovery.

Weak

- No evidence that priority climate risks are being assessed for statutory functions, services and assets.
- No evidence that vulnerability and exposure are understood, with no geospatial mapping where it would be appropriate.
- No evidence that cross-sectoral or transboundary risks have been considered, including pathways through which climate risks may affect human health and populations most at risk.
- No evidence of risk assessments being used to inform decision making
- No evidence that a process is in place to identify, measure, record and review climate impacts and losses.

1.4. Knowledge building, training and engagement (Question A11)

Scope

The extent to which awareness, understanding and capability on climate adaptation is developed and maintained across the sector through structured communication, training and learning activities, including:

- staff training and professional development to strengthen adaptation knowledge, including awareness of cross-sectoral adaptation issues;
- ongoing learning and engagement activities that embed adaptation considerations into routine planning, operational and investment decisions;
- emphasis on consistent, organisation-wide capability building that supports effective implementation of adaptation actions over time;
- leveraging international networks and partnerships.

Guidance notes

Question A11:

- Type of activity might include, for example, awareness raising, in-person training, online training, and on-the-job training.
- Target audience might include, for example, all staff, climate action team staff, elected members, senior management, field operatives, technical staff or specific industry or community groups.

Some relevant examples drawn directly from SAP actions include:

- ✓ Knowledge capacity building seminars
- ✓ Enable training on disaster risk preparedness for cultural heritage and promote the preparation of disaster plans
- ✓ Provide advice, training, and research on farm forestry and related matters.
- ✓ Develop a national forest education strategy for Ireland.
- ✓ Provide basic and enhanced safety training courses to improve safety at sea.
- ✓ Develop and deliver training for relevant stakeholders to inform suitable climate change adaptation requirements within the planning and development management processes in line with the Guidelines for the Planning System and Flood Risk Management
- ✓ Upskill farmers and advisors to ensure they have the knowledge and tools to implement appropriate measures to reduce the impact on water quality and freshwater biodiversity from farming practices.
- ✓ Raise awareness within the tourism sector about impacts of climate change and need for adaptation through a dedicated information on the Fáilte Ireland website
- ✓ Explore existing energy communications and outreach programmes to identify opportunities for enhanced public engagement in relation to climate adaptation

Evaluation criteria:

Strong:

- Activities clearly relate to climate adaptation and recurring provision in place.
- Objectives are clearly linked to adaptation capability, such as understanding risks, applying adaptation in decision-making, sharing good practice, building awareness of cross-sectoral adaptation issues, and supporting public or community understanding.
- Target audiences are well-defined and aligned with implementation needs, including relevant staff, delivery partners, communities, the general public or other affected groups where appropriate.
- The effectiveness of activities is always evaluated.

Good:

- Activities generally relate to climate adaptation, and some recurring provision is in place.
- Objectives are generally linked to adaptation capability, such as understanding risks, applying adaptation in decision-making, sharing good practice, building awareness of cross-sectoral adaptation issues, and supporting public or community understanding.
- Target audiences are reasonably well-defined and reasonably aligned with implementation needs.
- The effectiveness of activities is sometimes evaluated.

Needs Improvement

- Some activities are less clearly related to climate adaptation or provision is limited.
- Objectives are less clear, generic or only weakly linked to adaptation capability.
- Target audiences are identified, but it is not clear how they align with implementation needs (e.g. they may be too broad or incomplete)
- The effectiveness of activities is rarely evaluated.

Weak

- No activities listed or activities do not clearly relate to climate adaptation
- Objectives not specified, consistently generic or not linked to climate adaptation capability
- Target audience unclear
- The effectiveness of activities is never evaluated

1.5. Evidence, Research and Pilots (Question A12)

Scope

The extent to which new evidence is being generated to support climate adaptation through formal research activity and pilot projects, including:

- undertaking or commissioning research or feasibility studies;
- supporting, replicating and engaging with pilot projects, trials or demonstrations that improve understanding of priority climate risks, address critical data gaps, and test adaptation approaches or technologies to evaluate feasibility and effectiveness;
- gathering evidence through surveillance and applying epidemiology to identify, analyse and interpret climate-related risks, impacts and health outcomes, where relevant;

Initiatives concerned with cross-sectoral or cascading risks and impacts are encouraged to collaborate as necessary with climate services providers, academic centres, and international initiatives in this area as well as with other sectors, departments and local authorities.

Guidance notes

Question A12:

- The priority risks listed are drawn from the National Climate Change Risk Assessment.
- Please only include initiatives that have been funded and are confirmed as proceeding, or that have concluded within the past five years.

- Key findings and impact will include a very brief summary of the findings, how these might influence climate adaptation action and any dissemination or communication efforts.

Some relevant examples drawn directly from SAP actions include:

- ✓ Continue to research sustainable control methods in relation to invasive species to protect terrestrial, aquatic and marine life
- ✓ Promote climate resilience related research
- ✓ Analyse potential for loss of tourism resources as a consequence of climate change impacts on heritage and assess cost-effectiveness of adaptation investment for high-risk sites which are also priority for tourism
- ✓ Identify population cohorts who are most vulnerable to climate change and its impacts
- ✓ Research and promote the concept of 'Regenerative Agriculture' and Agroforestry, particularly under Irish conditions
- ✓ Commission research to define baseline and climate resilience targets for the tourism sector that reflect current threats and guide future adaptation efforts
- ✓ Engage with the EPA to identify and address urgent policy-relevant research needs through the EPA's Fast Track to Policy research funding programme.
- ✓ Continue to improve, through ongoing and future research projects, the understanding of potential impacts of climate change on the climatic parameters that can influence flooding and flood risk management

Evaluation Criteria

Strong:

- Projects are clearly adaptation relevant, linked to priority climate risks and the knowledge gap or adaptation need being addressed is clear.
- Evidence links are provided and sufficient to understand the project and its outputs and progress

Good:

- Projects are clearly adaptation relevant. The relevant priority climate risks and description of the knowledge gap or adaptation need may be less clear.
- Evidence links are provided and sufficient to understand the project and its outputs and progress

Needs Improvement

- Research/pilot projects are somewhat adaptation relevant but the relevant priority risks and description of the knowledge gap or adaptation need being addressed are unclear.
- Evidence links are provided, but it is more difficult to understand the project and its outputs or to assess progress.

Weak

- It is not clear how the projects listed relate to climate adaptation or priority climate risks
- Evidence provided is insufficient to understand the project, its outputs or to assess progress

1.6. Cross-sectoral and integrated coordination (Question A13)

Scope

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:

- formal or standing arrangements for communication, information sharing, alignment of priorities and joint decision making between, for example, Government departments, state agencies, local authorities, the private sector, regional bodies and community stakeholders;
- the use of these arrangements to support delivery, remove fragmentation and duplication, and address gaps where implementation responsibilities or dependencies are shared across multiple stakeholders; and
- arrangements that support a joined-up approach to cross-sectoral, transboundary risks, cascading impacts and help to avoid maladaptation, including where actions in one area could increase risk, vulnerability or adverse outcomes elsewhere.

Guidance notes

Question A13:

- The emphasis is on formal and standing arrangements that support integrated action and implementation, rather than on the development of plans or policies (captured under Category 1.1) or capability and awareness activities (captured under Category 1.4).
- When summarising outcomes or key decisions, provide a brief overall summary of the nature of issues considered and decisions reached. This is aiming to give a sense of the purpose and practical contribution of the coordination mechanism, rather than listing all the outcomes of each individual meeting.

Examples of relevant mechanisms drawn directly from SAP actions include:

- ✓ establishment of Sectoral Adaptation Plan (SAP) Implementation Team
- ✓ establishment of a dedicated national adaptation and resilience core group;
- ✓ regional adaptation and resilience working groups;
- ✓ cross sectoral engagement to ensure coherence of cross-sectoral interdependencies and to avoid maladaptation;
- ✓ engagement with local authorities to support delivery of sectoral LACAP actions;
- ✓ extending and rotating industry representation on planning teams;
- ✓ preparedness and emergency response coordination groups.

Evaluation criteria:

Strong:

- Clear formal coordination mechanisms are evidenced, including cross-sectoral and multi-level structures.
- Clear evidence of buy-in and engagement of senior decision-makers in coordination mechanisms
- Mechanisms have defined purpose, scope, relevant membership and agreed terms of reference and meet with appropriate frequency.
- Evidence of practical value in supporting adaptation implementation and decision making

Good:

- Formal mechanisms are in place, including cross-sectoral or multilevel structures
- Reasonable evidence of buy-in and engagement of senior decision-makers in coordination mechanisms
- The purpose and scope of mechanisms is clearly defined, but there are some gaps evident in 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.
- Inconsistent evidence of buy-in and engagement of senior decision-makers in coordination mechanisms
- 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
- Limited or no evidence of buy-in and engagement of senior decision-makers in coordination mechanisms
- The purpose and scope are not defined
- No evidence of practical value in supporting adaptation implementation and decision making

Section B: Delivering Adaptation (Question B1and B2)

Scope

This category refers to the scoping, planning and implementation of real interventions that reduce climate risk, improve resilience and deliver environmental, social, health and economic benefits. This includes the delivery of measures that effectively 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.

This overall category includes three sub-categories:

2.1: Nature-based approaches

Approaches that are inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social, health and economic benefits and help build resilience. Such solutions bring more, and more diverse, nature and natural features and nature-friendly processes into cities, landscapes and seascapes, through locally adapted, resource-efficient and systemic interventions. This would include implementation of the restoration measures defined in the EU Nature Restoration Regulation and use of semi-natural ecosystems to enhance resilience to climate change impacts.

2.2: Technical, technology-led and engineered approaches
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/SUDs, coastal protection works, strengthening or retrofitting critical infrastructure, increasing storage/capacity/redundancy in networks such as water, energy, transport, hospitals, communications), as well as technology-enabled and operational measures that support risk reduction (e.g. monitoring; surveillance and early warning systems; breed, crop and seed varieties; decision support tools; digital platforms or applications; development of adaptive management pathways for infrastructure and assets). The emphasis is on non-nature-based interventions that deliver real risk reduction through engineered, technical, technological, digital or operational solutions.

2.3: Just resilience and community support initiatives
Specific measures that prioritise vulnerable and/or marginalised communities and support adaptation efforts that are inclusive and support fair and equitable outcomes.

Guidance notes
Question B2:

- Please do not include details of pilot projects here. These should be included in the Category 1.5
- Please refer to the scope above when determining the type of intervention. In the case of hybrid interventions please tick all relevant boxes.
- Roles: Implementer is responsible for designing, deploying and operationalising the intervention. An enabler or coordinator may, for example, fund the intervention, oversee external delivery partners (e.g. private sector contractors, semi-state agencies), ensure compliance with regulations where relevant and ensure coordination between all the relevant stakeholders without have direct responsibility for implementation.
- The priority risks listed are drawn from the National Climate Change Risk Assessment.

Evaluation criteria:

Strong:

- Interventions are appropriately linked to priority risks and demonstrate a credible resilience benefit at an appropriate scale and timeframe. (e.g., it protects critical services/assets/communities; addresses significant exposure/vulnerability).
- Strong evidence of implementation is provided, including performance monitoring arrangements and outcome information available.
- Consideration of maladaptation risk is evident, i.e. avoids locking in vulnerability, does not shift risk elsewhere, planning for adaptive pathways evident.

Good:

- Interventions are generally linked to priority risks and demonstrate a credible resilience benefit. The scale of resilience benefit or links to exposure and vulnerability may be less clear.
- Evidence of implementation is provided, and performance monitoring arrangements are described, but outcome information is limited or unavailable.
- Consideration of maladaptation risk is evident but could be more comprehensive.

Needs Improvement

- Interventions are not consistently linked to priority risks and/or the scale of resilience benefit is not always clear.
- Implementation progress is described but this does not include performance monitoring arrangements.
- Maladaptation risk is not clearly addressed or is referenced only in general terms.

Weak

- No interventions or interventions are not clearly linked to priority risks and the resilience benefit is unclear or not plausible at the scale described.
- Little or no evidence of implementation progress provided and performance monitoring arrangements are absent.
- No consideration of maladaptation risk is evident

Definitions

Adaptation

Adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities. (Source: Climate Ireland)

Cascading impacts

Cascading impacts from extreme weather/climate events occur when an extreme hazard generates a sequence of secondary events in natural and human systems that result in physical, natural, social or economic disruption, whereby the resulting impact is significantly larger than the initial impact. (Source IPCC)

Compound risks

Arise from the interaction of hazards, which may be characterised by single extreme events or multiple coincident or sequential events that interact with exposed systems or sectors. (Source IPCC)

Epidemiology

The systematic study and investigation of the distribution and determinants of health-related states and events in populations, and the application of this knowledge to protect and improve public health. In a climate change context, epidemiology draws on health, climate, environmental, demographic, social and other relevant cross-sectoral data to identify and assess observed and anticipated direct, indirect and cascading health risks. It aims to understand exposure pathways and vulnerabilities, develop appropriate health surveillance and intelligence systems, and inform the design of preventive public health and climate change adaptation interventions.

Exposure

The presence of people; livelihoods; species or ecosystems; environmental functions, services, and resources; infrastructure; or economic, social, or cultural assets in places and settings that could be adversely affected. (Source: Climate Ireland)

Governance instrument

Formal, documented policies, plans, strategies, frameworks, guidelines, procedures or regulations that guide or require climate adaptation action and decision-making. They include instruments developed specifically for adaptation, instruments where adaptation has been mainstreamed, and cross-sectoral instruments.

Hazard

The potential occurrence of a natural or human-induced physical event or trend that may cause loss of life, injury, or other health impacts, as well as damage and loss to property, infrastructure, livelihoods, service provision, ecosystems and environmental resources. (Source: Climate Ireland)

Impacts

The effects of climate change on natural and human systems. Depending on the consideration of adaptation, one can distinguish between potential and residual impacts. Potential impacts are all impacts that may occur given a projected climate, without considering adaptation. Residual impacts are the impacts that would occur after adaptation. (Source: Climate Ireland)

Maladaptation
Action or investment that increase vulnerability to the impacts of climate change rather than reducing them. (Source: Climate Ireland)

Mitigation
An anthropogenic intervention to reduce the anthropogenic forcing of the climate system; it includes strategies to reduce greenhouse gas sources and emissions and enhance greenhouse gas sinks.(Source: Climate Ireland)

Priority climate risks
For the purpose of this questionnaire, a priority climate risk means a climate-related risk that is particularly important for your sector because it could have substantial or critical consequences, may increase over time, and requires additional action, planning, investment or further investigation to manage it effectively**.**

Resilience
The capacity of social, economic and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity and structure, while also maintaining the capacity for adaptation, learning and transformation**.** (Source: Climate Ireland)

Risk
The potential for adverse consequences where something of value is at stake and where the occurrence and degree of an outcome is uncertain. In the context of the assessment of climate impacts, the term risk is often used to refer to the potential for adverse consequences of a climate-related hazard, or of adaptation or mitigation responses to such a hazard, on lives, livelihoods, health and well-being, ecosystems and species, economic, social and cultural assets, services (including ecosystem services), and infrastructure. Risk results from the interaction of vulnerability (of the affected system), its exposure over time (to the hazard), as well as the (climate-related) hazard and the likelihood of its occurrence. (Source: Climate Ireland)

Transboundary climate risks
Domestic risks resulting from climate change impacts in other parts of the world (Source: Ireland's Climate Change Assessment Vol 3) and risk resulting from climate change impacts in other local authority areas in Ireland.

Vulnerability

The propensity or predisposition to be adversely affected. Vulnerability encompasses a variety of concepts and elements including sensitivity or susceptibility to harm and lack of capacity to cope and adapt. (Source: Climate Ireland)

Appendix 4: Guidance Notes for Local Authorities

These guidance notes should be read alongside the Adaptation Action Assessment questionnaire. They are designed to help respondents interpret each question consistently and to understand the type and level of information expected in responses. For each question, the guidance notes describe the scope of the question, the criteria that will be used to evaluate responses, and, where relevant, they provide examples drawn directly from some of the Local Authority Climate Action Plans (LACAPs).

Important general notes:

1) In your responses please only include actions that relate to climate change adaptation. This may include combined actions for adaptation and mitigation, but do not include activities that solely relate to climate mitigation. Actions that relate to or partially incorporate adaptation are listed for each local authority in the CARO Adaptation Sectoral Report.
2) Definitions for several key terms used throughout the questionnaire and guidance notes are included in the Appendix.
3) Where possible, please identify the most relevant subsector using the dropdown list provided. This information will support the development of a national overview of the substantial adaptation action being implemented by local authorities across different sectors.
4) Local authority responses will be aggregated and evaluated at CARO level and will not be reported publicly for individual local authorities. Please do select your local authority from the dropdown list where prompted, as this information is needed to support aggregation and analysis at CARO level.

Section A: Building Adaptive Capacity

This section of the questionnaire includes 13 overarching questions. Together these questions assess the enabling conditions required for effective climate adaptation, including the governance, resourcing, evidence, coordination and mainstreaming arrangements needed to support delivery of adaptation actions.

Delivering effective climate adaptation and achieving resilience requires coordinated action across all levels of government and society, given the cross-sectoral and place-based nature of climate risk. Responses should therefore consider not only the climate action team responsible for the Local Authority Climate Action Plan but also draw on input from other relevant service areas, structures, and other actors whose functions, assets, services or decisions are material to climate resilience within the local authority area.

1.1. Governance: Policies and plans (Question A1)

Scope

The extent to which a local authority has established and embedded the policies and plans to steer the process of climate adaptation. This includes the development, approval and adoption of plans, policies, strategies, guidelines and regulatory instruments (including revisions and updates) that support climate adaptation action and decision-making. Initiatives for mainstreaming adaptation into other plans, policies, strategies, guidelines, and regulatory instruments will also be considered.

Please note this category does not include meeting or reporting mechanisms to monitor, coordinate, or implement adaptation action. This is assessed separately under Category 1.6 'Cross-sectoral and integrated coordination'

Guidance notes:

Question A1

Some relevant examples of governance instruments drawn directly from LACAP actions include:

- ✓ major emergency response plans;
- ✓ flood plans;
- ✓ guidelines for nature based sustainable drainage solutions;
- ✓ routine gulley maintenance and cleaning plans;
- ✓ SuDS policy;
- ✓ heritage risk and management plans;
- ✓ invasive alien plant species management plans;
- ✓ incorporation of climate risk and adaptation in other plans such as County Council Corporate Plans or Landscape Strategies.

Please briefly describe how the instrument contributes to climate resilience within your local authority. This may, for example, include its role in managing climate risks, informing decisions, guiding investment, supporting preparedness, protecting vulnerable people or assets. The focus is on the instrument's contribution to resilience rather than describing the instrument in general terms. Supporting evidence could include links to the governance instrument online and /or any associated guidance relating to it.

Evaluation Criteria:

Strong:

- Strong evidence that appropriate and effective climate adaptation governance instruments are in place to require and facilitate adaptation and the achievement of resilience outcomes.
- Strong evidence that substantive reviews are routinely undertaken (i.e. consideration of updated risks, review of scope) and forward review arrangements are in place.
- There is clear evidence that instruments are consistently and effectively supporting climate resilience.

Good

- Reasonable evidence that appropriate and effective climate adaptation governance instruments are being developed or planned.

- Reasonable evidence that reviews are typically undertaken within an appropriate timeframe, with some evidence of gaps. Forward review arrangements are typically in place.
- There is some evidence that instruments are effectively supporting climate resilience.

Needs Improvement

- Limited evidence of appropriate and effective climate adaptation governance instruments being in place or planned.
- Some reviews have been undertaken but not within an appropriate timeframe and no forward review arrangements are in place.
- There is limited evidence that instruments are effectively or consistently supporting climate resilience.

Weak

- Little evidence of appropriate and effective climate adaptation governance instruments being in place or planned.
- No reviews undertaken and no forward review cycle in place.
- No evidence of instruments effectively supporting climate resilience

1.2. Funding and Resources (Questions A2-A8)

Scope

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. This includes:

- whether resourcing is appropriate to the scale and complexity of planned delivery;
- the nature and significance of any shortfalls;
- the extent to which available funding is not fully and effectively used due to budgetary time constraints;
- the extent to which climate adaptation is mainstreamed across relevant funding schemes.

Guidance notes

Questions A2 and A3:

The responses to questions A2 and A3 will only be used to calculate the quantitative indicator under the evaluation criteria below.

- It is acknowledged that LACAPs include a number of combined mitigation and adaptation actions. Please list only those actions that incorporate climate adaptation. Do not include actions that solely relate to climate mitigation. Figures to be provided by CARO.
- Please include the total number of actions that are reported as delayed, regardless of the length of delay.

Question A4:

- Please only provide details for those actions which have experienced a delay of at least 12 months based on the timeline for delivery as stipulated in the LACAP (i.e. those that have been reported as delayed for two consecutive years in regular annual reporting).

- In order to standardise responses please indicate time as Quarter and Year. If stipulated in LACAP as year only, then please respond with Quarter 4 of the relevant year.

Question A7:

- If available, please provide your best cost estimate for delivery of all actions that incorporate climate adaptation in your LACAP then briefly describe how this estimate has been developed. For example, it may be based on action-level costing, budget allocations, business cases, and procurement estimates, previous expenditure records, or another method.

Evaluation Criteria

Quantitative indicator: % of adaptation actions that are delayed due to financial or human resourcing constraints (will be calculated using the responses to questions A2 and A3).

Strong:

- <10% of actions delayed due to financial or human resourcing constraints
- Evidence that actions in the LACAP or SAP have been costed
- Level of funding available for delivery of adaptation action is deemed adequate.

Good

- <20% of actions delayed due to financial or human resourcing constraints
- Evidence that actions in the LACAP or SAP have been costed or evidence of a clear and consistent method to estimate costings
- Level of funding available for delivery of adaptation action is deemed adequate however there are limitations around certainty and budgetary time constraints.

Needs Improvement

- <40% of actions delayed due to financial or human resourcing constraints
- Limited evidence that actions in the LACAP or SAP have been costed, but with some evidence of a consistent method to estimate costings.
- Level of funding available for delivery of adaptation action is limited or deemed adequate with limitations around certainty and budgetary time constraints.

Weak

- >40% of actions delayed due to financial or human resourcing constraints
- No evidence that actions in the LACAP or SAP have been costed and no evidence of a consistent method to estimate costings.
- Level of funding available for delivery of adaptation action is limited or deemed inadequate.

1.3. Risks and Impacts (Questions A9-A10)

Scope

The extent to which the local authority understands, identifies, measures and monitors the climate risks and impacts affecting its assets, services, operations and general public, including:

- identifying priority climate risks;
- using evidence or geospatial mapping to understand vulnerability and exposure;
- considering cross-sectoral and transboundary risks;
- considering cascading impacts and compound risks, and using this information to support planning and decision-making;
- how climate impacts and losses are recorded and how risk assessments are reviewed and updated over time;

Guidance notes

Question A9:

- For the purpose of this questionnaire, a priority climate risk means a climate-related risk that is particularly important for your local authority because it could have substantial or critical consequences, may increase over time, and requires additional action, planning, investment or further investigation to manage it effectively**.**
- Please aim to include all relevant information for your local authority, including where assessment of risk may be undertaken externally (e.g. by private sector or semi-state operators).
- The priority risks listed are drawn from the National Climate Change Risk Assessment which was published following the publication of the LACAPs. If your specific risk is not listed, then please select the closest and most relevant option(s).
- If any priority risks have been geospatially mapped, please indicate this in your response.

Some relevant examples drawn directly from LACAP actions include:

- ✓ Risk assessments of the heritage and cultural assets under the remit of the local authority to assess the vulnerability and the risk to the historical environment from the impacts of climate change and to help build resilience to these important assets.
- ✓ Apply a robust risk assessment and management framework to Local Authority owned buildings and properties to identify and protect against the key vulnerabilities to the impacts of climate change and mitigate against service disruption.
- ✓ Undertake a Risk Assessment of road infrastructure to identify the severity of climate change risks on their function and condition.
- ✓ Assess bridge infrastructure in line with predicted climate impacts, having due regard to the need to appropriately protect, conserve and enhance important habitats and species and European sites, and the conservation status of protected bridges
- ✓ Develop a full spatially led tier three climate risk assessment and adaption plan for the County
- ✓ Work with LAWPRO to develop flood risk assessments for rivers in the County
- ✓ Risk assessment to identify communities vulnerable to climate impacts

Question A10:

- Climate impacts and losses could include, for example, service disruptions, asset damage, community impacts as well as direct, indirect or cascading health impacts.
- The nature of information recorded might include, for example, the nature of the event (e.g. extreme precipitation leading to flooding), the number of people or homes

impacted, the location of impacts, geospatial mapping of impacts, the nature and length of service disruption.
- Evidence of this information being used to support decision-making might include regular review of an impact or damage register; such a register being used as evidence to prioritise investments or certain actions in the LACAP.

Some relevant examples drawn directly from LACAP actions include:

- ✓ Implement the use of the Weather Impact Register across all Municipal Districts to record and collate the actual impacts of all severe weather events on national platform.
- ✓ Ensure recording of flood events (fluvial and pluvial) and major climate events, utilising a Geographic Information System (GIS) based system, to consistently capture locations, impacts, response resources, costs etc., to facilitate the development of climate adaptation measures
- ✓ Deploy weather impact register (WiRE) app to capture information of adverse climate events in a central location for future records, ease of location and reference. Consider rollout of the MapAlerter localised alert and notification service (SMS, App and Email).
- ✓ Record information on extreme events related to climate change to inform future planning of infrastructure upkeep and maintenance of roads.

Evaluation Criteria:

Strong

- Strong evidence that the full range of relevant priority climate risks is assessed for statutory functions, services and assets.
- Strong evidence that vulnerability and exposure are understood, including geospatial mapping where appropriate.
- Strong evidence that cross-sectoral or transboundary risks have been considered, including pathways through which climate risks may affect human health and populations most at risk.
- Strong evidence that risk assessments are being used to inform decision-making.
- Strong evidence that a systematic process is in place to identify, measure, record and review climate impacts and losses, with records used to support learning and inform prevention, preparedness, response and recovery.

Good

- Reasonable evidence that relevant priority climate risks are assessed for most statutory functions, services and assets.
- Reasonable evidence that vulnerability and exposure are understood, including geospatial mapping where appropriate.
- Reasonable evidence that cross-sectoral or transboundary risks have been considered, including pathways through which climate risks may affect human health and populations most at risk.
- Reasonable evidence that risk assessments are being used to inform decision-making.

- Reasonable evidence that a process is in place to identify, measure, record and review most climate impacts and losses, however there may be gaps in using these records to support learning and inform prevention, preparedness, response and recovery.

Needs Improvement

- Limited evidence that priority climate risks are being assessed for statutory functions, services and assets.
- Limited evidence that vulnerability and exposure are understood, with no evidence of geospatial mapping where it would be appropriate.
- Limited evidence that cross-sectoral or transboundary risks have been considered, including pathways through which climate risks may affect human health and populations most at risk.
- Limited evidence that risk assessments are being used to inform decision making.
- Limited evidence that a process is in place to regularly identify, measure, record and review climate impacts and losses. Records may for example be kept on an ad-hoc basis only and there may be limited evidence that these are being used to support learning and inform prevention, preparedness, response and recovery.

Weak

- No evidence that priority climate risks are being assessed for statutory functions, services and assets.
- No evidence that vulnerability and exposure are understood, with no geospatial mapping where it would be appropriate.
- No evidence that cross-sectoral or transboundary risks have been considered, including pathways through which climate risks may affect human health and populations most at risk.
- No evidence of risk assessments being used to inform decision making
- No evidence that a process is in place to identify, measure, record and review climate impacts and losses.

1.4. Knowledge building, training and engagement (Question A11)

Scope

The extent to which awareness, understanding and capability on climate adaptation is developed and maintained across the local authority through structured communication, training and learning activities, including:

- staff training and professional development to strengthen adaptation knowledge, including awareness of cross-sectoral adaptation issues;
- ongoing learning and engagement activities that embed adaptation considerations into routine planning, operational and investment decisions;
- emphasis on consistent, organisation-wide capability building (including elected members) that supports effective implementation of adaptation actions over time;
- leveraging international networks and partnerships.

Guidance notes

Question A11:

- Type of activity might include, for example, awareness raising, in-person training, online training, and on-the-job training.
- Target audience might include, for example, all staff, climate action team staff, elected members, senior management, field operatives or technical staff or specific industry or community groups.

Some relevant examples drawn directly from LACAP actions include:

- ✓ Deliver climate and biodiversity capacity-building training, initiatives, clinics, and events for community groups.
- ✓ Provide Council staff with relevant training in NBS solutions
- ✓ Develop an integrated programme to address invasive alien species through education and with recording and eradication programmes in the public realm.
- ✓ Create training programmes for local authority staff/public in the use of traditional and sustainable materials and skills, carbon literacy, protection of heritage assets and any other specific skills training necessary to address the adaptation, mitigation and emergency management issues arising from the impact of climate change
- ✓ Provision of appropriate and ongoing training for Climate Action Committee Members. Ensure that all staff are aware of how extreme weather events affects the council in terms of provision of services and finances.

Evaluation criteria:

Strong:

- Activities clearly relate to climate adaptation and recurring provision in place
- Objectives are clearly linked to adaptation capability, such as understanding risks, applying adaptation in decision-making, sharing good practice, building awareness of cross-sectoral adaptation issues, and supporting public or community understanding.
- Target audiences are well-defined and aligned with implementation needs, including relevant staff, delivery partners, communities, the general public or other affected groups where appropriate
- The effectiveness of activities is always evaluated.

Good:

- Activities generally relate to climate adaptation, and some recurring provision is in place.
- Objectives are generally linked to adaptation capability, such as understanding risks, applying adaptation in decision-making, sharing good practice, building awareness of cross-sectoral adaptation issues, and supporting public or community understanding.
- Target audiences are reasonably well-defined and reasonably aligned with implementation needs.
- The effectiveness of activities is sometimes evaluated.

Needs Improvement

- Some activities are less clearly related to climate adaptation or provision is limited.
- Objectives are less clear, generic or only weakly linked to adaptation capability.
- Target audiences are identified, but it is not clear how they align with implementation needs (e.g. they may be too broad or incomplete)
- The effectiveness of activities is rarely evaluated.

Weak

- No activities listed or activities do not clearly relate to climate adaptation
- Objectives not specified, consistently generic or not linked to climate adaptation capability
- Target audience unclear
- The effectiveness of activities is never evaluated

1.5. Evidence, Research and Pilots (Question A12)

Scope

The extent to which new evidence is being generated to support climate adaptation through formal research activity and pilot projects, including:

- undertaking or commissioning research studies;
- supporting, replicating and engaging with pilot projects, trials or demonstrations that improve understanding of priority climate risks, address critical data gaps, and test adaptation approaches or technologies to evaluate feasibility and effectiveness;
- gathering evidence through surveillance and applying epidemiology to identify, analyse and interpret climate-related risks, impacts and health outcomes.

Initiatives concerned with cross-sectoral or cascading risks and impacts are encouraged to collaborate as necessary with climate services providers, academic centers, and international initiatives in this area as well as with other sectors, departments and local authorities.

Guidance notes

Question A12:

- The priority risks listed are drawn from the National Climate Change Risk Assessment. If the specific risk the project is addressing is not listed, please select the closest and most relevant option.
- Please only include initiatives that have been funded and are confirmed as proceeding, or that have concluded within the past five years.
- Key findings and impact will include a very brief summary of the findings, how these might influence climate adaptation action and any dissemination or communication efforts.

Some relevant examples drawn directly from LACAP actions include:

- ✓ Conduct Beach Sediment Transportation study, to monitor select sites, document coastal change over time, develop and validate predictive models and inform funding and future interventions having due regard to environmental sensitivities such as European sites and biodiversity.
- ✓ Explore the use of sustainable methods of road surfacing that minimise the use of raw materials
- ✓ Map wildlife corridors across the County and evaluate their ecosystem services including climate change resilience
- ✓ Commission a study to report on the ecosystem services/nature-based solutions provided by trees with reference to their economic/climate change adaptation benefits
- ✓ Continue to participate in research projects on the impacts of climate change (mitigation and adaptation) on heritage sites

- ✓ Work with higher education institutions in the region and utilise their expertise in research and education programmes of mutual interest in particular around regenerative agriculture, Just Transition collaboration, climate adaption and land use and nature-based solutions as well as sectoral adaptation and mitigation research.

Evaluation Criteria

Strong:

- Projects are clearly adaptation relevant, linked to priority climate risks and the knowledge gap or adaptation need being addressed is clear.
- Evidence links are provided and sufficient to understand the project and its outputs and progress

Good:

- Projects are clearly adaptation relevant. The relevant priority climate risks and description of the knowledge gap or adaptation need may be less clear.
- Evidence links are provided and sufficient to understand the project and its outputs and progress

Needs Improvement

- Research/pilot projects are somewhat adaptation relevant but the relevant priority risks and description of the knowledge gap or adaptation need being addressed are unclear.
- Evidence links are provided, but it is more difficult to understand the project and its outputs or to assess progress.

Weak

- It is not clear how the projects listed relate to climate adaptation or priority climate risks
- Evidence provided is insufficient to understand the project, its outputs or to assess progress

1.6. Cross-sectoral and integrated coordination (Question A13).

Scope

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:

- formal or standing arrangements for communication, information sharing, alignment of priorities and joint decision making between, for example, Government departments, state agencies, local authorities, the private sector, regional bodies and community stakeholders;
- the use of these arrangements to support delivery, remove fragmentation and duplication, and address gaps where implementation responsibilities or dependencies are shared across multiple stakeholders; and
- arrangements that support a joined-up approach to cross-sectoral, transboundary risks, cascading impacts and help to avoid maladaptation, including where actions in one area could increase risk, vulnerability or adverse outcomes elsewhere.

Guidance notes

Question A13:

- The emphasis is on formal and standing arrangements that support integrated action and implementation, rather than on the development of plans or policies (captured under Category 1.1) or capability and awareness activities (captured under Category 1.4).
- When summarising outcomes or key decisions, provide a brief overall summary of the nature of issues considered and decisions reached. This is aiming to give a sense of the purpose and practical contribution of the coordination mechanism, rather than listing all the outcomes of each individual meeting.

Examples of relevant mechanisms drawn directly from some LACAP actions include:

- ✓ Adverse Weather Steering Committees;
- ✓ Emergency Response Planning Teams;
- ✓ work with Uisce Éireann and LAWPRO to identify critical and vulnerable receptors in accordance with RBMP and WFD;
- ✓ work with communities to facilitate collaborative adaptation action;
- ✓ engagement with neighbouring local authorities in relation to flood management.

Evaluation criteria:

Strong:

- Clear formal coordination mechanisms are evidenced, including cross-sectoral and multi-level structures.
- Clear evidence of buy-in and engagement of senior decision-makers in coordination mechanisms
- Mechanisms have defined purpose, scope, relevant membership and agreed terms of reference and meet with appropriate frequency.
- Evidence of practical value in supporting adaptation implementation and decision making

Good:

- Formal mechanisms are in place, including cross-sectoral or multilevel structures
- Reasonable evidence of buy-in and engagement of senior decision-makers in coordination mechanisms
- The purpose and scope of mechanisms is clearly defined, but there are some gaps evident in relevant membership, terms of reference and operational frequency.
- Some evidence of practical value in supporting adaptation implementation and decision making

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Needs Improvement

- Formal mechanisms are in place, however there is insufficient cross-sectoral or multilevel engagement to support integrated adaptation decision making.
- Inconsistent evidence of buy-in and engagement of senior decision-makers in coordination mechanisms
- 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
- Limited or no evidence of buy-in and engagement of senior decision-makers in coordination mechanisms
- The purpose and scope are not defined
- No evidence of practical value in supporting adaptation implementation and decision making

Section B: Delivering Adaptation (Question B1 and B2)

Scope

This category refers to the scoping, planning and implementation of real interventions that reduce climate risk, improve resilience and deliver environmental, social, health and economic benefits. This includes the delivery of measures that effectively 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.

This overall category includes three sub-categories:

2.1: Nature-based approaches

Nature based interventions, which are cost-effective and simultaneously provide environmental, social, health and economic benefits and help build resilience. Such solutions bring more, and more diverse, nature and natural features and nature-friendly processes into cities, landscapes and seascapes, through locally adapted, resource-efficient and systemic interventions. This would include implementation of the restoration measures defined in the EU Nature Restoration Regulation and use of semi-natural ecosystems to enhance resilience to climate change impacts.

2.2: Technical, technology-led and engineered approaches

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/SUDs, coastal protection works, strengthening or retrofitting critical infrastructure, increasing storage/capacity/redundancy in networks such as water, energy, transport, hospitals, communications), as well as technology-enabled and operational measures that support risk reduction (e.g. monitoring; surveillance and early warning systems; breed, crop and seed varieties; decision support tools; digital platforms or applications; development of adaptive management pathways for infrastructure and assets). The emphasis is on non-nature-based interventions that deliver real risk reduction through engineered, technical, technological, digital or operational solutions.

2.3: Just resilience and community support initiatives

Specific measures that prioritise vulnerable and/or marginalised communities and support adaptation efforts that are inclusive and support fair and equitable outcomes.

Guidance notes

Question B2:

- Please do not include details of pilot projects here. These should be included in Category 1.5
- Please refer to the scope above when determining the type of intervention. In the case of hybrid interventions please tick all relevant boxes.
- Roles: Implementer is responsible for designing, deploying and operationalising the intervention. An enabler/coordinator may, for example, fund the intervention, oversee external delivery partners (e.g. private sector contractors, semi-state agencies), ensure compliance with regulations or oversee coordination between all the relevant stakeholders without having direct responsibility for implementation.
- The priority risks listed are drawn from the National Climate Change Risk Assessment. If the specific risk the project is addressing is not listed, please select the closest and most relevant option(s).

Evaluation criteria:

Strong:

- Interventions are appropriately linked to priority risks and demonstrate a credible resilience benefit at an appropriate scale and timeframe. (e.g., it protects critical services/assets/communities; addresses significant exposure/vulnerability).
- Strong evidence of implementation is provided, including performance monitoring arrangements and outcome information available.
- Consideration of maladaptation risk is evident, i.e. avoids locking in vulnerability, does not shift risk elsewhere, planning for adaptive pathways evident.

Good:

- Interventions are generally linked to priority risks and demonstrate a credible resilience benefit. The scale of resilience benefit or links to exposure and vulnerability may be less clear.
- Evidence of implementation is provided, and performance monitoring arrangements are described, but outcome information is limited or unavailable.
- Consideration of maladaptation risk is evident but could be more comprehensive.

Needs Improvement

- Interventions are not consistently linked to priority risks and/or the scale of resilience benefit is not always clear.
- Implementation progress is described but this does not include performance monitoring arrangements.
- Maladaptation risk is not clearly addressed or is referenced only in general terms.

Weak

- No interventions or interventions are not clearly linked to priority risks and the resilience benefit is unclear or not plausible at the scale described.
- Little or no evidence of implementation progress provided and performance monitoring arrangements are absent.
- No consideration of maladaptation risk is evident

Definitions

Adaptation

Adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities. (Source: Climate Ireland)

Cascading impacts

Cascading impacts from extreme weather/climate events occur when an extreme hazard generates a sequence of secondary events in natural and human systems that result in physical, natural, social or economic disruption, whereby the resulting impact is significantly larger than the initial impact. (Source IPCC)

Compound risks

Arise from the interaction of hazards, which may be characterised by single extreme events or multiple coincident or sequential events that interact with exposed systems or sectors. (Source IPCC)

Epidemiology

The systematic study and investigation of the distribution and determinants of health-related states and events in populations, and the application of this knowledge to protect and improve public health. In a climate change context, epidemiology draws on health, climate, environmental, demographic, social and other relevant cross-sectoral data to identify and assess observed and anticipated direct, indirect and cascading health risks. It aims to understand exposure pathways and vulnerabilities, develop appropriate health surveillance and intelligence systems, and inform the design of preventive public health and climate change adaptation interventions.

Exposure

The presence of people; livelihoods; species or ecosystems; environmental functions, services, and resources; infrastructure; or economic, social, or cultural assets in places and settings that could be adversely affected. (Source: Climate Ireland)

Governance instrument

Formal, documented policies, plans, strategies, frameworks, guidelines, procedures or regulations that guide or require climate adaptation action and decision-making. They include instruments developed specifically for adaptation, instruments where adaptation has been mainstreamed, and cross-sectoral instruments.

Hazard

The potential occurrence of a natural or human-induced physical event or trend that may cause loss of life, injury, or other health impacts, as well as damage and loss to property, infrastructure, livelihoods, service provision, ecosystems and environmental resources. (Source: Climate Ireland)

Impacts

The effects of climate change on natural and human systems. Depending on the consideration of adaptation, one can distinguish between potential and residual impacts. Potential impacts are

all impacts that may occur given a projected climate, without considering adaptation. Residual impacts are the impacts that would occur after adaptation. (Source: Climate Ireland)

Maladaptation
Action or investment that increase vulnerability to the impacts of climate change rather than reducing them. (Source: Climate Ireland)

Mitigation
An anthropogenic intervention to reduce the anthropogenic forcing of the climate system; it includes strategies to reduce greenhouse gas sources and emissions and enhance greenhouse gas sinks.(Source: Climate Ireland)

Priority climate risks
For the purpose of this questionnaire, a priority climate risk means a climate-related risk that is particularly important for your local authority because it could have substantial or critical consequences, may increase over time, and requires additional action, planning, investment or further investigation to manage it effectively**.**

Resilience
The capacity of social, economic and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity and structure, while also maintaining the capacity for adaptation, learning and transformation**.** (Source: Climate Ireland)

Risk
The potential for adverse consequences where something of value is at stake and where the occurrence and degree of an outcome is uncertain. In the context of the assessment of climate impacts, the term risk is often used to refer to the potential for adverse consequences of a climate-related hazard, or of adaptation or mitigation responses to such a hazard, on lives, livelihoods, health and well-being, ecosystems and species, economic, social and cultural assets, services (including ecosystem services), and infrastructure. Risk results from the interaction of vulnerability (of the affected system), its exposure over time (to the hazard), as well as the (climate-related) hazard and the likelihood of its occurrence. (Source: Climate Ireland)

Transboundary climate risks
Domestic risks resulting from climate change impacts in other parts of the world (Source: Ireland's Climate Change Assessment Vol 3) and risk resulting from climate change impacts in other local authority areas in Ireland.

Vulnerability
The propensity or predisposition to be adversely affected. Vulnerability encompasses a variety of concepts and elements including sensitivity or susceptibility to harm and lack of capacity to cope and adapt. (Source: Climate Ireland)