

# Fourth Climate Change Adaptation Scorecard

Report

2024



## Executive Summary

### Background

The Climate Change Advisory Council developed an adaptation scorecard in 2021 with the aim of measuring annual progress in the implementation of climate change adaptation policies, namely the National Adaptation Framework of 2018, Sectoral Adaptation Plans and Local Authority Adaptation Strategies (2019-2024). The scorecard is based on three questionnaires, issued to the lead departments responsible for nine Sectoral Adaptation Plans, Department of the Environment, Climate and Communications and the County and City Management Association on behalf of local government.

### Summary of 2024 adaptation scorecard

This report covers the fourth edition of the adaptation scorecard, and it reviews activities undertaken during the period March 2023-April 2024 only. Changes were made to the design of the questionnaires and categories of assessment in 2024, based on a review workshop held in September 2023 [1], to make it more streamlined and targeted. Progress in this edition was assessed in the implementation of adaptation policy and increasing resilience with respect to three categories to inform an average overall assessment for each sector. The categories considered are: (i) governance and resourcing (ii) risk and adaptive management, and (iii) policy implementation and mainstreaming. Due to the changes made to the categories it is only possible to assess trends at the overall level in this report. An assessment of the progress of each sector is provided in Table 1 with the sectors and lead departments ranked in order of overall performance based on the results of the assessment.

Four sectors received an overall rating of good, six received a rating of moderate and one received an overall rating of no progress / insufficient evidence. This was an overall improvement from the 2023 scorecard where four sectors received a rating of good, four received a rating of moderate and three a rating of limited.

Table 1: Summary of 2024 adaptation scorecard results per sector and category.

Rank	Sector	Governance & resourcing	Risk & adaptive management	Policy implementation & mainstreaming	Overall
1 <sup>st</sup>	Transport (DoT)	Advanced	Good	Good	Good
=2 <sup>nd</sup>	Flood Risk Management (OPW)	Good	Good	Good	Good
=2 <sup>nd</sup>	Built and Archaeological Heritage (DHLGH)	Good	Good	Good	Good
=2 <sup>nd</sup>	Local Government	Good	Good	Good	Good
5 <sup>th</sup>	Agriculture, Forestry and Seafood (DAFM)	Moderate	Moderate	Good	Moderate
=6 <sup>th</sup>	National Adaptation Framework (DECC)	Moderate	Moderate	Moderate	Moderate
=6 <sup>th</sup>	Communications Networks (DECC)	Moderate	Moderate	Moderate	Moderate
=6 <sup>th</sup>	Water Quality and Water Services Infrastructure (DHLGH) <sup>1</sup>	Moderate	Moderate	Moderate	Moderate
=6 <sup>th</sup>	Health (DoH)	Moderate	Moderate	Moderate	Moderate
10 <sup>th</sup>	Electricity and Gas Networks (DECC)	Limited	Good	Limited	Moderate
11 <sup>th</sup>	Biodiversity (DHLGH) <sup>2</sup>	No progress/insufficient evidence	No progress/insufficient evidence	Limited	No progress/insufficient evidence

## Main findings per category

### Governance and resourcing

Most lead departments were observed to be playing an active role in coordinating adaptation activities through internal structures, dedicated multi-stakeholder committees and working groups. In some

<sup>1</sup> A revised submission was received from DHLGH on 12th June based on the provisional feedback and initial assessment that was issued.

<sup>2</sup> A late submission was received from the National Parks and Wildlife Services on 29th May.

sectors, governance gaps were observed, particularly where human resources are limited, and commercial semi-state agencies and private sector stakeholders are the main entities responsible for implementation. The multi-sectoral and stakeholder nature of addressing climate change adaptation needs remains a challenge. Effective coordination structures should be further strengthened to oversee the inclusive development and implementation of the next sectoral adaptation plans (to be submitted to Government for approval by end of September 2025) and to address cross-cutting issues as identified in the 2024 National Adaptation Framework.

Resourcing remains a consistent constraint across almost all sectors with inadequate human and financial resources for adaptation reported across departments and local government. It is acknowledged that lead departments, agencies and local government do not have full discretion over their funding allocations and skill resourcing. Strong support is required from the Department of Expenditure, NDP Delivery and Reform and Department of Finance to ensure that sufficient resources are in place to deliver adaptation policies and projects.

Only a few departments were observed to have dedicated funding streams in place for adaptation, while others focus on embedding adaptation into existing funding schemes and programmes they operate. In sectors such as electricity and gas networks, water quality and supply and communications networks, the main investments for resilient infrastructure are made through commercial semi-state agencies and private sector companies. There is a further need to scale up financing across departments and local authorities to prioritise climate adaptation and resilience measures in relevant budget sub-heads, schemes and supports. Lead departments, local authorities, regulators and sectoral stakeholders are encouraged to track and report expenditure, investment needs and the impact of adaptation-related expenditure on an annual basis.

The challenges of inadequate human resources and capacity for adaptation were raised by several departments and local government as factors hindering successful adaptation actions. Some departments have limited full-time staff equivalents responsible for adaptation, some add adaptation tasks to the existing portfolios of staff members, while one department has contracted external assistance for the implementation of its sectoral adaptation plan. In the case of local government, DECC has allocated internal staff and financed the Climate Action Regional Offices (CAROs) and three temporary positions within each local authority to support the implementation of the Local Authority Climate Action Plans (LA CAPs). However, it has proved difficult to attract and retain staff at the local government and CARO level due to the low grade and short-term contracts of most of these positions. There is now an increased remit

on these positions given the inclusion of both adaptation and mitigation actions in the LA CAPs. It is recommended for DECC and the Department of Housing, Local Government and Heritage to ensure that the local authority climate-related positions are sanctioned to be permanent and incorporated within local authority structures.

### **Risk and adaptive management**

An increasing focus on research and initiatives to improve knowledge of climate risk and vulnerability was observed from most lead departments and agencies. The development of the National Climate Change Risk Assessment has commenced and this has potential to help shape adaptation planning and policy into the future. All local authorities completed risk assessments to inform their Local Authority Climate Action Plans. Increased engagement of lead departments and stakeholders with Met Éireann's National Framework for Climate Services, as the central hub for a number of key agencies, was also observed.

Several departments and agencies were observed to be actively supporting research to address knowledge gaps. While acknowledging these efforts, there is a continued need to better understand vulnerabilities to the risks and impacts of climate change, including on critical infrastructure, people and the socio-economic drivers of vulnerability, health and well-being, species and ecosystems, productive agricultural systems, forests, wetlands and the marine environment. Only a few departments were able to demonstrate how the outputs from research initiatives are inputting into policy development and change. This requires urgent attention. Concerted research programmes are needed across each sector to ensure that knowledge gaps are addressed and to ensure that research findings are systematically integrated into new policy reform.

### **Policy implementation and mainstreaming**

Progress on the implementation of Sectoral Adaptation Plans was found to be mixed. Most of the Sectoral Adaptation Plans focus on enabling measures linked to adaptation planning rather than actual implementation of adaptation actions and do not contain clear targets and associated key performance indicators (KPIs). This continues to make it difficult to assess progress in the implementation of these plans and this aspect needs to be strengthened in the next iteration of Sectoral Adaptation Plans. It points to the need for robust systems of monitoring, review, evaluation and learning with regard to the implementation of Sectoral Adaptation Plans and LA CAPs through a cycle of continual improvement.

A continued focus on mainstreaming adaptation and resilience into new policies, plans, appraisal frameworks and programmes was evident. However, further analysis is needed on whether this is leading

to effective mainstreaming and the desired enhanced resilience of infrastructure, ecosystems and communities. New infrastructure guidelines were published in 2023 for evaluating, planning and managing public investment projects and will seek to incorporate climate considerations into these projects. New appraisal frameworks have also been developed at sectoral level, including for new transport projects and flood relief schemes. However, urgent measures need to be implemented to ensure the resilience of critical infrastructure. This includes measures to ensure the resilience of critical roads and rail infrastructure through the Department of Transport, local authorities and sectoral stakeholders such as Transport Infrastructure Ireland and Iarnród Éireann, ports through the relevant port authorities, electricity infrastructure through EirGrid, water supply and treatment facilities through Uisce Éireann and medical facilities through the Department of Health. The next set of Sectoral Adaptation Plans should move beyond enabling measures and risk identification and ensure the implementation of projects that deliver tangible impacts to enhance resilience.

# Contents

Executive Summary.....	1
Abbreviations .....	1
1. Introduction.....	2
1.1 Background and Context .....	2
1.2 Overview of process.....	3
2. Summary of Results .....	6
2.1 Overall Summary of Results .....	6
2.2 Findings and observations per category.....	7
2.2.1 Governance and resourcing.....	7
2.2.2 Risk and adaptive management .....	9
2.2.3 Policy implementation and mainstreaming .....	10
2.3 Summary of Challenges and Enablers .....	11
3. Breakdown of Findings per Sector .....	11
3.1 Natural and Cultural Capital .....	12
3.1.1 Built and Archaeological Heritage .....	12
3.1.2 Agriculture, Forestry and Seafood .....	15
3.1.3 Biodiversity .....	17
3.2 Critical Infrastructure.....	19
3.2.1 Transport .....	20
3.2.2 Communications Networks.....	23
3.2.3 Electricity and Gas Networks .....	25
3.3 Water Resource and Flood Risk Management .....	28
3.3.1 Flood Risk Management.....	28
3.3.2 Water Quality and Water Services Infrastructure .....	31
3.4 Public Health.....	34

3.4.1 Health.....	34
3.5 National Adaptation Framework and Local Government .....	37
3.5.1 National Adaptation Framework.....	37
3.5.2 Local Government.....	40
4. Overall Observations.....	43
References .....	45
Appendix A: Key timelines for the 2024 Adaptation Scorecard .....	47
Appendix B: Sample Questionnaires .....	48
Questionnaire - Sectoral Adaptation Plans.....	48
Questionnaire - Local Adaptation Strategies .....	49
Questionnaire - National Adaptation Framework .....	50



## Abbreviations

APSFR	Areas of Potentially Significant Flood Risk
ASSAP	Agricultural Sustainability Support and Advice Programme
CAP	Climate Action Plan
CAROs	Climate Action Regional Offices
CCMA	County and City Management Association
ComReg	Commission for Communications Regulation
CRU	Commission for Regulation of Utilities
DAFM	Department of Agriculture, Food and Marine
DECC	Department of Environment, Climate Change and Communication
DHLGH	Department of Housing, Local Government and Heritage
DoH	Department of Health
DoT	Department of Transport
DPENDR	Department of Public Expenditure, NDP Delivery and Reform
ESB	Electricity Supply Board
GNI	Gas Networks Ireland
HSE	Health Service Executive
IPCC	Intergovernmental Panel on Climate Change
KPIs	Key Performance Indicators
LA CAPs	Local Authority Climate Action Plans
LAWPRO	Local Authority Waters Programme
MPBT	Mobile Phone and Broadband Taskforce
MERL	Monitoring, Evaluation, Reporting and Learning
NAF	National Adaptation Framework
NBAP	National Biodiversity Action Plan
NBS	Nature Based Solutions
NFCS	National Framework for Climate Services
OPW	Office of Public Works
SAPs	Sectoral Adaptation Plans
SCCAPs	Scheme Climate Change Adaptation Plans
SFI	Science Foundation Ireland
WHO	World Health Organisation

# 1. Introduction

## 1.1 Background and Context

Ireland's climate is already changing and has become warmer and wetter over the past thirty years. Projections predict wetter and warmer weather for Ireland in the years ahead as well as an increase in extreme weather events [2]. Increased sea level rise, heatwaves, droughts, storms and extreme rainfall events as well as flooding all pose a considerable risk to Ireland. Volume 1 of Ireland's Climate Change Assessment [3] states that annual average temperatures are now approximately 1.0°C higher than in the early 20<sup>th</sup> century and that sixteen of the top twenty warmest years since 1900 have occurred since 1990. Median annual precipitation was 7% higher in the period 1991–2020, compared to the 30-year period 1961–1990.

In this context, there is concern that societal preparedness for climate change risks is low with policy implementation lagging substantially behind quickly increasing risk levels [4]. With global average temperatures expected to reach or surpass 1.5°C above the 1850–1900 pre-industrial baseline at the latest in the first half of the 2030s, the Intergovernmental Panel on Climate Change (IPCC) has called for climate resilient development and accelerated implementation of adaptation action in this decade to reduce projected losses and damage for humans and ecosystems [5]. In Ireland, the Climate Change Advisory Council has previously called for a greater emphasis on adaptation and the urgent need for improved adaptation and resilience measures [6].

Adaptation policy in Ireland started with the first statutory National Adaptation Framework (NAF) that was prepared and published in 2018 in line with Section 6 of the Climate Action and Low Carbon Development Act of 2015. This framework mandated the development of 9 Sectoral Adaptation Plans and 31 Local Authority Adaptation Strategies to assess climate change risks, implement resilience actions and mainstream adaptation considerations into policy [6]. A second statutory National Adaptation Framework was published in June 2024 [7], and identifies priority sectors under departments that are required to prepare 10 new Sectoral Adaptation Plans for government approval by 30<sup>th</sup> September 2025. The local authority adaptation strategies came to an end in 2024 and these have now been replaced by Local Authority Climate Action Plans, which were published in February 2024 and contain both adaptation and mitigation measures.

With the transition towards a climate resilient economy outlined in the national climate objective, there is an evolving need to identify actions for adaptation, measure progress on the implementation of adaptation policy and to inform the development of future policies. An Adaptation Scorecard has been used by the Climate Change Advisory Council since 2021 to measure the progress of sectoral and local adaptation plans and to monitor implementation of the National Adaptation Framework itself. This edition of the scorecard covered activities undertaken in the period April 2023-March 2024 and is therefore focused on the 2018 National Adaptation Framework, the 9 Sectoral Adaptation Plans mandated by the 2018 National Adaptation Framework and Local Authority Adaptation Strategies that were implemented during the period 2019-2024.

## 1.2 Overview of process

The fourth adaptation scorecard was undertaken based on alterations made to improve the scorecard questionnaires following a review workshop held in September 2023 [8]. Specific questions were added to focus on the financial and human resources being deployed by lead departments towards adaptation activities as well as the impacts from policy implementation and adaptation mainstreaming. An overall streamlining of the questions was undertaken, and adjustments were also made to the categories to avoid duplications and overlaps.

Three separate questionnaires are issued to the nine lead departments responsible for the sectoral adaptation plans, local government and DECC on the coordination and implementation of the National Adaptation Framework. Sample questionnaires are provided in Appendix A. The key timelines of the scorecard process are highlighted in Appendix B. Questionnaire responses were submitted by adaptation focal points from the respective lead departments and agencies as well as the CAROs on behalf of local government. The Council acknowledges and thanks the lead departments, agencies and CAROs for their active participation in the scorecard process.

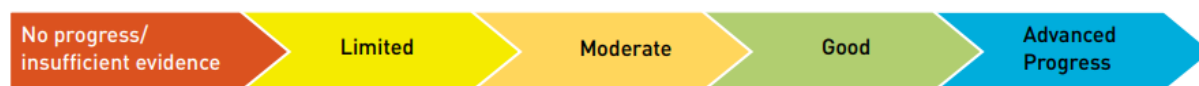
The assessment of the questionnaire responses was carried out by staff members from the secretariat of the Climate Change Advisory Council with support from a subset of members of the Adaptation Committee. The final assessment is based on activities undertaken in the period April 2023 - March 2024 in the implementation of adaptation policy and increasing resilience with respect to the following three categories:

1. **Governance and Resourcing** – the extent to which systemic coordination of adaptation actions and planning is in place across sectors and scales with relevant Departments, agencies and Local

Authorities putting in place the necessary human and financial resources for climate change adaptation.

2. **Risk and Adaptive Management** – the extent to which efforts are being made to understand and address current and future climate risks, knowledge gaps and to proactively overcome barriers to adaptation.
3. **Policy Implementation and Mainstreaming** – whether adaptation is being mainstreamed into policies, plans, strategies, programmes and frameworks and implementation of Sectoral Adaptation Plans and adaptation-related policies are resulting in meaningful impacts for climate resilient development.

These factors are considered key for the successful implementation of adaptation policy and for adaptation preparedness. The 3<sup>rd</sup> category on policy implementation and mainstreaming sought to also acquire information on the impacts of policy implementation and mainstreaming on different aspects of climate resilience. A scoring system was used to assess responses to the questionnaires. This system was consistent with the approach taken in previous years to measure the level of progress as shown in Figure 1.



*Figure 1: Scoring system used to track adaptation progress in the CCAC 2022 Annual Review.*

The assessment was achieved through detailed review and screening of responses against the assessment criteria per category outlined in the following text box:

### **Governance and Resourcing**

- Systematic coordination of sector activities and cross-cutting issues with clear ambition for adaptation and leadership buy-in.
- Appropriate financial resourcing is being applied to achieve policy goals and to deliver measures that enhance resilience of the sector to climate change.
- Appropriate human resourcing is in place to ensure that adaptation is being mainstreamed and the sector and for the effective implementation of adaptation plans.
- Proactive training of staff and stakeholders.

### **Risk and Adaptive Management**

- Evidence of progress in monitoring and building knowledge of risks.
- All/majority of identified risks being addressed.
- Ability to focus and prioritize addressing more defined vulnerabilities and risks.
- Evidence that adaptive capacity is increasing and knowledge gaps being addressed with an effective interface between research and end user needs.

### **Policy Implementation and Mainstreaming**

- Integration of adaptation issues into frameworks, policies, plans, programmes, strategies and guidelines.
- Evidence of developing and implementing new coherent policies and planning frameworks for climate change.
- Regular monitoring and evaluation of SAP and relevant cross cutting issues and taking remedial measures where needed.
- Evidence long term decisions are accounting for the future climate.
- Pursuit of synergies between adaptation and mitigation.
- Demonstration of impacts of the sector's interventions in terms of infrastructure resilience, livelihood improvements and ecosystem health.
- Evidence of understanding and actions being taken to address emerging and cross-cutting issues relevant to the sector (such as, but not limited to nature-based solutions, maladaptation and just resilience).

Once scores were allocated for each of the three categories, an overall score determined for each sector based upon these. It is important to note that the assessment applies to progress made over the period outlined (April 2023 to March 2024) and reported by the sector in response to the questionnaire only. Actions completed before this timeframe for which no further progress was noted in 2023-2024 in the

questionnaire were therefore not considered during the scoring process. It is thus imperative in future that sectors ensure a comprehensive approach to engagement in this process so that the scorecard fairly reflects the level of progress by the sector in the given timeframe.

A summary of the overall results is presented in Section 2, which also includes the main findings and observations across the three categories of the scorecard as they relate to adaptation: (i) governance and resourcing; (ii) risk and adaptive management, and (iii) policy implementation and mainstreaming. It also includes a sub-section on the main challenges and enablers identified by the scorecard respondents. Section 3 provides a detailed breakdown of the findings for each of the sectors assessed. Section 4 provides an overall summary of the main observations from the 2024 adaptation scorecard.

## 2. Summary of Results

### 2.1 Overall Summary of Results

Following the detailed review of sector responses, progress was assessed for the three categories as well as overall for each sector, as shown in Figure 2 with the sectors and lead departments ranked in order of overall performance based on the results of the assessment. It is notable that the progress assessments focus only on climate change adaptation and resilience measures and do not consider the performances of the respective departments and agencies in reducing greenhouse gas emissions. More detailed justifications for the Adaptation Scorecard results per category and sector are outlined in Sections 3 and 4 of this report.

The results of the overall assessment are that:

- Four sectors demonstrated good overall progress
- Six showed moderate progress and
- One sector showed no progress with insufficient evidence supplied.

This was a slight improvement compared to the scorecard results in 2023 with the same four sectors receiving an overall rating of good and three sectors moving from previous rating of limited to moderate (health, communications networks and electricity and gas networks). The National Adaptation Framework (DECC), water quality and water services and infrastructure and agriculture, seafood and forestry were

assessed as moderate. Biodiversity (NPWS) received an overall rating of no progress / insufficient evidence compared to limited in 2023.

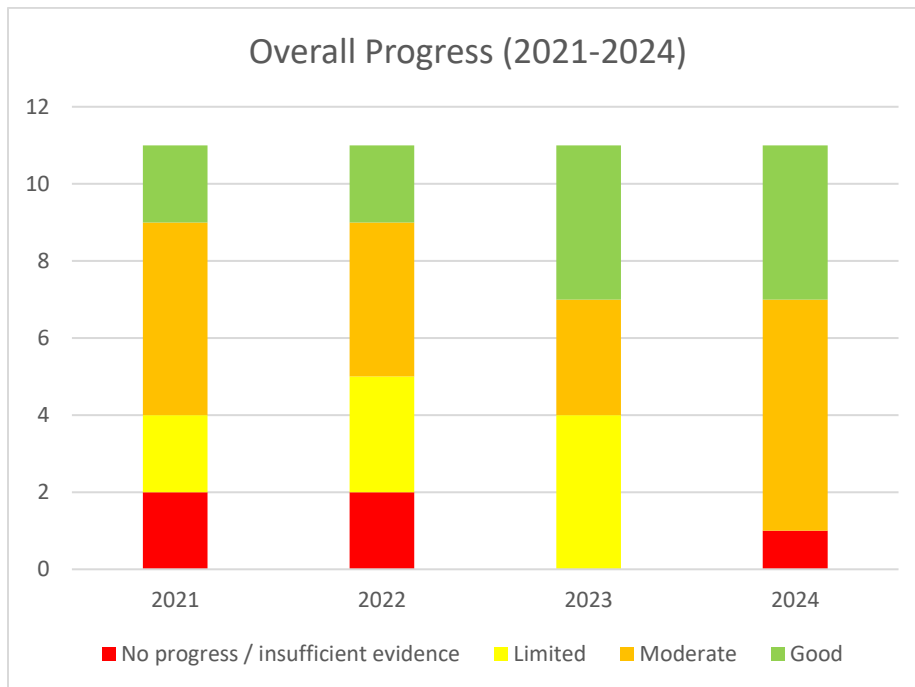


Figure 2: Trends in overall progress across sectors (2021-2024).

## 2.2 Findings and observations per category

### 2.2.1 Governance and resourcing

The focus of this category was on governance arrangements for the implementation of adaptation plans, the allocation of financial and human resources for adaptation-related actions by lead departments and capacity building initiatives. One sector received an advanced progress rating, three sectors received a good rating, five sectors received a moderate rating, one sector each received a limited rating and no progress / insufficient evidence rating.

Several departments were found to have strong internal coordination structures with leadership buy-in and to be undertaking proactive coordination and effective engagement with other stakeholders. Examples of sectors playing a lead role in terms of coordination and cross-sectoral engagement include the DoT, DHLGH (built and archaeological heritage), DAFM, OPW and local government. These structures, as outlined in detail in the Sectoral Adaptation Plan guidelines, are key to the successful implementation of sectoral adaptation plans and are of fundamental importance to oversee the planning and implementation of the next round of sectoral adaptation plans. Where relevant coordination structures should include semi-state bodies and key implementing bodies.

In terms of financing, several sectors such as DHLGH (built and archaeological heritage) have been able to establish dedicated budget sub-heads for adaptation while others have successfully integrated adaptation into their existing support schemes and programmes. These include the DoT (roads development and maintenance), OPW (scheme adaptation plans as part of flood relief schemes), and DHLGH (built and archaeological heritage as well as for peatland restoration). In other sectors such as electricity and gas, water and communications networks, semi-state agencies and private sector entities are responsible for planning and investment linked to the resilience of infrastructure and equipment. In some cases, this information was difficult to obtain. All lead departments, local authorities and sectoral stakeholders are encouraged to track and report adaptation-related expenditure on an annual basis and in support of the green budgeting work undertaken by the Department of Expenditure, NDP Delivery and Reform (DPENDR). It is noted that lead Departments do not have autonomy over their financial and human resources and that DPENDR has a key role to play in ensuring that lead Departments have sufficient financial and human resources in place for the effective implementation of the forthcoming Sectoral Adaptation Plans.

The challenges of inadequate human resources and capacity were raised by several departments and agencies as factors hindering successful adaptation actions. This has also been identified by commercial semi-state agencies as a key barrier to considering adaptation as part of their overall climate objectives [9]. It is notable that different lead departments have varying approaches with regard to human resources for climate change adaptation. Some departments have full-time staff equivalents responsible for adaptation, some add adaptation to existing portfolios, while DHLGH (built and archaeological heritage) has contracted external assistance to assist with the implementation and monitoring of its Sectoral Adaptation Plan. In the case of local government, DECC has allocated internal staff and financed the CAROs and three temporary positions within each local authority to support the implementation of the LA CAPs. It is recommended for DECC and the Department of Housing, Local Government and Heritage to ensure that the local authority climate-related positions are sanctioned to be permanent and incorporated within local authority structures.

In the context of limited human resources and skills for climate change adaptation, proactive training is considered highly important and necessary to enhance knowledge across Government, state agencies and broader society. While several lead departments have been active in terms of training staff members and the broader sectors on aspects of climate change adaptation. The outcomes and impacts of training



activities should be monitored and evaluated on a regular basis to ensure that critical skills gaps facing the sector are being addressed.

### **2.2.2 Risk and adaptive management**

The main focus of this category is on efforts being made to understand and address current and future climate risks, knowledge gaps and to proactively overcome barriers to adaptation. Four sectors received a good rating under this category, six sectors received a moderate rating, and one sector received a rating of no progress / insufficient evidence.

An increasing focus on research and initiatives to improve knowledge of climate risk and vulnerability was observed in the majority of sectors. This includes increased engagement of lead departments and stakeholders with Met Éireann's National Framework for Climate Services as the central hub for a number of key agencies, publication of Ireland's National Climate Change Assessment, risk assessments undertaken by all local authorities to inform their Local Authority Climate Action Plans (LA CAPs) and the commencement of the first National Climate Change Risk Assessment through the Environmental Protection Agency. Several departments are actively supporting research to address knowledge gaps. However, only a few departments were able to demonstrate how the outputs from these initiatives are inputting into policy development and change.

The continued need for better understanding of vulnerabilities to risks and the impacts of climate change remains evident, particularly relating to the effects of climate change on people and the socio-economic drivers of vulnerability, critical infrastructure, health, species and ecosystems, productive agricultural systems, forests, wetlands and the marine environment in terms of fish distribution, harmful algal blooms and plankton. It should be noted that research programmes within Government departments and state agencies are about to get underway or have been initiated on several of these issues.

Several sectors have identified and prioritized their main risks as well as the remediation measures needed to protect critical infrastructure however there is an urgent need overall to unlock the financial resources needed to make identified critical infrastructure and assets more resilient to the changing climate. This includes road and rail infrastructure, electricity sub-stations and water treatment facilities.

### 2.2.3 Policy implementation and mainstreaming

The main focus of this category was on progress in the implementation of the sectoral adaptation plans, the mainstreaming of adaptation in policies, plans, strategies, programmes and frameworks and the impacts from policy implementation for climate resilient development. Five sectors received a good rating under this category, four sectors received a moderate rating, and two sectors received a limited rating.

The implementation of Sectoral Adaptation Plans remains mixed overall. Most of the Sectoral Adaptation Plans focus on enabling measures linked to adaptation planning rather than actual implementation of adaptation measures and do not contain measurable targets and associated key performance indicators (KPIs) and do not contain measurable targets and associated key performance indicators (KPIs). This continues to make it difficult to assess progress in the implementation of these plans and this aspect should be strengthened in the next Sectoral Adaptation Plans. The monitoring, review, evaluation and learning the implementation of Sectoral Adaptation Plans has generally been weak and should be undertaken through a cycle of continuous improvement. Lead departments and agencies are encouraged to ensure that monitoring and evaluation of Sectoral Adaptation Plans is done on an annual basis at a minimum.

Strengthened collaboration across sectors and levels is also needed to ensure coherency between key policy instruments, including the next Sectoral Adaptation Plans, LA CAPs, the second National Adaptation Framework and the National Climate Change Risk Assessment. Better sequencing of adaptation planning activities at local and national scales is required in the next adaptation policy cycle.

A continued focus on mainstreaming adaptation and resilience into new policies, plans, frameworks and programmes was particularly evident from the DAFM, OPW, DHLGH (built and archaeological heritage; and water), DoT and DoH. Further analysis is needed on whether this is leading to the intended enhanced resilience of infrastructure, ecosystems and communities, which also requires relevant policies and plans to have outcome-oriented targets and KPIs. New infrastructure guidelines[10] were developed for public projects and require an assessment of the resilience of projects / programmes to the impacts of climate change. Specific appraisal frameworks were also developed for transport [11] and flood relief scheme projects [12] and contain measures to enhance the climate resilience of new investments in these areas. While these developments may help to climate proof new infrastructure projects, adaptation measures are still needed to ensure the resilience of existing critical infrastructure, including critical roads and rail

infrastructure, ports, electricity sub-stations, water supply and treatment facilities and medical facilities. Delays in planning and implementing infrastructure projects is a continued challenge.

An enhanced enabling framework has been developed for the implementation of nature-based solutions in the management of rainwater in urban areas. This comprises the National Implementation Strategy for the Nature Based Management of Urban Rainwater and Urban Surface Water Discharges [13], Rainwater Management Plan Guidance for Local Authorities [14] and the publication of the advice note on road and street drainage using nature-based solutions [15]. However, the uptake of these approaches in flood relief schemes and projects in urban areas was observed to be low. The implementation of NBS should be further prioritised across sectors in the next Sectoral Adaptation Plans as well as through the LA CAPs, including through appropriate funding streams, training and monitoring and evaluation systems.

## 2.3 Summary of Challenges and Enablers

The main challenges and enablers for success reported by the different sectors have been compiled and overlap significantly with those observed in 2023. Factors relating to the availability and use of climate data, staff capacity and financial resources were the main challenges identified with several sectors also highlighting difficulties in mainstreaming adaptation issues (particularly with broader sectoral stakeholders, including commercial semi-state agencies and private sector entities) and in engaging effectively with other sectors.

The deployment of effective coordination structures and cross-sectoral engagement and efforts to secure resources for adaptation activities were most referenced as enablers. Three sectors each mentioned carrying out gap analyses and internal reviews on performance as well as legal obligations and Climate Action Plan reporting frameworks. The next most referenced enablers were leadership buy-in, networks and sharing of information as well as recruitment and capacity building. The importance of the CCAC scorecard recommendations in identifying priorities for action and having effective implementation plans in place for policies were identified as other important enablers.

## 3. Breakdown of Findings per Sector

The breakdown of findings in this section is provided by sector according to the thematic areas identified in the 2018 National Adaptation Framework. This includes natural and cultural capital, critical

infrastructure, water resources and flood risk management and public health. Lastly the findings for local government and DECC in terms of the coordination of the National Adaptation Framework are provided.

### 3.1 Natural and Cultural Capital

The thematic area of natural and cultural capital outlined in the 2018 NAF includes the Sectoral Adaptation Plans for (i) built and archaeological heritage (ii) agricultural, forestry and seafood and (iii) biodiversity. Table 2 presents the overall scorecard results for these sectors during the period 2021-2024. The built and archaeological heritage sector has showed the greatest progress in this thematic area and the sector received a good rating in both 2023 and 2024, improved from moderate in both 2021 and 2022. The sector of agriculture, forestry and seafood received a moderate rating in 2023 and 2024, improved from a rating of limited in 2022. The biodiversity sector has shown the weakest level of progress alternating between limited and no progress / insufficient evidence.

Table 2: Summary of overall results for the natural and cultural capital thematic area (2021-2024).

Sector	Rating			
	2021	2022	2023	2024
Built and Archaeological Heritage	Moderate	Moderate	Good	Good
Agriculture, Forestry and Seafood	Moderate	Limited	Moderate	Moderate
Biodiversity	Limited	No progress / insufficient evidence	Limited	No progress / insufficient evidence

#### 3.1.1 Built and Archaeological Heritage

The built and archaeological heritage sector was rated as good overall as per the breakdown in Table 3.

Table 3: Breakdown of 2024 adaptation scorecard results for the built and archaeological heritage sector.

Category	Rating
Governance and resourcing	Good
Policy implementation and mainstreaming	Good
Risk and adaptive management	Good
<b>Overall</b>	<b>Good</b>

## **Governance and Resourcing**

Progress under governance and resourcing was rated as good. Good internal governance structures for climate change adaptation are in place and the Department is playing an active role in coordinating and engaging external stakeholders. This includes six working groups and active communication on different aspects to drive implementation and progress. The Department has continued to demonstrate high levels of coordination, collaboration and information sharing with other stakeholders across multiple levels, including at the transboundary level.

While these governance structures were deemed to be effective, external support to the Department is identified as vital for sectoral coordination, tracking of activities and steering progress. The level of full-time equivalent posts dealing with climate change adaptation is low (2.5 full-time equivalent posts with climate change adaptation forming part of the role profile of all senior management). The reliance on an external contractor is a concern with needs and demands likely to increase with the development and implementation of the next Sectoral Adaptation Plan and internal human resources for adaptation should continue to be increased.

In terms of financial resources, the Department has a dedicated budget sub-head for adaptation with funding of €300,000 in 2023 for external consultants and support to the EPA research funding. Building the resilience of heritage assets against climate change is integrated into funding schemes including the Historic Structures Fund, Historic Towns Initiative Grant Scheme Community Monuments Fund with €16.4 million expected to support over 800 projects in 2024 to build the resilience of heritage assets against the impacts of extreme weather. It is noted that this is not a large volume of funding per project. However, the commitment to continue to make strong business cases for additional funding is acknowledged and encouraged to ensure that necessary funding is secured to protect national heritage assets vulnerable to climate change impacts. Continued reporting on the budget, costs and requirements for adaptation is encouraged for tracking needs and trends.

The sectoral training needs survey carried out and detailed list of training events arranged and held during the period under review shows a high level of commitment to building capacity of stakeholders in the broader sector, including at local authority level.

## **Risk and Adaptive Management**

Progress under risk and adaptive management was rated as good. It was observed that a wide range of activities and research are being undertaken to build knowledge of risks and vulnerabilities at the national level as well as through pilot initiatives, hazard mapping and specific assessments at selected sites. It is not clear if a standard national approach to risk assessment is in place for different types of cultural heritage.

It is noted that the Department commissioned a research gap analysis to identify gaps and to propose key research areas over the next five years on cultural heritage and climate action. Significant relevant research is also being undertaken in collaboration with the EPA and other institutions and it is encouraged that the findings of this work continue to inform policy development and practical interventions to improve resilience.

### **Policy Implementation and Mainstreaming**

Progress under policy implementation and mainstreaming was rated as good. Good evidence was provided of mainstreaming climate considerations into funding schemes and budget structures. The inclusion of case studies of specific projects that have enhanced the climate resilience of our heritage assets is encouraged in future submissions as limited information was provided on the positive impacts on our heritage assets through the adaptation projects funded through the Historic Structures Fund, Historic Towns Initiative Grant Scheme and Community Monuments Fund.

There was evidence that climate change considerations continue to be mainstreamed into new policies and strategies such as the Heritage Council's Strategic Plan. The provision of inputs from the Department into each of the Local Authority Climate Action Plans is also a notable effort to ensure the mainstreaming of heritage protection within these Plans. It is encouraged to further incorporate adaptation measures within ongoing measures to retrofit historic buildings and to integrate nature-based solutions into broader measures to protect and make heritage more resilient to climate impacts.

A detailed report was provided on the implementation of the Sectoral Adaptation Plan and provides evidence that regular monitoring of actions is undertaken. It is estimated that 63% of the 48 action areas in the Sectoral Adaptation Plan are progressed, 29% are behind schedule and there has been no progress on 8% of the action areas. The use of measurable targets and indicators is encouraged in the next Sectoral Adaptation Plan to allow for improved evaluation of progress and outcomes. Further information and case

studies on the practical positive impacts of building resilience is encouraged in future submissions and these impacts should be monitored and evaluated appropriately in the next sectoral adaptation plan.

### 3.1.2 Agriculture, Forestry and Seafood

Progress in the agriculture, forestry and seafood sector was rated as moderate overall as per the breakdown in Table 4.

Table 4: Breakdown of 2024 adaptation scorecard results for the sector of agriculture, forestry and seafood.

<span style="color: red;">■</span> No progress / insufficient evidence <span style="color: yellow;">■</span> Limited <span style="color: orange;">■</span> Moderate <span style="color: green;">■</span> Good <span style="color: blue;">■</span> Advanced	
Category	Rating
Governance and resourcing	<span style="color: orange;">■</span>
Policy implementation and mainstreaming	<span style="color: green;">■</span>
Risk and adaptive management	<span style="color: orange;">■</span>
<b>Overall</b>	<span style="color: orange;">■</span>

#### Governance and Resourcing

Progress under governance and resourcing was rated as moderate. Comprehensive governance structures were found to be in place for climate change adaptation, both at Departmental level and at the level of each of the sub-sectors – agriculture, forestry and seafood. These were considered active and provide for leadership buy-in, including the Internal Adaptation Steering Group, Climate Action Management Board and Seafood Climate Action Group. Efforts to engage external stakeholders in governance structures were noted including Teagasc, Marine Institute and Coillte.

General information on financial resources allocated to different programmes was provided and it was noted that adaptation financing is embedded in schemes, sectors, agencies, research, policies and strategies. Some of these schemes such as the Targeted Agriculture Modernisation Schemes (TAMS) were considered more focused on supports for mitigation actions. It was also difficult to disaggregate expenditure specific to adaptation, rather than mitigation or more general environmental expenditure. It is encouraged to include a breakdown of this information in future scorecard submissions on an annual basis as far as possible. It is recommended to conduct further work on tracking adaptation financing on an annual basis and to prioritise climate adaptation and resilience measures in future schemes and supports.

Information was provided on the human resources that are assigned to adaptation, both by the Department and external agencies. It was noted that 14 staff within agriculture are working on climate action with one full time equivalent staff on adaptation and expertise among three other staff members, Forestry has a small, dedicated team on climate policy supported by several staff members for adaptation and members of the Seafood Climate Action Group work on adaptation policies and strategies. The establishment of adaptation focal points in external agencies such as Teagasc, Coillte and Bord Iascaigh Mhara (BIM) is welcomed. Some skills gaps were identified and it is encouraged to build capacity to address these gaps and to assess whether human resources for adaptation are sufficient given the need to enhance the resilience of agriculture, forestry and the seafood industry to climate change. While the report provided detail training activities and an increased focus on adaptation specific training is recommended. Further engagement and outreach are encouraged to mainstream adaptation across the three sub-sectors.

### **Risk and Adaptive Management**

Progress under risk and adaptive management was rated as moderate. It was noted that the climate impacts and vulnerabilities assessment for agriculture and forestry was reviewed and updated and has guided DAFM research activities. There is evidence of a substantive research focus on climate change adaptation across each of the sub-sectors. However, much of the research is planned rather than initiated, underway or completed. Significant research and information gaps remain in terms of climate risks, impacts and options for adaptation.

It is acknowledged that climate change will affect Irish seafood producers, their dependent communities, environment and related economic activities through direct physical effects, biological and ecological impacts and through indirect broader socio-economic effects. However, it is noted that these effects are still uncertain and unpredictable and that climate projections are not available at the necessary scale. The support from DAFM for four new projects at Marine Institute to acquire new key personnel to enhance the marine evidence base detailed in the submission is encouraging in this context. The uncertainty of projections and scalability is also a challenge in agriculture and forestry.

### **Policy Implementation and Mainstreaming**

Progress under policy and mainstreaming was rated as good. Good evidence was provided of regular monitoring and review of the implementation of the Sectoral Adaptation Plan, although evaluation of the outcomes of implementation was lacking. The actions in the Sectoral Adaptation Plan are general and there



is a need for more targeted and specific actions in the next Sectoral Adaptation Plan to allow for better monitoring and evaluation of progress in implementation.

Good progress continued in mainstreaming adaptation into new policies, planning and financing frameworks that were published during the period under review. These included the National Strategic Plan for Sustainable Aquaculture Development, National Strategy for Horticulture (2023-2027), and Ireland’s Forest Strategy (2023-2030). Issues of adaptation and resilience are built into the strategic objectives of these strategies and their effective and sustained implementation should lead to improved outcomes for climate resilience. The integration of DAFM adaptation actions in NCAP24 was also noted.

Many of the climate action measures in agriculture and forestry are expected to deliver co-benefits for mitigation, adaptation and biodiversity. However, there was limited evidence that the implementation of the Sectoral Adaptation Plan and other climate actions have had positive impacts for the resilience of farmers and the broader environment. Adaptation measures continue to be needed in the agriculture sector given the changing climate conditions being experienced and the continued impacts on food production and livestock.

### 3.1.3 Biodiversity

The biodiversity sector was rated as no progress / insufficient evidence overall as shown in Table 5. This is of concern given that Ireland is in a climate and biodiversity emergency and the need for more ambitious action in relation to both climate and biodiversity.

*Table 5: Breakdown of 2024 adaptation scorecard results for the biodiversity sector.*

■ No progress / insufficient evidence   ■ Limited   ■ Moderate   ■ Good   ■ Advanced

Category	Rating
Governance and resourcing	■
Policy implementation and mainstreaming	■
Risk and adaptive management	■
<b>Overall</b>	■

#### Governance and resourcing

Progress under governance and resourcing was rated as no progress / insufficient evidence. It was noted that there is a lack of governance structures, capacity and programmes in place for climate adaptation and

to oversee the implementation of actions outlined in the sectoral adaptation plan. It was noted that governance structures are in place for the 4<sup>th</sup> National Biodiversity Action Plan and for other restoration and regeneration projects that contribute to climate change adaptation. Approximately €20 million worth of ecological projects are being implemented per year, but information is not provided on how financing is prioritized for climate adaptation measures and whether this is sufficient. Lack of human resources (administrative and specialist scientists) for climate change was identified as a challenge and no training events were reported to increase the capacity of staff and stakeholders on adaptation issues. It is recommended that issues of governance, coordination and resourcing are addressed to improve implementation of the sectoral adaptation plan and to ensure that NPWS plays a more active role in ensuring that biodiversity considerations and opportunities are integrated in the next cycle of sectoral adaptation plans.

### **Risk and adaptive management**

Progress under risk and adaptive management was rated as no progress / insufficient evidence. Besides monitoring linked to the restoration of peatlands and the establishment of a national ‘ecohydrological and carbon flux’ monitoring network, significant data gaps have largely not been addressed in terms of understanding and assessing the vulnerabilities and risks to biodiversity from climate change, including phenology impacts, species distribution, loss of and damage to ecosystems, and changes in invasive species and pests.

It is noted that a SFI Fellowship Project (Translating research into actionable policy: developing a habitat research framework for Ireland), is investigating the case for the network to form part of the European Long-Term Ecosystem Research Network (LTER) and that these initiatives will greatly aid the significant knowledge gaps Ireland has relating to knowledge deficiencies present on biodiversity/ecosystems, climate change and climate change adaptation. It is recommended for NPWS to collaborate with existing research centers / programmes, academic institutions and other stakeholders, in developing a dedicated research programme to better understand the impacts of climate change on Ireland’s habitats and species.

The main challenge reported is human resources capacity to monitor and implement the biodiversity sectoral adaptation plan, both with respect to scientific specialization and administrative support. It is noted that there are very few specialists covering a very wide remit of responsibilities. Limited specific

information was provided on how the approved restructuring of NPWS in 2022 is assisting to overcome this challenge and it is requested to provide this information in future submissions.

### **Policy implementation and mainstreaming**

Progress under policy implementation and mainstreaming was rated as limited. It was noted that the NPWS does not have a programme or capacity to monitor the actions in its sectoral adaptation plan. However, it is stated that progress of the sectoral adaptation plan is monitored indirectly through a number of conservation and restoration programmes for a suite of ecosystems in Ireland designated as Special Areas of Conservation and National Heritage Areas. It is anticipated that the restructuring of NPWS and establishment of the Scientific Advice and Research Directorate will lead to the improved monitoring of the status and condition of sites of European importance.

Considerable coordination and resourcing are still required to ensure the condition of habitats and species outside protected areas is monitored as well as the impacts on biodiversity of nature-based solutions being applied in other areas such as flood relief schemes, urban drainage, integrated constructed wetlands and through various agricultural schemes.

It is welcomed that the 4<sup>th</sup> National Biodiversity Action Plan (NBAP) was finalized and published during the period under review. It is legally binding and commits to develop a nature restoration plan by 2026. It is envisaged that the effective implementation of the NBAP and a SFI Public Service Fellowship Project will progress many of the actions, indirectly or indirectly, in the biodiversity sectoral adaptation plan.

It is reported that the NPWS restoration programme has been particularly progressive with regard to peatlands, an ecosystem of particular importance in climate regulation in Ireland. Limited information was provided on the restoration of other important habitats, or the impacts generated through the implementation of the sectoral adaptation plan and mainstreaming initiatives.

## **3.2 Critical Infrastructure**

The thematic area of critical infrastructure outlined in the 2018 NAF includes the Sectoral Adaptation Plans for (i) transport (ii) communications networks, and (iii) electricity and gas networks. Table 6 presents the overall scorecard results for these sectors during the period 2021-2024. The transport sector demonstrated the strongest progress in this thematic area and the sector received a good rating in both 2023 and 2024, improved from moderate in both 2021 and 2022. The communications networks sector received a

moderate rating in 2024, which was an improvement on the limited rating received in 2023 and 2022 and the no progress / insufficient evidence rating in 2021. The electricity and gas networks sector also received a moderate rating, which was an improvement on previous ratings, albeit with shortcomings observed in the areas of governance and resourcing as well as policy implementation and mainstreaming.

Table 6: Summary of overall results for the critical infrastructure thematic area (2021-2024).

■ No progress / insufficient evidence  
 ■ Limited  
 ■ Moderate  
 ■ Good  
 ■ Advanced

Sector	2021	2022	2023	2024
Transport	■	■	■	■
Communications Networks	■	■	■	■
Electricity and Gas Networks	■	■	■	■

### 3.2.1 Transport

The transport sector was rated as good overall as per Table 7.

Table 7: Breakdown of 2024 adaptation scorecard results for the transport sector.

■ No progress / insufficient evidence  
 ■ Limited  
 ■ Moderate  
 ■ Good  
 ■ Advanced

Category	Rating
Governance and resourcing	■
Policy implementation and mainstreaming	■
Risk and adaptive management	■
<b>Overall</b>	■

### Governance and Resourcing

Progress under governance and resourcing was rated as advanced. There is strong evidence that the Department of Transport has effective governance structures in place for climate change adaptation, including through engaging internal and external stakeholders in developing key governance instruments. It has prioritized the revision of existing steering and planning groups for its Second Sectoral Adaptation Plan. The effectiveness of these governance structures can be surmised based on the membership and accomplishments. The fact that membership has been reviewed and refreshed based on a stakeholder

mapping is positive. The Department also engages actively in cross-sectoral governance fora and working groups as well as in international platforms.

Detailed financial information is provided for the period under review on funding for regional and local roads, including how these are being future-proofed through the climate change adaptation grant. More general information is provided on allocations to national roads and greenways and the East Coast Railway Infrastructure Protection Projects, although this is the only project referenced in terms of the resilience of rail infrastructure. The impacts on rail infrastructure from flood events in the winter of 2023/24 [16], [17] has shown the need to broaden focus on addressing the vulnerability of this infrastructure. The Department has also introduced mechanisms and tools to track and appraise funding targeting climate change adaptation. Although the high costs of climate proofing infrastructure are noted, the scaling up of financing to increase the resilience of infrastructure (especially the climate change adaptation grant) is still recommended and continued reporting on the budget, costs and requirements for adaptation is encouraged for tracking trends and needs in financing adaptation in the sector. It is also recommended to document the lessons learned from the climate change adaptation grant for regional and local roads.

Information is provided on the staff allocated to adaptation under the Climate Adaptation, Research and Energy Division and the Department has built a knowledge base of human resources at sectoral level and to support broader mainstreaming. Stakeholders have reported limited climate adaptation specific training and it is planned to address this gap in 2024. A detailed list of training events linked to adaptation and targeting the sector's broader stakeholders was provided.

### **Risk and adaptive management**

Progress in risk and adaptive management was rated as good. The Department is playing a strong role in identifying and overcoming risks and developing indicators for climate resilience, including through the MERL framework and ongoing work through the TII and EPA. It updated its risk register and other measures included Departmental and stakeholder capacity building, enhancing engagement, funding of targeted research, strategy for identifying those parts of the network which are of greatest importance from a social, economic or emergency response perspective, identification and definition of Common Failure Types within the Regional and Local Road Network and methodological developments (e.g., ECRIPP and light rail and national road networks). There is no specific mention of cascading and/or transboundary risks that have been identified, nor beyond informing the development of the T-SAP II of the use of the climate risk assessment being used to inform specific adaptation actions.

There was evidence that the Department is playing an important role in actively shaping research by identifying and co-funding research projects in a broad range of areas and that research outcomes are filtering into policy such as informing drainage design standards. The challenges facing the sector are well articulated as well as the ongoing efforts to overcome them through the next Sectoral Adaptation Plan.

### **Policy implementation and mainstreaming**

Progress in policy implementation and mainstreaming was rated as good. Strong levels of adaptation considerations in new and updated rules, regulations, and policies were reported. This indicates a good level of mainstreaming of adaptation and examples include the Climate Adaptation Strategy for Regional and Local Roads published in April 2023, the National Ports Policy Issues Paper (which included adaptation as a strategic issue) published in October 2023, and the Transport Appraisal Framework (TAF) published in June 2023, and which includes climate adaptation as criteria for assessment. It is noted that the experience in using the TAF is not yet sufficient to assess its impact.

The Department is commended for the initiative to develop a monitoring, evaluation, reporting and learning (MERL) framework. This is an excellent initiative that has been designed as a mainstreaming mechanism in line with identification of implementation co-benefits during preliminary development stages, to maximise and support increased understanding of adaptation among stakeholders and the benefits of monitoring adaptation progress in their organisations. External stakeholder responses as part of the pilot MERL stakeholder questionnaire were noted as indicating some mainstreaming and scope for improvement over time. This assessment of their responses needs further exploration to provide a more in-depth indication of what this means in terms of mainstreaming and where there is need for improvement.

A detailed report on the implementation of the Sectoral Adaptation Plan was also submitted. 16 out of 21 actions in the Sectoral Adaptation Plan were reported as completed and the high execution rate shows a high level of commitment to implementing the Plan. While many of the actions focus on issues of collaboration, research and mainstreaming, it is recommended to incorporate ambitious actions and targets to make roads, rail, ports and airports more resilient to climate change in the next Sectoral Adaptation Plan. This will also allow for improved demonstration of tangible positive impacts in future. The initiatives highlighted to support nature-based solutions to drainage, biodiversity corridors and circular economy are commended and recommended to be scaled up.

### 3.2.2 Communications Networks

The communications networks sector was rated as moderate overall as per Table 8.

Table 8: Breakdown of 2024 adaptation scorecard results for the communications network sector.

■ No progress / insufficient evidence   ■ Limited   ■ Moderate   ■ Good   ■ Advanced

Category	Rating
Governance and resourcing	Moderate
Policy implementation and mainstreaming	Moderate
Risk and adaptive management	Moderate
<b>Overall</b>	Moderate

#### Governance and resourcing

Progress in governance and resourcing was rated as moderate. Information was provided on governance structures that are in place. These include regular meetings between DECC and the Commission for Communications Regulation (ComReg) on Sectoral Adaptation Plan responsibilities and internal DECC meetings on same. Officials also participate in the Mobile Phone and Broadband Taskforce (MPBT) and the National Emergency Coordination Group. There is mention of an enhanced role for the Taskforce to be used going forward to increase engagement with industry by allowing industry to report to the Taskforce any specific climate mitigation and adaptation measures to ensure the delivery of resilient digital networks and planned sustainability measures related to business operations and infrastructure development. No assessment is provided of the effectiveness of these governance structures and whether human and financial resources are sufficient to meet the needs for adaptation in this sector.

It is noted that investments linked to resilience in this sector are privatized and that DECC mainly provides funding for research and training linked to adaptation and climate action. Information is provided on the staff complement within DECC’s Communications Division and ComReg that are responsible for adaptation with analysts from ComReg providing information regarding network resilience for the purpose of climate adaptation. It is noted that three training events were attended on best practices for resilience of infrastructure, Corporate Sustainability Reporting Directives and climate action leadership. It was not indicated whether there are any capacity needs in the sector.

## Risk and adaptive management

Progress in risk and adaptive management was rated as moderate. It is acknowledged that a vulnerability assessment was carried out as part of the Climate Change and its Effect on Network Resilience report of 2022 and that there is a good understanding of the climate change risks facing the communications networks sector. The need for operators to access more information on how climate change will affect the sector over the long term was noted and improved engagement with Met Éireann is evident.

Positive developments were observed in research with ComReg and DECC having a dedicated 'Climate and Sustainability' research strand. This strand includes providing evidence to support policies which foster green and digital transitions, particularly for SMEs; mapping flood maps onto National Broadband Plan maps; research to examine the impact of sustainability and adaptation policies on the reception of mobile phone signal; and the use of social media and attitudes to climate change-related behaviours and perceptions that could be used to better target climate and adaptation-related information campaigns by ComReg and DECC. Information is included in some cases on how the results have been or are expected to be used.

Information is provided on the main challenges faced and efforts to overcome these such as engagement mechanisms with industry. It is noted that funding has been secured to progress the mobile phone-based public warning system for emergencies. The establishment of this system will enable the Government, via the Mobile Network Operator Networks, to provide information to the public on developments in the event of a major emergency or disaster which pose a significant and imminent threat to human life. This is considered an important measure to operationalize and enhance preparedness and resilience to extreme events.

## Policy implementation and mainstreaming

Progress in policy implementation and mainstreaming was rated as moderate. Information on initiatives to mainstream adaptation is provided. This included:

- Circulation of a questionnaire to industry to seek information on climate change adaptation plans and activities in the sector. This has been a long-standing challenge in the sector and the effort to engage with the private sector is encouraging. Limited information is provided on the outcomes of the survey, and how it is planned to use the information obtained to deliver adaptation policy. It is noted that some communications networks companies are taking a proactive approach to planning for climate and weather-related risks.



- Inclusion of climate change adaptation and mitigation in the work programme of the Mobile Phone and Broadband Taskforce (MPBT). It is encouraging that operators have committed to reporting on their adaptation plans to the MPBT every 2 months using the template of the questionnaire circulated in October 2023.
- Commitment to the “Harnessing Digital – The Digital Framework Strategy” for the digital transition and related technologies to support the achievement of climate targets.
- Requirements of Section 6 of the Communications Regulation and Digital Hub Development Agency Act 2023, Act No 4 of 2023, which obliges operators to take measures to manage risks.

A report was provided on the implementation of actions identified in the Sectoral Adaptation Plan. There is limited indication of the specific (real or expected) positive impacts of the identified actions in the Sectoral Adaptation Plan. The impact of the report 'Climate change and its effect on Network Resilience' on the SAP over the past year is not clear or whether the outlined adaptation measures (such as appropriate battery backup) are adequate and to what extent they have been implemented.

With respect to positive impacts, the report only makes reference to anticipated positive impacts going forward from the inclusion of adaptation within the Mobile Phone and Broadband Taskforce Work Programme. There is also mention of impacts of the National Broadband Plan in terms of supporting cutting GHG emission targets and reaching net-zero by 2050 and impacts of better connectivity.

### 3.2.3 Electricity and Gas Networks

The electricity and gas networks sector was rated as moderate overall as per table 9.

*Table 9: Breakdown of 2024 adaptation scorecard results for the electricity and gas networks sector.*

Category	Rating
Governance and resourcing	Limited
Policy implementation and mainstreaming	Limited
Risk and adaptive management	Good
<b>Overall</b>	Moderate

## **Governance and resourcing**

Progress in governance and resourcing was rated as limited. It was observed that there is no specific governance structure in place for climate change adaptation or oversight of the implementation of the Sectoral Adaptation Plan in this sector. There is reference to a Sectoral Adaptation Plan working group, but it is stated that it would be good to reconvene this group to update on new developments and adaptation progress. ESB, Eirgrid, CRU and GNI are identified as the key entities ensuring climate change adaptation and resilience with DECC responsible for policy oversight. It is recommended to have a governance structure in place to prioritise, coordinate and track adaptation actions in this evolving sector is essential and to prepare for the new Sectoral Adaptation Plan which is to be submitted to Government for approval by September 2025.

Limited information is provided on the human and financial resources allocated by the key entities towards climate adaptation, although it is noted that ESB has a new team focusing on resilient infrastructure requirements. It is noted that the regulatory system ensures that the network companies have sufficient financial resources to invest in and maintain the electricity and gas networks. This includes making investments needed to adapt the networks to climate change, with financial resources for investing in adaptation determined through the price review mechanism.

No indication of the financial resources invested in the previous fiscal year in climate change adaptation was provided nor any indication as to whether the financial resources being invested are sufficient. It is recommended that this information should be included in future submissions so that investments made in adaptation and resilience can be tracked and impact assessed.

## **Risk and adaptive management**

Progress on risk and adaptive management was rated to be good. Detailed information was provided on EirGrid's climate change risk assessment of the transmission system with flooding (fluvial, coastal and pluvial) identified as the biggest risk. Five priority transmission sites are identified for adaptive measures to mitigate the risks of flooding and implementation of these measures is expected in 2028, subject to planning approval. A more rapid response would be appropriate given the magnitude of the potential risks. It was also noted that CRU developed and published the Risk Preparedness Plan for Ireland in 2023 and that GNI commenced a body of work in 2023 relating to climate change scenario modelling and risk assessment to assist GNI to further develop its Climate Adaptation and Resilience Plan for the business.

Engagement with Met Éireann’s NFCS as the central hub for a number of key agencies was noted and the scenario modelling and risk assessments should include information from these resources.

Challenges identified include having adequate resources and budget allocation required to deliver adaptation measures which is to be addressed in the next price review mechanism and the shortage of climate change subject matter experts and engineers to carry out the flood modelling and risk analyses, along with spatial accuracy of data. To address these challenges ESB Networks intends to maintain a close focus on continued engagement with Met Éireann’s NFCS as the central hub for a number of key agencies; availability of a full suite of climate projection maps and climate risk maps in 2024; and release of the National Climate Change Risk Assessment in 2025. It was observed that there is limited research being undertaken by the sector and greater use should be made of expert studies and networks to enhance the robustness of assessments and adaptation actions.

### **Policy implementation and mainstreaming**

Progress in policy implementation and mainstreaming was rated as limited. Mainstreaming is identified as being done in the investment planning and project development stage by the regulator and the network companies, however there is limited indication of progress being made on projects designed to be resilient to climate change. EirGrid and ESNB are reported to have mainstreamed adaptation in their activities with examples provided for in the fifth price review (2021-2025) and next price review mechanism (2026-2030). There is also mention of establishing common risk scenarios and resilience indicators.

For ESB Networks reference is made to the strategic objective of resilient infrastructure within the Networks for Net Zero Strategy and that ESB Networks is certified to ISO 55001 - risk management approach alignment embedded in the business, ensuring that climate risks and mitigations are considered as part of ESB networks investment strategies. It is notable that Gas Networks Ireland (GNI) has developed a planning assessment approach known as ‘envirokit’ that is to be completed for all relevant GNI projects[18], although the extent to which climate change considerations are integrated in envirokit is not clear. While the reference to ISO 55001 is of interest, there is no mention of ISO 14090 or 14091 which deal specifically with climate change adaptation.

Limited specific information is given of actions that demonstrated positive impacts or co-benefits from actions taken during the reporting period, for example on actions and investment to make identified

vulnerable critical infrastructure and assets more resilient to climate risks. It is recommended to include such information in future submissions.

### 3.3 Water Resource and Flood Risk Management

The thematic area of water resource and flood risk management outlined in the 2018 NAF includes the Sectoral Adaptation Plans for (i) flood risk management and (ii) water quality and services infrastructure. Table 10 presents their overall scorecard results for the period 2021-2024. The flood risk management sector, led by OPW, has shown consistently good progress in the implementation of its Sectoral Adaptation Plan. The water quality and services infrastructure sector has received a moderate rating since 2022, compared to the good rating it received in 2021.

Table 10: Summary of overall results for the water resource and flood risk management thematic area (2021-2024).

Sector	Rating			
	2021	2022	2023	2024
Flood risk management	Good	Good	Good	Good
Water quality and services infrastructure	Good	Moderate	Moderate	Moderate

#### 3.3.1 Flood Risk Management

The flood risk management sector was rated as good overall as per the breakdown in Table 11.

Table 11: Breakdown of 2024 results for the flood risk management sector.

Category	Rating
Governance and resourcing	Good
Policy implementation and mainstreaming	Good
Risk and adaptive management	Good
<b>Overall</b>	<b>Good</b>

#### Governance and resourcing

Progress under governance and resourcing was rated as good. The OPW has a clear governance structure in place to prioritise, coordinate and track their actions in response to the Government’s evolving climate

and climate adaptation agenda. This includes a Climate Action Coordination Group that meets on a monthly basis. The OPW also coordinates the Inter-departmental Flood Policy Coordination Group with leads from the Planning Authorities, Local Authorities, Met Éireann and DHLGH participating in twice yearly meetings with adaptation considered as a standing item. Connectivity with multiple sectors is encouraged and it is recommended to develop clear and better linkages with Uisce Éireann in planning and adaptation work.

The approach of the OPW to embed and integrate adaptation in flood risk management is noted and also that budgets for adaptation have been largely allocated within existing budget streams. It might be beneficial, however, in future to show how an awareness of the importance of adaptation in response to climate change issues is being undertaken in funding allocations for work. A higher profile given to the use of the term ‘adaptation’ in project descriptions and budget lines might be sufficient. Scheme Climate Change Adaptation Plans (SCCAPs) are a key priority component of climate adaptation activities in flood risk management and set out how climate change has been accounted for in the capital investment design process and what adaptation measures might be needed and when. These are now being delivered for each flood relief scheme as part of the Flood Risk Management Capital Works Programme. Awareness raising of SCCAPs is considered an ongoing element of the OPW’s work and could be strengthened to demonstrate to the general public how issues of climate change adaptation are being considered in flood relief schemes.

Significant human resources are allocated to issues of adaptation, particularly through the Flood Risk Management and Climate Adaptation Division and the Climate Adaptation and Strategic Assessment Section.

The training programme to increase skills and capacity within adaptation and climate action was noted and the OPW is encouraged to initiate further cross-disciplinary training on adaptive approaches to flood risk management.

### **Risk and adaptive management**

Progress in risk and adaptive management was rated as good. The Predictive National Flood Risk Assessment is ongoing and is assessing the potential future, as well as existing, flood risk nationally as part of the implementation of the EU ‘Floods’ Directive. There are 199 Areas of Potentially Significant Flood Risk (APSFRR) in Ireland as designated by the OPW and these are predominantly dealt with through flood relief schemes.

The OPW is actively supporting research to address knowledge gaps and priorities, including support to the CAROs on climate change impacts on fluvial flooding, as well as projects on high resolution coupled atmosphere-ocean-wave regional climate projections for Ireland and impacts of climate change on high intensity rainfall events and the SLOWATERS project on nature-based solutions. Further research on coastal dynamics and integrated catchment projects, data monitoring needs (including spatial aspects and resolutions), modelling work and future projections (including uncertainties in projections and applications to management solutions).

### **Policy implementation and mainstreaming**

Progress in policy implementation and mainstreaming was rated as good. A detailed report is provided on the implementation of actions outlined in the Sectoral Adaptation Plan. Considerable progress is highlighted in collaboration and coordination and undertaking risk assessments and projections. The report could have included greater detail on substantive actions undertaken to enhance resilience and integrating coastal dynamics into flood risk management approaches. It is noted that coastal flood risk is assessed and managed to the same degree as fluvial flood risk, and the OPW considers that substantive actions are in-hand and progressing with regards to enhancing resilience to both coastal and fluvial risks.

The efforts of the OPW in mainstreaming adaptation into the prevention, protection, preparedness and resilience approach were noted. These include reviewing draft Development Plans, Local Area Plans and Spatial Plans and advising on future flood considerations, bolstering the Flood Risk Management Guidelines to include climate change considerations and developing SSCAPs as part of flood relief scheme development and preliminary design with 81 flood relief schemes under development.

Reference in the submission was made to funding provided to local authorities for minor flood mitigation works or studies to address localized flooding and coastal protection problems. It is noted that coastal surge / tidal barriers are considered under the flood risk management options assessed and, where relevant, in the preparation of flood risk management plans and flood relief projects. The assessment of the potential need and benefits for tidal barriers as adaptation to the potential impacts of climate change are an explicit component of the programme to prepare SCCAPs for existing schemes. It is encouraged to include further information on coastal surge / tidal barrier projects being implemented in future submissions.

A lack of focus on integrating catchment management was observed and a more integrated catchment-based approach to flood risk management was also not profiled in terms of mainstreaming. It is recognized that the delivery of an Integrated Catchment Management approach, with the aim of achieving benefits across a range of objectives, requires engagement and cooperation across multiple sectors, and cannot be delivered under the flood risk management sector alone. Close coordination is required between DHLGH, DAFM, DECC and other stakeholders to ensure the operationalization of integrated catchment management.

Efforts by the OPW to promote and implement nature-based solutions for flood risk reduction as part of flood relief schemes are commended. Nature-based solutions feasibility assessments have been completed in four catchments and the OPW has also supported the SLOWATERS and Waters of LIFE projects to develop knowledge and test nature-based solutions. The lessons learned should now be expanded to other catchments as appropriate.

### 3.3.2 Water Quality and Water Services Infrastructure

The water quality and water services infrastructure sector received an overall rating of moderate as per Table 12.

Table 12: Breakdown of 2024 results for the water quality and water services sector.

■ No progress / insufficient evidence   ■ Limited   ■ Moderate   ■ Good   ■ Advanced

Category	Rating
Governance and resourcing	Moderate
Policy implementation and mainstreaming	Moderate
Risk and adaptive management	Moderate
<b>Overall</b>	Moderate

#### Governance and resourcing

Progress in governance and resourcing was rated as moderate. The Department of Housing, Local Government and Heritage (DHLGH) does not have a specific mechanism to coordinate the planning, implementation and monitoring of its sectoral adaptation plan but several other mechanisms have been put in place to coordinate interventions relating to adaptation in the sector. These include steering groups for the National Implementation Strategy for urban nature-based solutions and for the development of the Rainwater Management Plan guidance document as well as across sectoral committee to coordinate the

Water Quality Programme to ensure compliance with the Water Framework Directive. It is also noted that Uisce Éireann established a sustainability team and climate change working group to coordinate the development of a climate resilient and low greenhouse gas / carbon water and wastewater service.

In this sector, examples were provided of financial resourcing which has been mobilised for adaptation related work, including:

- (i) LAWPRO community development fund for climate adaptation measures,
- (ii) Farming for Water European Innovation Project (EIP) (funded jointly with DAFM),
- (iii) Two NBS pilot research projects in Dublin City Council and Cork County Council,
- (iv) Inland Fisheries Institute programme to research river fragmentation barriers, and
- (v) Dedicated water quality programme funding.

It is noted that the DHLGH does not have a tracking mechanism for adaptation finance within the sub head of water and that there is also no dedicated total allocation of the budget for climate adaptation in the water sub head.

Limited information on staffing capacity or needs within the Department to coordinate adaptation actions within the sector was provided. This should be reviewed to ensure that the necessary human resources are in place across the sector to coordinate and ensure the effective implementation of the next Sectoral Adaptation Plan at the national and local scale. It is noted that the DHLGH has provided funding for 57 local authority posts to strengthen inspections and enforcement under the Local Authority National Agricultural Inspection Programme and that the LAWPRO and ASSAP programmes are being expanded.

Good evidence was provided of training staff in different sectors and disciplines on nature-based solutions but there was no other evidence of training and capacity initiatives relating to climate change adaptation. A targeted programme to build capacity for an integrated approach to drought management and planning is recommended.

### **Risk and adaptive management**

Progress in risk and adaptive management was rated as moderate. It is noted that Uisce Éireann are using Met Éireann's climate projections to assess the risk and resilience of its 50 critical assets to understand the impacts of climate change on water and wastewater services and processes into the future, including the identification of adaptation solutions that could be implemented. It is further noted that Uisce Éireann are currently reviewing the Preliminary Flood Risk Assessment outputs from the EPA and risks to water and



wastewater treatment plants, networks and reservoirs. These are welcome developments, but it is noted that adaptation solutions are yet to be implemented to enhance the resilience of at-risk infrastructure.

Research is being undertaken to monitor the effectiveness of nature-based solutions at removing pollutants at pilot projects in Cork and Dublin. It is noted that specific research projects are to be developed under the research hub element of the Farming for Water project under the European Innovation Partnership (EIP) and further coordinated research is encouraged to address knowledge gaps relating to climate change in the sector.

### **Policy implementation and mainstreaming**

Progress in policy implementation and mainstreaming was rated as moderate. A high-level report was provided on the implementation of the Sectoral Adaptation Plan. While most of the actions in the Sectoral Adaptation Plan are of long-term nature, they lack specific and measurable targets and indicators. It is encouraged to improve this aspect in the next Sectoral Adaptation Plan to allow for improved evaluation of progress and outcomes.

A significant number of policies and plans are either under development or have been recently developed that incorporate climate resilience aspects in this sector. It is noted that climate change adaptation is being mainstreamed into Uisce Éireann's policies, plans and programmes including the National Water Resources Plan, the four Regional Water Resources Plans, Drought Management Plans and Drainage Area Plans and models. The National Water Resources Plan of 2021 sets out a three-pillar approach to safeguard future water needs: lose less, use less and supply smarter. It is to be supported by the National Water Conservation Strategy with measures to reduce and manage drinking water demand over the short and medium term. In terms of drought planning, the National Water Resources Plan contains an appendix on drought planning that recommends measures to be taken before and during drought events. It is envisaged that 539 drought management plans for different zones will be developed but one draft plan is first to be discussed with the EPA before progressing others.

DHLGH is playing a strong role in promoting the use of nature-based solutions in managing rainwater and drainage in urban areas. The development of the Nature-based Solutions Implementation Strategy, rainwater harvesting plan guidance for local authorities and publication of the Design Manual for Urban Roads and Streets using Nature-based Solutions are notable policy developments. The uptake of these approaches in urban realm and flood risk reduction projects is low and their implementation should be

further prioritized through appropriate funding streams, regulations, monitoring and evaluation systems and further cross-disciplinary training. The nature-based programme of Uisce Éireann to treat wastewater through the operation of 15 Integrated Constructed Wetlands (ICWs) is welcomed. The impacts of the ICWs on water quality and biodiversity should be monitored and their use should be expanded.

Several policies and plans critical for planning and implementing adaptation measures on-the-ground have been delayed such as the Water Action Plan (3<sup>rd</sup> River Basin Management Plan), development and implementation of the 46 Catchment Management Plans and the National Water Conservation Strategy. The Catchment Management Plans have potential to improve coordination and integrate adaptation into the management of water resources and broader landscapes at the local level. No further progress is provided on the development and implementation of Catchment Management Plans compared to 2023.

The effective implementation of the various plans and programmes outlined above will require close coordination with multiple stakeholders and levels as well as considerable resources and monitoring and evaluation efforts. Limited information is provided on the impacts of existing policies and plans on strengthening the resilience of water supply and wastewater treatment infrastructure and improving water quality. A review of the influence of the Sectoral Adaptation Plan on other plans and programmes in the sector is supported as part of the Sectoral Adaptation Plan review planned for later in 2024.

### 3.4 Public Health

The thematic area of public health outlined in the 2018 NAF includes only the Health Sectoral Adaptation Plan although it is notable that health impacts on and is affected by almost all other Sectoral Adaptation Plans. Table 13 presents the overall scorecard results for the health sector during the period 2021-2024. It received an improved rating of moderate in 2024 compared to a limited rating in 2023 and 2022 and a rating of no progress / insufficient evidence in 2021.

Table 13: Summary of overall results for the health sector (2021-2024).

■ No progress / insufficient evidence   ■ Limited   ■ Moderate   ■ Good   ■ Advanced

Sector	2021	2022	2023	2024
Health	■ No progress / insufficient evidence	■ Limited	■ Limited	■ Moderate

#### 3.4.1 Health

The health sector was rated as moderate overall in 2024 as per the Table 14.

Table 14: Breakdown of 2024 results for the health sector.

■ No progress / insufficient evidence ■ Limited ■ Moderate ■ Good ■ Advanced

Category	Rating
Governance and resourcing	Moderate
Policy implementation and mainstreaming	Moderate
Risk and adaptive management	Moderate
<b>Overall</b>	Moderate

### Governance and resourcing

Progress in governance and resourcing was rated as moderate. It was noted that a Climate Change Oversight Group is in place and that provides a platform for a joined-up and coherent approach to climate change adaptation. A core group is also in place to oversee the implementation of the HSE Climate Action Strategy, including a working group on adaptation and resilience. It was further noted that a cross-sectoral working group comprising representation from the Departments of Housing and Defence, the HSE and Met Éireann was established in Q4 2023 with the objective of further developing health guidance during heat waves and ensuring a coherent response across all sectors. Information was also provided that Ireland has launched a partnership across the WHO European Region to promote and mainstream the integration of climate adaptation and mitigation concerns into healthcare systems, policies and practices. Some tangible outcomes from these governance structures were also reported.

General information was provided on the allocation of financial and human resources to climate action. Key focus areas in terms of adaptation are issues such as anti-microbial resistance, exposure to ultraviolet radiation, One Health, and the spread of zoonotic diseases. It was noted that work in these areas is appropriately resourced and taking account of climate considerations although identifying and accessing dedicated funding streams to support climate adaptation and mitigation efforts is noted as a key challenge. Prioritisation of allocations within existing funding continues to be the main avenue for resourcing climate action in the health sector. It was reported that the integration of climate considerations into capital expenditure has begun but is an ongoing process which will continue during 2024. It is recommended to conduct further work on tracking adaptation financing and to prioritise the resilience of critical health infrastructure and green space in capital projects.

Skills gaps relating to climate change were identified and additional human resourcing in the areas of epidemiology and public health are required. It was noted that training is provided by the National Health Protection Office on an ongoing basis to Specialist Registrar grades to build capacity in relation to climate challenges. It is recommended to include more detailed information on the training provided as well as the outcomes thereof in future submissions.

### **Risk and adaptive management**

Progress in risk and adaptive management was rated as moderate. It was noted that the health sector has been participating in the National Climate Change Risk Assessment and that this process will further inform the identification of health sector risks and their consideration in the next Sectoral Adaptation Plans. It was also reported that a Future Needs sub-group was established under the HSE Climate Action Strategy core group to identify and anticipate gaps that will need to be addressed in the next Health Sector Adaptation Plan.

It is recommended for the sector to support greater research into issues at the interface of climate change and health including anti-microbial resistance, the spread of zoonotic diseases, climate migration and public health as well as the mental health impacts of climate change on the population and vulnerable groups. The need to better understand the impacts on health across vulnerable groups in the context of climate change is necessary to support equity and fairness in the climate transition.

### **Policy implementation and mainstreaming**

Progress in policy implementation and mainstreaming was rated as moderate. Positive evidence of progress was provided in mainstreaming climate change and the development of long-term plans and policies on climate action. During the period under review, the headline climate action was the publication by the HSE of its Climate Action Strategy 2023-2050. This Strategy includes adaptation and resilience as one of its six priority areas of focus with actions planned to increase the climate resilience of critical health infrastructure, conserve and reduce water consumption and to optimize the use of green space for the promotion of the health and wellbeing of patients, staff and the local communities. It is recommended that these interventions are prioritized and funded accordingly.

Other important developments included updated guidelines to cope with heat waves, incorporation of climate change considerations in the Skin Cancer Prevention Plan and implementation thereof and commencement of work to develop an epidemiology-informed severe weather alert system. The

international partnership is expected to provide a platform for information sharing and capacity building to ensure Irish climate adaptation and mitigation efforts are informed by best practice.

It was observed that there is still limited evidence of co-benefits and impacts from actions outlined in the Sectoral Adaptation Plan with most focus being on the development of policies and plans. Limited evidence of the integration of health adaptation actions across other sectors was observed and this should be addressed in the next Sectoral Adaptation Plans.

### 3.5 National Adaptation Framework and Local Government

The scorecard assessed the performance of DECC in coordinating the 2018 NAF as well as local government at an aggregate level in the implementation of the local authority adaptation strategies. Table 15 presents their overall scorecard results for the period 2021-2024. DECC has consistently received a rating for coordinating the implementation of the 2018 NAF. The performance of local government was rated good over the past three years although it is recognized that their effectiveness in implementing adaptation actions is hampered by a number of constraints, that are elaborated further in section 3.5.2.

Table 15: Summary of overall results for the implementation of the National Adaptation Framework and Local Government (2021-2024)

Sector	<span style="color: red;">■</span> No progress / insufficient evidence <span style="color: yellow;">■</span> Limited <span style="color: orange;">■</span> Moderate <span style="color: green;">■</span> Good <span style="color: blue;">■</span> Advanced				
	2021	2022	2023	2024	
National Adaptation Framework	■	■	■	■	
Local Government	■	■	■	■	

#### 3.5.1 National Adaptation Framework

DECC was rated as moderate overall in coordinating the implementation of the National Adaptation Framework (NAF) as per Table 16.

Table 16: Breakdown of 2024 results for the implementation of the National Adaptation Framework.

■ No progress / insufficient evidence ■ Limited ■ Moderate ■ Good ■ Advanced

Category	Rating
Governance and resourcing	Moderate
Policy implementation and mainstreaming	Moderate
Risk and adaptive management	Moderate
<b>Overall</b>	Moderate

## Governance and resourcing

Progress under governance and resourcing was rated as moderate. DECC has a key role to play in overseeing, coordinating and providing leadership for adaptation actions in Ireland. The core DECC adaptation team is responsible for the coordination, development and implementation of the National Adaptation Framework, mainstreaming adaptation, engaging with sectors on the development and implementation of Sectoral Adaptation Plans, supporting climate action within local authorities and servicing EU and international adaptation requirements. The human resources available within DECC to perform these roles effectively is limited and should be expanded. 2.8 full time equivalents are currently fully dedicated within the Department to national climate adaptation policy while 2 separate full-time resources have been provided to cover climate action within local authorities in the Department since 2023.

As part of efforts to mainstream adaptation, DECC should also promote increased resourcing (human and financial) of Departments and state agencies for adaptation. Since 2018, DECC has been funding the four CAROs which were set up to assist the local government sector to respond and adapt to climate change. Since 2022, DECC has been funding specialist staff in each local authority to form climate action teams made up of a Climate Action Coordinator and Climate Action Officer. A Community Climate Action Officer is also now supported under the Community Climate Action Programme. The strong support from DECC for additional staffing in local authorities to support the delivery of LA CAPs is commended. However, the limited level of human resourcing at the local authority and CAROs level for climate action, the expanded remit of these staff and the short-term nature of the contracts for these posts is a major concern and a risk to the successful implementation of the LA CAPs that needs to be addressed.

An evaluation of the outcomes from the local authority climate training programme was carried out by the Eastern and Midlands CARO/Kildare County Council, overseen by the CCMA and a Steering Group. It will inform the new training plan for local authorities for 2024-2027. A review of the CAROs is scheduled to begin later in 2024.

### **Risk and adaptive management**

Progress on risk and adaptive management was rated as moderate. The National Climate Change Risk Assessment is under development to identify and prioritise national climate change risks (incorporating exposure to climate hazards along with vulnerability to those hazards). This prioritisation will highlight the key areas for short- medium- and longer-term planning and the urgency to deliver on these plans. Adaptation measures that are already in place or planned will be assessed against the prioritised risks. This is a significant development and has real potential to help shape adaptation planning and policy into the future.

A comprehensive update was provided of research and knowledge gaps and planned research that is to be undertaken. Greater attention is needed on how research findings will be integrated into policy and overcome challenges in the implementation of adaptation policies.

Limited awareness of climate change adaptation continues to be a challenge and initiatives such as the National Dialogue on Climate Action should have a stronger adaptation focus to improve understanding and action. A Climate Actions Work (CAW) programme was launched in March 2024 as a national programme of engagement with the aim to increase understanding and action around climate issues. It is strongly recommended for this to have a strong focus on adaptation and engagement of communities on adaptation options and opportunities.

DECC is encouraged to play a strong role in overcoming some of the challenges identified in the submission such as facilitating collaboration and overcoming the siloed approach to the management of cross-cutting issues.

### **Policy implementation and mainstreaming**

Progress on policy implementation and mainstreaming was rated as moderate. A report was provided on the implementation of actions in the 2018 National Adaptation Framework (NAF). Many of these actions are not to be directly implemented by DECC. However, several positive developments were achieved such

as the new Infrastructure Guidelines launched in 2023, launch of the new Climate Ireland, developments around the National Framework for Climate Services and the launch of the Climate Ireland Adaptation Network. The delivery of several important identified actions has also been delayed such as the National Climate Change Risk Assessment and the development of national climate change adaptation indicators. This has knock-on effects on the LA CAPs and SAPs and policy coherency.

Although it was not published during the time period of reporting, the Council notes the publication of the new NAF on 5<sup>th</sup> June 2024. It is hoped that the new NAF will result in a more transformational and smarter, faster and systemic approach to adaptation as per previous Council recommendations. The need for strong Sectoral Adaptation Plan guidelines is also emphasized to ensure that the next SAPs deliver a step-change in terms of ambition and delivery of actions to enhance resilience. The need for targets and impact-oriented indicators aspect should be strengthened in the SAP guidelines and a monitoring, reporting and evaluation framework should be put in place to evaluate implementation of the SAPs.

Efforts made by DECC to mainstream adaptation into medium- and long-term planning frameworks in Ireland such as the revised National Planning Framework and updated National Energy and Climate Plan and Long-Term Strategy are noted. It is anticipated that the updated versions of these frameworks, once finalized, will lead to improved planning and investment for adaptation projects over the medium and long term.

### 3.5.2 Local Government

The local government sector was rated as good overall as per the breakdown in Table 17. Local authorities and the CAROs are playing a key role in implementing adaptation actions, although it is recognized that their effectiveness is hampered by a number of constraints.

*Table 17: Breakdown of 2024 results for the local government sector.*

■ No progress / insufficient evidence   ■ Limited   ■ Moderate   ■ Good   ■ Advanced

Category	Rating
Governance and resourcing	■ Good
Policy implementation and mainstreaming	■ Good
Risk and adaptive management	■ Good
<b>Overall</b>	■ Good



## **Governance and resourcing**

Progress under governance and resourcing was rated as good. Each of the 31 local authorities finalised their Local Authority Climate Action Plans (LA CAPs) during the period under review. Detailed governance structures are in place at national, regional and local level for the implementation of the LA CAPs. The inclusion of both adaptation and mitigation actions in the LA CAPs has increased the remit of the Climate Action Coordinators, Climate Action Officers and CAROs, which were initially focused on adaptation.

In terms of human resourcing, good progress has been made in the recruitment of Climate Action Coordinators and Climate Action Officer posts at local authority level with 60 out of 64 these positions reported filled and these posts are funded by DECC until 2029. Each Local Authority also has a Community Climate Action Officer funded for 3 years under the Community Climate Action Programme, and these are considered key to activating community interest and engagement on climate action. This support from DECC to human resourcing at local authority level is commended but the limited level of human resourcing at the local authority and CARO level for climate action and the short-term nature of the contracts for these posts is a major concern and risk to the successful implementation of the LA CAPs that urgently needs to be addressed.

Although it is noted that many activities from core budgets of local authorities integrate consideration of adaptation measures, it is stated that there are no dedicated resources for adaptation activities in local authorities. Support from central Government is needed to ensure that local authorities have capacity to budget for and are adequately resourced to implement adaptation actions and to track spend accordingly. Climate-related funds and schemes should also integrate biodiversity and nature-based solutions at local authority level to support urban adaptation.

Efforts to build capacity of local authorities and elected members are noted with the completion of the local authority climate action training programme in 2023. 23,000 staff and elected members were reported to be trained from 2021-2023 but no evaluation of training outcomes was provided. This aspect should be considered in the new training plan for local authorities that is under development for 2024-2027.

## **Risk and adaptive management**

Progress in risk and adaptive management was rated as good. Risk assessments were undertaken by all Local Authorities to inform the development of their Local Authority Climate Action Plans in accordance with the guidelines provided by DECC. The CAROs also provided a summary analysis of the risk

assessments, which provides a very useful bird's eye view of the climate risks facing local authorities at both the individual and CARO level. No reference was made to the role of the WIRE App in climate risk and it is recommended to explore the possibility of expanding the WIRE App to monitor the impacts and costs of extreme climate events.

The misalignment of the timelines for the new LA CAPs, NAF, SAPs and National Climate Change Risk Assessment was referenced in the local government submission. Evidence of strengthened collaboration across local authorities and stakeholders was provided and will be needed to ensure due coherency between the LA CAPs and new SAPs for coordinating adaptation actions going forward.

### **Policy implementation and mainstreaming**

Progress in policy implementation and mainstreaming was rated as good. An annual progress report was prepared on the implementation of Local Authority Adaptation Strategies. The annual report from 2023 showed good progress compared to 2022 with almost 34% of the 2,478 actions across the 31 local authorities reported as completed and 59% of actions considered to be ongoing. A breakdown was provided of these actions per local authority and general information was provided on the positive impacts achieved through the implementation of the Local Authority Adaptation Strategies. There was, however, no significant evaluation of the outcomes of implementing these actions.

It is noted that reporting arrangements for implementation of the LA CAPs are still under development. The need for better prioritization of key actions and use of more outcome oriented key performance indicators is recommended to get a better picture of the impacts achieved through the implementation of the LA CAPs. The use of positive case studies and demonstration of adaptation interventions and nature-based solutions within decarbonising zones is also encouraged to allow different local authorities to learn from each other.

Opportunities to mainstream climate adaptation into the corporate plans of each local authority should be capitalized on.

## 4. Overall Observations

The main observations from the fourth Adaptation Scorecard are that:

- While different approaches to financing adaptation-related activities were observed, there is continued concern that the allocation of financial resources for adaptation in most government departments, state agencies and local authorities is inadequate. There is a need to scale up financing across departments and to prioritise climate adaptation measures in relevant budget sub-heads, schemes and supports. Further work should also be undertaken to track adaptation financing, investment needs and the impact of adaptation-related expenditure on an annual basis. DPENDR and Department of Finance have a key role to play in ensuring the adequate resourcing of lead departments considered in this scorecard assessment.
- An improvement is evident in the governance of climate change adaptation within several departments. Most lead departments and agencies are now playing an active role in coordinating adaptation activities through internal structures, dedicated multi-stakeholder committees and working groups. In some sectors, governance gaps were observed, particularly where human resources are limited, and commercial semi-state agencies and private sector stakeholders are the main entities responsible for implementation. Multi-stakeholder coordination structures should be further strengthened and used to oversee the inclusive development of and effective implementation of the next sectoral adaptation plans.
- The limited level of human resourcing at the local authority and CARO level for climate action, the expanded remit of these staff with the new LA CAPs and the short-term nature of the contracts for these posts are considered major concerns and risks to the successful implementation of the LA CAPs that need to be addressed. The low level of human resourcing for climate change adaptation in some lead departments is also considered a risk to the effective implementation of the next round of sectoral adaptation plans.
- Several lead departments have been active in terms of training staff members and the broader sectors on aspects of climate change adaptation. In the context of limited human resources and skills for climate change adaptation, Government needs to clearly define and implement a programme for human resourcing and training of staff across Government Departments and commercial semi-state bodies to build capacity for climate adaptation action across the system.
- There has been an increasing focus on research and initiatives to improve knowledge of climate risk and vulnerability. However, only some sectors were able to demonstrate how the outputs from these initiatives are feeding into policy development and change. The integration of research

findings into policy development relating to adaptation requires the continued attention of all lead departments.

- While an improved understanding of the risks and impacts of climate change on critical infrastructure is evident, there is a need to move towards projects that implement adaptation solutions to improve the resilience of this infrastructure. Most sectors were not able to demonstrate the positive impacts of interventions on enhancing the resilience of infrastructure, systems and people to climate change. The next set of Sectoral Adaptation Plans should target projects that deliver tangible outcomes to enhance resilience.
- There has been continued progress in the development of policies and frameworks to enable adaptation measures and to mainstream adaptation into relevant policies, programmes and frameworks. This is evident in multiple sectors and further analysis is required on the effectiveness and future impacts of this increased mainstreaming on enhancing resilience.
- Although an enhanced enabling framework has been put in place for the implementation of nature-based approaches for the management of rainwater and run-off in urban areas, the uptake of these approaches is low. The implementation of NBS should be further prioritised across sectors in the next Sectoral Adaptation Plans as well as through the LA CAPs, including through appropriate funding streams, training and monitoring and evaluation systems.
- Disappointingly, most of the Sectoral Adaptation Plans do not contain measurable targets, costed actions and associated key performance indicators (KPIs). This continues to make it very difficult to objectively assess progress and monitor and review the implementation of these plans. Lead Government departments and state agencies for Sectoral Adaptation Plans must ensure that the new Plans, to be finalised by September 2025, contain ambitious targets, impactful actions that are costed, and measurable adaptation indicators.
- Aspects of just resilience, avoiding maladaptation and interventions to improve human health and wellbeing are not being considered by most of the sectors in the implementation of the Sectoral Adaptation Plans. These issues need to be better mainstreamed in the next Sectoral Adaptation Plans.

## References

- [1] Climate Change Advisory Council, "Final report Adaptation Scorecard Workshop," 2023, [Online]. Available: <https://www.climatecouncil.ie/councilpublications/otherpublications/Final Scorecard Workshop Report.pdf>
- [2] Met Éireann, "Ireland's Climate Averages 1991-2020," 2023.
- [3] Environmental Protection Agency, *Ireland's Climate Change Assessment - Volume 1*, vol. 1. 2023.
- [4] European Environment Agency, *European Climate Risk Assessment*. 2024. doi: 10.2800/204249.
- [5] IPCC, "Climate Change 2023: Synthesis Report. A Report of the Intergovernmental Panel on Climate Change. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change," 2023.
- [6] Climate Change Advisory Council, "Annual Review 2021," 2021.
- [7] Department of the Environment, Climate and Communications, "National Adaptation Framework: Planning for a Climate Resilient Ireland," p. 110, 2024.
- [8] Climate Change Advisory Council, "Final report Adaptation Scorecard Workshop," 2023.
- [9] NewERA, "Climate Action Framework Q1-2024 Implementation Update," no. June, pp. 1–22, 2024, [Online]. Available: <https://www.ntma.ie/uploads/publication-articles/CAF-Q1-2024-Implementation-Update.pdf>
- [10] Department of Public Expenditure NDP Delivery and Reform, "Infrastructure Guidelines," 2023. Accessed: Jul. 23, 2024. [Online]. Available: <https://www.gov.ie/en/collection/e8040-infrastructure-guidelines/>
- [11] Department of Transport, "Transport Appraisal Framework." Accessed: Jul. 23, 2024. [Online]. Available: <https://www.gov.ie/en/publication/c9038-transport-appraisal-framework-taf/>
- [12] Office of Public Works, "Scheme Climate Change Adaptation Plans Technical Methodology Note for new Flood Relief Schemes," 2023. Accessed: Jul. 23, 2024. [Online]. Available: <https://www.gov.ie/pdf/?file=https://assets.gov.ie/296357/c0d68f9d-9380-4a40-b618-97de51de626a.pdf#page=null>
- [13] Department of Housing Local Government and Heritage, "Nature Based Management of Urban Rainwater and Urban Surface Water Discharges: A National Strategy," 2024. Accessed: Jul. 23, 2024. [Online]. Available: <https://www.gov.ie/pdf/?file=https://assets.gov.ie/293325/cc1beccc-c775-489f-8746-f973ecec196.pdf#page=null>

- [14] Department of Housing Local Government and Heritage, "Rainwater Management Plans - Guidance for Local Authorities," 2024. Accessed: Jul. 23, 2024. [Online]. Available: <https://www.gov.ie/pdf/?file=https://assets.gov.ie/293364/543a8726-85de-4be1-b13f-f5adddce98b8.pdf#page=null>
- [15] Government of Ireland, "Design Manual for Urban Roads and Streets," 2023. Accessed: Jul. 23, 2024. [Online]. Available: <https://www.gov.ie/pdf/?file=https://assets.gov.ie/227051/cbe57ca9-b4c8-4aae-842f-79c805cfc639.pdf#page=null>
- [16] Irish Times, "Flooding on the Ennis-Limerick rail line is getting more serious. So what is the plan?" Accessed: Jul. 24, 2024. [Online]. Available: <https://www.irishtimes.com/transport/2024/04/27/frequent-flooding-on-the-ennis-limerick-line-i-dont-know-will-it-ever-be-fixed/>
- [17] Irish Times, "Orange rain warning in place for Dublin and Wicklow as weather causes major rail delays and flooded roads." Accessed: Jul. 24, 2024. [Online]. Available: <https://www.irishtimes.com/ireland/2023/10/20/storm-babet-yellow-rain-warnings-issued-for-parts-of-munster-and-leinster-after-major-flood-damage/>
- [18] Gas Networks Ireland, "Gas Networks Ireland - Environment." Accessed: Jul. 24, 2024. [Online]. Available: <https://www.gasnetworks.ie/corporate/sustainability/overview/environment/>

## Appendix A: Key timelines for the 2024 Adaptation Scorecard

- **9<sup>th</sup> February:** Questionnaire and guidance document was issued to sectors, CCMA / CAROs and DECC.
- **February – 15<sup>th</sup> April:** Sectors, CCMA / CAROs and DECC completed the questionnaire.
- **15<sup>th</sup> April:** Final questionnaire responses returned to the Council Secretariat.
- **April-May:** Assessment of responses
- **29<sup>th</sup> May:** Provisional feedback issued to sectors, CCMA / CAROs and DECC on main scorecard findings for comment and observations.
- **10<sup>th</sup> June:** Comments and observations from sectors, CCMA / CAROs and DECC on provisional feedback.
- **June-July:** Finalization of assessment and incorporation of the findings in the Council's Annual Review 2024.

### Questionnaire - Sectoral Adaptation Plans

#### Governance and Resourcing

1. Does your department / agency have a **governance structure(s)** in place for climate change adaptation and what main activities were carried out to coordinate adaptation actions in the last year? (Suggested word count: 300-600 words).
2. What initiatives did your department / agency take to ensure that there are sufficient **financial resources for adaptation** activities? (Suggested word count: 300-600 words).
3. What has your Department / Agency done to ensure that there are sufficient internal **human resources** for climate change adaptation actions in your sector? (Suggested word count: 300-600 words).
4. What training (informal and formal) was provided to staff within your sector to **increase skills and capacity within climate adaptation**?

Suggested table for response below (add additional rows as required).

Date	Stakeholders	Event	Organized by	Purpose/Objective	No. of Attendees

#### Policy Implementation and Mainstreaming

5. Please provide an update on the **progress of all applicable Sectoral Adaptation Plan** actions over the past year (i.e. each of the actions set out against each of your objectives). Please include completed and on-going multi-year actions (if applicable).

Suggested Table for response below (add additional rows as required).

Action	Progress made (description)	Stakeholders involved

6. Demonstrate **how adaptation was mainstreamed** or integrated into policies, plans, programmes or regulations over the last year. (Suggested word count: 300-600 words).
7. Describe any other positive impacts or co-benefits generated by the implementation of your adaptation plan and mainstreaming efforts not covered in the questions above. (Suggested word count: 300-600 words).



## Risk and Adaptive Management

8. What **actions** have you undertaken in the past year **to address the most significant risks** posed by climate change as identified in the SAP and other work? *(Suggested word count: 300-600 words).*
9. Indicate any **research** your Department / Agency has initiated or been involved in to overcome identified gaps in knowledge relating to climate change adaptation.
10. Identify and explain the main **challenges faced and enabling conditions that were put in place to support delivery of your Sectoral Adaptation Plan over the past year** *(Suggested word count: 300-600 words).*
11. Are there specific **cross-cutting or general issues** relating to achieving climate resilience that are not being well captured or addressed and that you intend to prioritise in the next Sectoral Adaptation Plan? *(Suggested word count: 300-600 words)*

## Questionnaire - Local Adaptation Strategies

### Governance and Resourcing

1. Provide an assessment of the adequacy of **governance structures** for climate change within Local Authorities. *(Suggested word count: 300-600 words).*
2. Provide an overview of the **dedicated staff (e.g. Climate Action Teams)** and resources within local authorities tasked with delivering climate adaptation. *(Suggested word count: 300-600 words).*
3. Please provide details on the **training** (informal and formal) which has been provided to local authority staff to increase skills and capacity within climate adaptation. Please also provide details on the training provided to elected members.

*Suggested table for response below (add additional rows as required).*

<b>Date</b>	<b>Stakeholders</b>	<b>Event</b>	<b>Organized by</b>	<b>Purpose/Objective</b>	<b>No. of Attendees</b>

4. Provide examples of **initiatives taken by Local Authorities to ensure that there are sufficient financial resources** for adaptation activities at Local Authority level? (Suggested minimum word count: 600).

### Policy Implementation and Mainstreaming

5. Please give an update on the progress in **delivering the high-level goals** or actions (if applicable) across the local adaptation strategies (2019-2024). *(Suggested word count: 300-600 words).*

6. Provide examples where adaptation has been **integrated or mainstreamed into local authority** development plans, Local Economic and Community Development Plans or any other local authority procedures, policies, and regulations. *(Suggested word count: 300-600 words)*.
7. Provide examples of any other **positive impacts or co-benefits generated by the implementation of Local Adaptation Strategies** that were not covered above. *(Suggested word count: 300-600 words)*.
8. What have been the **main lessons learned in implementing the Local Authority Adaptation Strategies** / Climate Action Plans (2019-2024). Please make reference the main challenges that were experienced as well as to the enabling conditions put in place to ensure success. *(Suggested word count: 300-600 words)*.

### **Risk and Adaptive Management**

9. What **actions** were undertaken at local authority level to identify and manage **the most significant risks** posed by climate change? *(Suggested word count: 300-600 words)*.
10. What specific actions were implemented in **collaboration with other stakeholders** that have resulted in **building adaptive capacity** and preparedness for climate change? *(Suggested word count: 300-600 words)*.
11. What activities were carried out to **actively monitor and evaluate the implementation progress** of the strategies and/or their implementation, outputs and outcomes? *(Suggested word count: 300-600 words)*.

## **Questionnaire - National Adaptation Framework**

### **Governance and Resourcing**

1. What **governance structure(s)** does your department currently have in place for climate change adaptation and what main activities were carried out to coordinate adaptation actions in the last year<sup>3</sup>? *(Suggested word count: 300-600 words)*.
2. What initiatives did your department take to ensure that there are sufficient **financial resources for adaptation** activities relating to the National Adaptation Framework? *(Suggested word count: 300-600 words)*.

---

<sup>3</sup> Please refer to the period April 2023 – March 2024 inclusive in all question responses.

- What has your department done to ensure that there are sufficient **human resources** for climate change adaptation actions relating to the National Adaptation Framework and its coordination? *(Suggested word count: 300-600 words).*

### Policy Implementation and Mainstreaming

- Please provide an **update of progress on the key actions and identified supporting objectives** under the National Adaptation Framework that were reported as ongoing in 2023. *Suggested Table for response below (add additional rows as required).*

Action / Supporting Objective	Progress made (description)	Status (complete / ongoing / delayed)	Stakeholders involved	Comments / justification

- Discuss **how adaptation has been integrated and mainstreamed** into other government policy as a result of the implementation of the National Adaptation Framework and related efforts. *(Suggested word count: 300-600 words).*
- Discuss how **communication and consultation** on adaptation has been undertaken across government at the national, regional, and local scales. *(Suggested word count: 300-600 words)*

### Risk and Adaptive Management

- Outline the role you see the National Climate Change Risk Assessment will play in addressing exposure to climate hazards in the short and long term? *(Suggested word count: 300-600 words).*
- Outline actions taken in the last year to actively **monitor and evaluate the implementation progress** of the National Adaptation Framework and identify and address knowledge gaps. *(Suggested word count: 300-600 words).*
- Identify and explain the **main challenges and enablers** encountered over the last year when implementing the Framework. *(Suggested word count: 300-600 words).*
- Provide examples of **research** and other **innovations** that have been introduced (over the last year) that have **facilitated integration of adaptation into practices and policies**. *(Suggested word count: 300-600 words).*

11. What are the key specific **priorities and issues** relating to achieving climate resilience that will be addressed through the new National Adaptation Framework? (*Suggested word count: 300-600 words*).