



Northern Ireland Climate Change Adaptation Programme 2019 - 2024 **End of Programme Report**

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Depairtment o'
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Introduction

Under the UK Climate Change Act 2008 (the Act), Northern Ireland Government Departments are required to put forward policies, plans and proposals in response to the risks posed by climate change as identified in the most recent UK Climate Change Risk Assessment (CCRA) produced under the Act.

The second CCRA was laid in Parliament in 2017 and in response to it, the Department of Agriculture, Environment and Rural Affairs (DAERA)











coordinated and published the Second Northern Ireland Climate Change Adaptation Programme 2019 - 2024 (NICCAP2) in September 2019.

NICCAP2 was developed to achieve the following overarching aim:

‘A resilient Northern Ireland which will take timely and well-informed decisions to address the socio-economic and environmental impacts of climate change’.

To achieve this aim, NICCAP2 was further structured around five key priority areas for climate adaptation, which contained seven outcome objectives and visions as described below in Figure 1.

Figure 1: NICCAP2 Key Priority Areas and Outcome Objectives





NICCAP2 Key Priority Areas	NICCAP2 Outcome Objectives and Visions
NC Natural Capital, including Terrestrial Coastal/Marine/ Freshwater ecosystems, Soils and Biodiversity.  	<ul style="list-style-type: none"> - NC1: We will have species, habitats and water bodies that are resilient to the impacts of climate change. - NC2: We have coastal communities, habitats, landforms and infrastructure that are resilient to the impacts of climate change. - NC3: We have soils and woodland that are resilient to the impacts of climate change.
IF Infrastructure Services.  	<ul style="list-style-type: none"> - IF1: We have Transport & Network Services that are resilient to the impacts of flooding & extreme weather.
P People & Built Environment.  	<ul style="list-style-type: none"> - P1: We have people, homes, buildings and communities that are resilient to the impacts of flooding & extreme weather.
B Disruption to Businesses & Supply Chains.  	<ul style="list-style-type: none"> - B1: We have businesses that can adapt to the impacts of climate change & extreme weather.
I Food Security/Global Food Production.  	<ul style="list-style-type: none"> - I1: We have a food system that is resilient to the impacts of climate change.

The second Climate Change Risk Assessment (CCRA2) identified a total of 49 risk areas spread across the five key areas NICCAP2 used as its overarching structure. To respond to these risks, DAERA engaged sectoral experts from each Government Department with responsibility for the identified risks, to develop a total of 63 Delivery Plan Actions to be delivered throughout the course of the Programme. In addition to these actions, and in recognition of the collaborative effort required for effective climate change adaptation, DAERA engaged bodies from across civil society, organisations and local governments through the Climate NI Project. This engagement delivered a further 50 Delivery Plan Actions to contribute towards the delivery of NICCAP2's outcome objectives.

Mid-Programme Reporting on Progress

To allow for the dynamic nature of climate change and adaptation policy, NICCAP2 was developed to include a mid-programme review in addition to this end of programme report. The mid-programme review was published on the DAERA website in 2022 and provides an assessment of the progress made in delivering each of the actions in the Delivery Plan. At this review, 14 of the 63 Government Delivery Plan Actions were found to be completed, and a further 9 new actions were added from across Government Departments. This stage also allowed for 27 new actions to be added from civil society organisations and Local Government to create a total of 150 actions initiated and progressed through the lifetime of NICCAP2.

Figure 2: RAG Status Key for NICCAP2 Action Progress

RAG Status Key	Description
	The action was fully achieved within the NICCAP2 lifespan.
	The action showed a good level of progression, in line with expectations, but will require delivery into the next adaptation programme.
	The action was progressed, but not sufficiently to meet expectations. Further work is required to improve delivery progress.
	No progress was made against the action, or the action has been stopped.

End of Programme Reporting on Progress

The Climate Change Act 2008 requires that each NICCAP contains an assessment of the progress made towards implementing the objectives, proposals and policies set out in earlier programmes.

In line with this requirement NICCAP3 will contain an overview assessment covering each of the key areas and the progress made by the actions put forward under these. The following chapters will provide the same overview of progress, supplemented with a detailed update on each action as well as a RAG status (Red Amber Green) to indicate how much progress has been made. The key for the RAG status used can be seen in figure 2.

Climate Action from Across Society

Recognising the valuable role that stakeholders from across civil society have to play, DAERA via the Climate NI Project engaged stakeholders from across academia, the community and voluntary sectors, private sector and Local Governments to put forward actions for inclusion in NICCAP2. This assessment includes these actions under each of the following chapters on the Key Areas.



CHAPTER 1: Natural Capital, including Terrestrial Coastal/Marine/ Freshwater ecosystems, Soils and Biodiversity

Action under this Key Area was taken forward under the following Outcome Objectives within NICCAP2:

- NC1: We will have species, habitats and water bodies that are resilient to the impacts of climate change.
- NC2: We have coastal communities, habitats, landforms and infrastructure that are resilient to the impacts of climate change.
- NC3: We have soils and woodland that are resilient to the impacts of climate change.

In total, 70 actions were put forward for this Key Area throughout the lifetime of NICCAP2. Of those 70 actions, 64 showed significant progress made against them by the end of the Programme. In more detail the 70 can be broken down as:

- 43 actions were fully achieved;
- 21 actions were showing a good level of progression but will require delivery into the next programme;
- 3 actions were progressed but not as far as expected with further work required;
- 3 actions had no, or insufficient progress made against them.

The following tables provide further detail on the individual actions within the Natural Capital Key Area, and the progress made in delivering each of them by the end of the Programme.

Central Government, Arm's Length Bodies, and Non-Departmental Public Bodies NICCAP2 Actions

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
Outcome Objective NC1: We have species, habitats and water bodies that are resilient to the impacts of climate change.					
NE1 NE2	Produce conservation management plans for 95% of Special Areas of Conservation in: 1. Terrestrial European Protected Sites. 2. Marine European Protected sites.	DAERA	By end of 2020		40 CMPs were published on the DAERA website as StoryMaps by 31st March 2024. 44 SAC habitat maps were published on DAERA's InfoHub by 31st March 2024 and are accessible by DAERA staff.
NE1	DAERA as a Statutory Consultee will advise Local Planning Authorities and DfI about Habitat Regulations Assessment and Strategic Environmental Assessment requirements for new Local Development Plans.	DAERA	By end of 2020		DAERA have provided responses and advice to councils on each stage of LDP process and attended independent examination when appropriate. Four draft Plan Strategies (dPS) have been adopted (Belfast, Fermanagh and Omagh, Lisburn and Castlereagh, and Mid and East Antrim). We continue to engage with these councils as they move to the next stage (Local Policies Plan). The other councils are at various stages of the process, and we continue to engage and provide advice. Four councils have yet to produce their dPS and we continue to provide advice as these progress e.g. on topic reviews and confidential policies. All consultation responses have issued within the agreed timeframes.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
NE1	Produce and implement management plans for Marine Protected Areas.	DAERA	By end of 2021		<p>The management plans were produced by AFBI in January and February 2023 and submitted to the Department -</p> <ul style="list-style-type: none"> • two regional plans: <ul style="list-style-type: none"> - Co Down/Co Lough and North Channel/North Coast; and • two site specific plans: <ul style="list-style-type: none"> - Murlough SAC and Carlingford SPA. <p>https://mpa-management.eu/?page_id=856</p> <p>An updated management plan for Strangford Lough MPA has been submitted to the Department by the Strangford Lough and Lecale Partnership/Newry Mourne and Down Council.</p> <p>The Department is reviewing the management plans to assess the feasibility of proposed management measures and prioritise actions. The adopted plans will be published on the DAERA website.</p>
NE1 NE2	Review Priority Species List and provide advice.	DAERA	Ongoing		<p>This has been progressed in three tranches - Tranche 1 published Feb 2023, total number of listed species standing at 592.</p> <p>https://www.daera-ni.gov.uk/publications/list-northern-ireland-priority-species-2023</p> <p>Tranche 2 was presented to CNCC in June 2024 and awaits endorsement before seeking Ministers' approval for publication. Tranche 3 is currently at the data gathering and verification stage and contains a small number of difficult species groups for which there is limited expertise to review.</p>

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
NE1 NE2	Undertake legislative changes to Wildlife Order (Northern Ireland) 1985 in relation to a review of priority species.	DAERA	By end of 2019		This is dependent pending review of action above.
NE6	Deliver 136 measures in River Basin Management Plans by 2021 to contribute towards the target of up to 70% of water bodies (Rivers, lakes, transitional, coastal and groundwater) at 'good' status according to Water Framework Directive requirements.	DAERA	By end of 2021		<p>The number of surface water bodies being at good ecological status is stagnating. This is due to pressures continuing to act upon the water environment and suggests incomplete implementation of measures. The main pressures are excess nutrients and are related to agricultural land use and sewage infrastructure. Hence, the objective to have 70% of waterbodies being at good status in 2021 has not been achieved.</p> <p>Urgent, substantial and holistic actions are required to achieve the objectives outlined in the draft 3rd cycle River Basin Management Plan (RBMP) and its Programme of Measures. However, as the assessment for Lough Neagh has shown, this is going to exceed the timeframe of the 3rd river basin management plan (2021-2027).</p>

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
NE7	Creation of riverine riparian native tree planting areas where river habitat enhancement schemes are carried out by Inland Fisheries.	DAERA	Future areas for planting will be identified in 2019/20. Business plans subject to resources being in place and the necessary landowner permissions.		In excess of 27,0000 trees were planted across a number of river catchments in the LA area during 2020 and 2023. There were no opportunities across the IF habitat enhancement schemes completed for this period as the projects focused on in river works.
NE13	Deliver the Collaborative Oceanography and Monitoring for Protected Areas and Species (COMPASS INTERREG VA project).	AFBI/DAERA	The COMPASS project has been initiated and will be complete in March 2022.		COMPASS Programme completed. https://compass-oceanscience.eu/reports-and-posters/

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
NE9	Carry out fish stock assessment work to capture changes to marine vertebrates including commercial species and the economic consequences of such changes.	DAERA	Ongoing - Stock assessments completed on an annual basis.		Annual assessments of inshore fish stocks now take place as well as the quota species stocks assessed annually by ICES.
NE9	Continue to update the NI Plant Health Risk Register and implement contingency plans as necessary. Update will include any changes to the plant health risk (pests and pathogens) which may be contributed to by the impact of Climate Change.	DAERA	The NI Plant Health Risk Register updated monthly and published on the web.		Attendance at UK PH Risk meetings updates DAERA and AFBI on new and emerging risks and shares Pest Risk Analysis. This enables AFBI to update the DAERA Plant Health Risk Register. In the past year the focus has been on the top 5 risks likely to impact on NI plant health - this also includes a consideration of the impact of climate change.
NE6	Publish the Water Resource and Supply Resilience Plan.	NI Water Ltd/ DfI	By March 2020		Complete. The plan was published June 2020.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
NE1	Complete 23 catchment studies as part of the Sustainable Catchment Area Management Planning Northern Ireland (SCaMP NI) project.	NI Water Ltd/ DfI	By end of 2021		The action was fully achieved within the NICCAP2 lifespan. All 23 Catchment Studies are complete. The 2023 Catchment Study recommendations will contribute to the SCaMP NI PC27 Work Programme.
NE7	Investigate the possibility of securing baseline stock level data for climate change susceptible lake freshwater fish species, accounting for other short-term causes of variation.	DAERA	Continue with current annual assessment of stock and recruitment for pollan in 2019 on Lough Neagh.		2022 & 2023 lake surveys for Pollan completed. Baseline data on Larval abundance and Pre-spawning stock was also completed for 2022 & 2023. Commercial fishery dealer returns will provide further supporting data to DAERA on catches. These surveys are carried out annually as part of the Marine and Fisheries Division (MFD) AWP work.
NE6	Review NI Water Ltd Abstraction licences on water bodies with potential seasonal vulnerability to water resource availability.	DAERA	Ongoing - Stock assessments completed on an annual basis.		Due to resource and workload pressures, there has been limited progress. Four licenses have been reviewed. Action to restart the Working Group is ongoing but this Group has yet to be established. Actions are required to progress abstraction flow monitoring plan. Input has been provided on drought contingency plans as part of the Water Resource Resilience Plan.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
NE1	Engage with councils to assist them in bringing forward Local Development Plan policies and proposals that take account of climate change adaptation considerations in accordance with the provisions of the Strategic Planning Policy Statement and any other policies or advice in guidance issued by DfI.	DfI- Planning	Ongoing - In accordance with Council Local Development Plan timetables.		The Department has recently issued directions to Antrim and Newtownabbey Borough Council (ANBC) & Derry City and Strabane District Council Draft Plan Strategy (DCSDC) having recently considered the Planning Appeals Commission (PAC) Independent Examination (IE) Report to adopt their draft Plan Strategies with modifications. Furthermore, the submission of Mid Ulster District Council's draft Plan strategy submission remains under consideration prior to 'causing an IE'. The Department continues to liaise with the four remaining Councils yet to publish Development Plan Documents and provides advice on draft plan policy formulation in relation to climate change and climate adaptation and mitigation as and when necessary. The Department will support Councils with adopted Plan Strategies as they work towards their Local Policies Plan preparation to ensure that policies and proposals take account of the effects of Climate Change and are formulated in accordance with the provisions of the SPPS and other relevant guidance issued by the Department.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
NE1 NE2	Implement the All-Ireland Pollinator Plan 2015 - 2020.	DAERA	Ongoing - In accordance with Local Council Development Plan timetables.		<p>All-Island Pollinator Plan (AIPP) 2015-2020 completed, progress published in Working Together for Biodiversity; https://pollinators.ie/wp-content/uploads/2021/02/AIPP-Working-Together-for-Biodiversity-2015-2020-WEB.pdf</p> <p>AIPP 2021-2025 increased to 186 actions with 6 key objectives to make public, private and farm-land pollinator friendly, develop a Honeybee Strategy, and conserve rare bees with a strategic coordination element.</p> <p>https://pollinators.ie/wp-content/uploads/2021/03/FINAL-All-Ireland-Pollinator-Plan-2021-2025-WEB.pdf</p>
PB13	EU INTERREG SWIM Project. To develop a System for Bathing Water Quality Monitoring to predict poor bathing water quality events associated with rainfall. This is to inform bathers prior to swimming.	AFBI/DAERA	By end of 2020		SWIM complete. Legacy Project continues. Predictions available for 6 bathing waters.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
NE14	INTERREG IVB Atlantic Area Platform for Geohazard Management (AGEO) project to establish a Citizens' Observatory to monitor and assess the risk from geological hazards in response to climate change at the Giant's Causeway and Carrick-a-rede.	GSNI (DfE)	End 2022		This action was fully achieved with the completion of the AGEO project in June 2023. Follow on work is planned however building upon the success and lessons learned within the project including the development of a geological hazards work programme within the GSNI.
NE1	Assessing peat slide risk as part of the Planning Process.	GSNI (DfE)	April 2023 (Comm date: Sept 2021)		Progress has been made with workshops delivered for planners and developers on how to produce Peat Slide Risk Assessments and a draft version of standing advice for planners has been produced but not finalised. More work is planned for the next adaptation programme including a peat slide susceptibility map to inform planning decisions and a full revision of guidance for developments in areas of peat slide risk.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
Outcome Objective NC2: We have coastal communities, habitats, landforms and infrastructure that are resilient to the impacts of climate change.					
NE12	Provide a baseline study and gap analysis of coastal erosion risk management in NI.	DAERA/ DfI	By end of 2020		<p>DAERA:</p> <p>The Coastal Forum and the Coastal Forum Working Group is ongoing. Since initiation it has been co-chaired by the DAERA and DfI Ministers, or in the absence of Ministers it has been co-chaired by DAERA and DfI officials. The associated work programme is progressing and significant evidence gathering has been undertaken by DAERA since 2021, with all data now available on the NI Coastal Observatory.</p> <p>There have been two policy workshops to explore potential options for future policy and legislation relating to coastal change risk management.</p> <p>DfI:</p> <p>A Baseline Study and Gap Analysis of Coastal Erosion Risk Management was published in January 2019. Following publication of this report the Northern Ireland Coastal Forum was reconvened, and a work programme was developed that would implement the recommendations of the baseline and gap analysis study. This work programme has now been agreed by Ministers and details therein form part of the next Action Plan.</p>

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
IN3	Carry out surveys along the coastline to assess the impact of coastal erosion on sea walls and verges adjacent to the carriageway.	DfI	By end of 2019		Coastal routes are inspected as part of the DfI routine road network inspections. Particular attention is given to sea walls and verges on roads along known higher risk stretches of coastline. DAERA and DfI are members of the Coastal Forum and work is ongoing to complete LIDAR surveys of the Northern Ireland coastline.
PB6	Contribute to UK-wide project - 'Coastal Flood Boundary Conditions for the UK Mainland and Islands - 2016 Update' which will include the updating of coastal extreme boundary conditions for the NI coastline.	DfI	By end of 2019		Action complete as noted in Year 1 update. UK CFB group next met in Nov 23 after Feb 22 meeting. DfI will continue to participate.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
IN3 PB6	Engage with councils to assist them in bringing forward Local Development Plan policies and proposals that take account of climate change adaptation considerations in accordance with the provisions of the Strategic Planning Policy Statement and any other policies or advice in guidance issued by DfI.	DfI Planning	Ongoing – In accordance with Council Local Development Plan timetables.		The Department has recently issued directions to Antrim and Newtownabbey Borough Council (ANBC) & Derry City and Strabane District Council Draft Plan Strategy (DCSDC) having recently considered the Planning Appeals Commission (PAC) Independent Examination (IE) Report to adopt their draft Plan Strategies with modifications. Furthermore, the submission of Mid Ulster District Council's draft Plan strategy submission remains under consideration prior to 'causing an IE'. The Department continues to liaise with the four remaining Councils yet to publish Development Plan Documents and provides advice on draft plan policy formulation in relation to climate change and climate adaptation and mitigation as and when necessary. The Department will support Councils with adopted Plan Strategies as they work towards their Local Policies Plan preparation to ensure that policies and proposals take account of the effects of Climate Change and are formulated in accordance with the provisions of the SPPS and other relevant guidance issued by the Department.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
PB6	Implement the Flood Risk Management Plans for NI.	DfI	Ongoing		August 2024: Work continues across the DfI responsible authorities in implementing NI's 2nd Cycle Flood Risk Management Plan 2021-2027 (FRMP2) measures and objectives. In accordance with the legislation, progress is reported annually to senior management. Nearing the FRMP2 halfway point, progress has been satisfactory within both the resource available to the responsible authorities and any review actions necessary post major flood events i.e. 2023 South East Flooding. FRMP2 implementation will continue into NICCAP3.
PB6	Introduce the updated Technical Flood Risk Guidance in relation to Allowances for Climate Change allowances for climate change in design of river and drainage infrastructure and advice on flood risk provided for development planning.	DfI	By end of 2019		August 2024: Action completed in February 2019. Work now ongoing to update guidance for UKCP18.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
PB6	Consider implications of the UK Climate Projections 2018 project outputs for drainage and flood risk management.	DfI	By end of 2024		August 2024: WDPD work ongoing to update NI guidance on allowances for Climate Change in Flood Risk Management and Development Planning and Management is scheduled for completion by the end of 2024.
NE12 IN3 PB6	In accordance with the UK Marine Policy Statement and Marine Plan for NI (once adopted) all public authorities must consider the potential impact of proposals on greenhouse gas emissions and the proposals' ability to adapt to a changing climate.	DAERA	Ongoing		DAERA continues to advise public authorities regarding their responsibilities for climate change mitigation, adaption and resilience (under the UK Marine Policy Statement and draft Marine Plan for Northern Ireland) with regard to decision making (including plans, policies, activities, development and licensing) which may affect any part of Northern Ireland's inshore and offshore marine area (including estuaries and rivers as far as the tide flows at Mean High Water Spring Tides). Much of this advice to public authorities is provided by DAERA in its role as a consultee, including for planning applications, the Local Development Plans of councils and the SEAs, SAs, HRAs, etc. produced by public authorities in their decision-making capacity. The requirements of the Climate Change Act (Northern Ireland) 2022 have been incorporated into the post-consultation modified Marine Plan for Northern Ireland which will become a key marine policy document for decision makers once it is finalised and adopted; until that point the Draft Marine Plan for Northern Ireland remains the marine plan to be used by decision makers.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
NE12	The INTERREG VA MarPAMM project will undertake coastal processes assessments with Murlough special area of conservation and adjoining coastal areas which will examine future scenarios and model future shoreline behaviour in the context of projected climate and sea level changes.	AFBI /DAERA	By end of 2022		Completed. For information see: https://mpa-management.eu/
NE12 IN3 PB6 NE10	Research into the impacts of climate change on geological tourist sites and their adaptive capacity to reduce these.	GSNI (DfE)	End 2023		Good progress has been made on this aspect but further delivery will be required into the next adaptation programme including the CVI assessment for the Giant's Causeway as well as awareness raising of climate change impacts on natural tourist attractions within both local and central government.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
NE12 IN3 PB6 BU2	Assessment of coastal vulnerability to erosion around Northern Ireland to assist planners and developers in assessing risk. To be carried out in conjunction with the NI Coastal Forum working group.	GSNI (DfE)	End 2024		Progress has been made through the lifecycle of this NICCAP 2 programme. GSNI have actively participated in the Coastal Forum Working Group. GSNI through DAERA funding have extended its onshore bedrock and superficial deposits maps into the offshore area (-10m SL). GSNI have also taken an active role in development of a submission for SEUPB Peace Plus Theme 5.
NE12	NI 3D Coastal Survey which will provide a high resolution baseline survey covering the full extent of the NI coast. The survey will include a topographic LiDAR survey and orthophotography of the intertidal area extending 200m inland (including the full extent of dune systems and coastal ASSIs),	DAERA/DfI	End 2021		Coastal evidence gathering continues to build on the baseline survey in order to ascertain how the coastline is changing. The Nearshore Seabed Mapping project was commissioned in 2023 to obtain high resolution bathymetric LiDAR of the nearshore shore. This project is still ongoing but once complete it will enable hydrodynamic modelling of the nearshore area, allowing identification of vulnerable coastal areas most likely to be impacted by climate change. A repeat topographic LiDAR survey of the coast was commissioned in 2024 to identify how the coast has changed since the baseline survey in 2021. This project is ongoing.

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	satellite-derived bathymetry of the marine environment to a depth of 10m and a pilot bathymetric LiDAR survey of a marine section along the east coast.				<p>Several other projects have been completed which were undertaken by Ulster University. A north coast beach monitoring project looking at change along 5 sedimentary beaches over the past 16 years on a monthly basis was completed in 2024. The Coastal Change Info Tool, also completed in 2024, provides an initial geomorphological analysis of all geospatial evidence collected since 2021.</p> <p>All coastal evidence is now accessible on the Northern Ireland Coastal Observatory which was launched by DAERA in 2023. All datasets are collated on this platform, they can be viewed and analysed, and the derived products are accessible for further use by stakeholders. Phase 1 of the Coastal Observatory is complete and DSD are progressing with the business case for Phase 2 which will continue to develop this platform, increase functionality, expand on datasets and enable further analysis of data collected. Budget permitting, this work will be ongoing.</p>

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
Outcome Objective NC3: We have soils and land types that are resilient to the impacts of climate change.					
NE4 NE5	Implement the Environmental Farming Scheme as part of the NI Rural Development Programme.	DAERA	By end of 2020		A sixth and seventh issue of EFS agreements occurred in 2023 and 2024 bringing the total number of agreements to over 6,200 since 2018 (4,426 EFS Wider Agreements and 1,852 EFS Higher Agreements). Whilst Tranche 6 included both Higher and Wider, Tranche 7 was offered for Higher land only. Across both Higher and Wider EFS there have been 1000km of hedgerows planted or enhanced, 2,700km of waterways protected and over half a million trees planted by scheme participants since 2018. Currently, in EFS Higher over 58,000 Ha of priority habitat are under favourable management (Tranches 3-7), of which almost half is moorland. Tranche 8 of EFS Higher, expected to be the final Tranche, is currently underway with agreements to commence in January 2025. Development of a Farming with Nature package and work on developing the policy for this package is currently progressing. This will provide a successor programme for EFS.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
NE5	DAERA as a Statutory Consultee will advise Local Planning Authorities and DfI about Habitat Regulations Assessment and Strategic Environmental Assessment requirements for new Local Development Plans.	DAERA	By end of 2019		DAERA have provided responses and advice to councils on each stage of LDP process including their Sustainability Appraisals incorporating SEA.
NE8	Maintain an emergency Forest Service fire plan and monitor and report the extent of fire damage to forest and open ground (hectares) on Forest Service managed property annually.	DAERA	Ongoing - In accordance with Local Council Development Plan timetables.		The annual implementation of the Forest Service Emergency Fire Plan is normal business. The Plan is activated during period of high risk of forest fires normally the period March to June.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
NE5 NE8	Encourage creation of new resilient woodland (hectares) through the Forest Expansion Scheme by favouring projects with a wider variety of tree species and larger woodland areas to enhance ability of individual species to endure climate change.	DAERA	Ongoing - Reported annually in July for the proceeding financial year.		The Forests for Our Future Programme, to the end of 2023/24 has delivered 1,760 hectares of new well designed resilient woodland. Of this, forestry grant schemes supported 1,692 hectares and Forest Service planted 68 hectares of new sustainable woodland on DAERA managed land. Further increases in the rate of afforestation are required to meet the forests for our future programme target of 9,000 hectares by 2030.
NE3 NE4	Complete 23 catchment studies as part of the Sustainable Catchment Area Management Planning Northern Ireland (SCaMP NI) project.	NI Water Ltd	By end of 2021		The action was fully achieved within the NICCAP2 lifespan. All 23 Catchment Studies are complete. The 2023 Catchment Study recommendations will contribute to the SCaMP NI PC27 Work Programme.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
NE8	Engage with councils to assist them in bringing forward Local Development Plan policies and proposals that take account of climate change adaptation considerations in accordance with the provisions of the Strategic Planning Policy Statement and any other policies or advice in guidance issued by DfI.	DfI Planning	Ongoing - In accordance with Council Local Development Plan timetables		The Department has recently issued directions to Antrim and Newtownabbey Borough Council (ANBC) & Derry City and Strabane District Council Draft Plan Strategy (DCSDC) having recently considered the Planning Appeals Commission (PAC) Independent Examination (IE) Report to adopt their draft Plan Strategies with modifications. Furthermore, the submission of Mid Ulster District Council's draft Plan strategy submission remains under consideration prior to 'causing an IE'. The Department continues to liaise with the four remaining Councils yet to publish Development Plan Documents and provides advice on draft plan policy formulation in relation to climate change and climate adaptation and mitigation as and when necessary. The Department will support Councils with adopted Plan Strategies as they work towards their Local Policies Plan preparation to ensure that policies and proposals take account of the effects of Climate Change and are formulated in accordance with the provisions of the SPPS and other relevant guidance issued by the Department.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
NE10	Engage with stakeholders to explore potential to develop a strategy to manage, prioritise and coordinate intervention, prevention and response measures for wildfires.	DAERA	Ongoing		<p>A Northern Ireland Strategic Wildfire Group was established and a NI Wildfire Stakeholder Forum established. Wildfires have been added onto the National Risk Register.</p> <p>Draft Wildfire Strategy issued for public consultation; final version has been agreed by Strategic Wildfire Group (it now requires Ministerial / Executive approval). Draft action plan for Strategy is in development.</p> <p>Wildfire ATVs located at strategic locations across N. Ireland ready for immediate wildfire response. Interagency (NIEA, NIFRS and PSNI) training on the use of the vehicles at wildfire incidents. Ongoing annual familiarisation training across the agencies and stakeholders. Review of Eastern Mournes Wildfire Project completed by NI Water.</p>
NE5	Develop a new Peatlands Strategy for Northern Ireland and associated implementation Plan to drive forward the restoration of and protection of peatlands.	DAERA	By end of 2022 (implementation plan Mar 2023)		<p>Progress against this action has shown a good level of progression. The EQIA consultation was completed in 2022 and the NI Peatland Strategy has been revised. Publication of the Strategy and development of an Implementation Plan will be completed in the next adaptation programme.</p>

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
NE10	INTERREG IVB Atlantic Area Platform for Geohazard Management (AGEO) project to establish a Citizens' Observatory to monitor and assess the risk from geological hazards in response to climate change at the Giant's Causeway and Carrick-a-rede.	GSNI (DfE)	End 2022		This action was fully achieved with the completion of the AGEO project in June 2023. Follow on work is planned however building upon the success and lessons learned within the project including the development of a geological hazards work programme within the GSNI.
NE5	DAERA as the Consultation Body under The Environmental Assessment of Plans and Programmes Regulations (NI) 2004 will respond to all SEA related consultations within the legislative and agreed timeframes.	DAERA	Ongoing		NED have responded to all SEA related consultations within the statutory timeframes.

Academia, Civil Society, Private Sector, Non-Government Organisations and Local Government NICCAP2 Actions

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
Outcome Objective NC1: We have species, habitats and water bodies that are resilient to the impacts of climate change.					
NE13	Research Project: Maritime, Ocean Sector and Ecosystem Sustainability (MOSES) Develop a common methodology for the quantitative assessment of sectoral pressures on the marine environment and the vulnerability of marine and coastal areas.	Dr Wesley Flannery, Queen's University Belfast	Project complete		This research project is now complete. It assessed the vulnerability of coastal areas to sectoral pressures from maritime-related socio-economic activities. The various tools have been developed and will be implemented in case study sites between 2024 and 2025. There is no case study site in Northern Ireland; there is a case study site in the Celtic Sea.
NE9	Research Project: Mitigating Animal Health Impacts of Climatic Variation Improve upon methods of forecasting parasite transmission from weather data.	Professor Eric Morgan, Queen's University Belfast	Ongoing		Models have been developed for predicting and adapting to impacts of climate change on parasite transition and control at farm level. The models were fully realised in the previous model period but application by farm advisors has been limited by lack of translation into accessible decision support tools. This was not a stated aim of the action since it goes beyond the research and impact projects that funded the work. Activity in 2022-24 sought to support wider application of the models and their outputs at NI level. This progress was accelerated by new UKRI (BBSRC COADAPT project) and EU (Thematic Network SPARC) funding and we anticipate accessible online decision support tools to be launched in 2025.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
NE11	Research Project: SALine INtrusion in coastal Aquifers: Hydrodynamic Assessment and Prediction of Dynamic Response (SALINA) Produce an early warning mechanism to prevent salt water from contaminating coastal aquifers and provide evidence of how (and if) risks are changing.	Dr Raymond Flynn, Queen's University Belfast	Project complete		This project is complete; it successfully employed geophysical tools to detect the imminent arrival of sea water into coastal groundwater supplies. A subsequent research application is in development. Details here: https://www.qub.ac.uk/schools/NBE/Research/research-projects/SALINA-SALineINtrusionincoastalAquifers/
NE1	Research Project: Towards Quantification of Blanket Bog Ecosystem Services to Water (QUBBES) Identify links between vegetation maps and hydrological processes to allow critical source areas in blanket bogs to be identified where restoration measures can be implemented.	Dr Raymond Flynn, Queen's University Belfast	Project complete		This project is now complete; it provided a means of quantifying benefits of intact blanket bogs to the wider environment and society. Details of project here: https://www.epa.ie/publications/research/epa-research-2030-reports/research-378-towards-the-quantification-of-blanket-bog-ecosystem-services-to-water.php

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
NE13	Research Project: Marine Plan	Dr Wesley Flannery, Queen's University Belfast	October 2022 - September 2025		The project is progressing well. The various tools have been developed and will be implemented in case study sites between 2024 and 2025. The project aims to co-develop with stakeholders a Decision Support System (DSS) for ecosystem-based maritime spatial planning (EB-MSP) together with best practice guidance to enhance the effectiveness of spatial conservation and restoration measures for marine biodiversity in European Seas. There is no case study site in Northern Ireland; however there is a case site in the Celtic Sea.
NE1 NE2 NE7 NE9	Practical Project: Ancient Woodland Restoration and New Woodland Creation Create new woodlands, secure, restore and protect existing ancient woodlands.	Woodland Trust Forestry Agents, Landowners, Royal Forestry Society and Local Councils	Ongoing		The 60ha of native woodland creation at Aughrim Hill was completed in 2021 and serves as a carbon sink, supports biodiversity, and offers public access via footpaths. The five-year project at Glas-na-Bradán Wood commenced in 2021 and engages the public in tree planting events to plant over 150,000 trees to create a new native woodland in the Belfast Hills, this project will continue beyond the current adaptation program. The Ancient woodland restoration at Mourne Park, ongoing since 2021, has cleared invasive species from over 39ha of habitat, fostering natural regeneration and supporting resilient woodlands. An additional 32ha of land at Mourne Park was acquired in 2023 will be managed for nature to further support a resilient landscape. In the Faughan Valley, the Woodland Trust's "From Fragments to Thriving Forest" project, completed in the summer 2023, restored ancient woodlands, removed invasive species, and extended habitats through riparian planting, funded by The National Lottery Heritage Fund and DAERA's Rural Development Programme. These efforts contribute to climate adaptation by enhancing carbon storage, biodiversity, and ecological resilience. Whilst two projects have completed, Mourne Park and Glas-na-Bradán Wood will continue beyond the current adaptation programme.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
NE1 NE2 NE14	Strategic Project: Co-operation Across Borders for Biodiversity (CABB) - Develop and publish Conservation Action Plans for Garron Plateau SAC, Montiaghs Moss SAC and the Pettigo Plateau SAC.	RSPB NI BirdWatch Ireland, RSPB Scotland, NI Water, Butterfly Conservation and Moors for the Future	Project complete		The project delivered detailed habitat mapping for the area covered by 8 Conservation Action Plans and delivered CAPs for each of these Natura 2000 sites; 3 in Northern Ireland, 4 in the Republic of Ireland and 1 in Scotland.
NE1 NE2	Practical Project: Collaborative Action for Natura Network (CANN) Improve the condition of peatland and wetland habitats in Special Areas of Conservation.	Ulster Wildlife reporting on behalf of Newry, Mourne and Down District Council	Ongoing to September 2022		Conservation Action Plans developed for each of the target SACs. These provide a roadmap to achieving resiliency and outline the management actions required to ensure that the habitats and species achieve or maintain good ecological condition status.
NE1 NE9 NE13	Strategic Project: Sea Deep and Marine Engagement work Map and monitor intertidal and elasmobranch species to identify current distribution, changes to distribution and potential pressures and threats.	Ulster Wildlife SeaSearchNI and Queen's University Belfast	Ongoing		Ulster Wildlife completed the Sea Deep project in 2023. The project aimed to increase public awareness and collect and submit data records from trained volunteers relating to endangered sharks, skates, and rays and intertidal biodiversity. A total of 15 volunteer anglers trained by the Sea Deep Project have been granted licences, under the Wildlife (Northern Ireland) Order 1985, to tag Common Skate. Trained anglers and 640 individual sharks from 11 species. In total, 129 flapper skate were tagged over the period of June 2018 to June 2022.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
					Seven skate roadshows were held with 300 attendees. Sea Deep led and attended several other events throughout the project to engage the public in local shark and skate conservation work. Specific focus was given to the flapper skate. UW developed a best practice handling and tagging training programme for anglers in Northern Ireland. This included Easter themed eggcase hunts, the Northern Ireland Science Festival and NI's first climate festival.
NE1 NE9 NE13	Strategic Project: NI Marine Task Force (NIMTF) Ensure nature- based solutions are promoted and adopted as key tools in mitigating the effects of, and helping with adaptation to climate change by influencing government and public policy.	Ulster Wildlife National Trust, RSPB, NIEL, Friends of the Earth, WWT, WWF, and Marine Conservation Society, Keep NI Beautiful, and Irish Whale and Dolphin Group.	Ongoing		NIMTF continue to emphasise the importance of protecting the marine environment. NIMTF have developed a marine vision covering action for: <ul style="list-style-type: none"> • Recovering Biodiversity • Sustainable Fisheries • Taking Climate Action • Sustainable development at sea • Empowering Communities NIMTF coordination has led to consultation responses and engagement on the following large pieces: <ul style="list-style-type: none"> - Developing ecosystem-based approaches to FMPs for NI Inshore, Irish Sea Pelagic and Demersal stocks. - Development of SEA components of the overall OREAP. - Highlighting the importance of the marine environment in achieving goals of the Climate Change (NI) Act 2022. - Evidence to the OEP on Pressures and Drivers facing the Marine Environment to achieving GES.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
NE11 NE14	Strategic Project: Shifting Shores - Playing our Part on the Coast Promote partnership working and develop coherent strategies to deal with risks to NI's coastal aquifers, habitats and landscape character.	National Trust Coastal Local Authorities in NI, Ulster University and local community representatives.	Ongoing		The understanding around coastal change continues to grow. The MaRPAMM project at Murlough NNR (led by Ulster University and completed in 2023) modelled the outer bay and coast and will inform future coastal adaptation planning. Building on this work, and supported by the DfC, the National Trust has commissioned Ulster University to undertake NI-wide surveys of coastal vulnerability at the places it looks after. The DAERA Environment Fund is also supporting the National Trust to undertake monitoring work at: Inner Dundrum Bay, monitoring coastal change in the next year to feed into recommendations for managing change in the future; and Cushendun, to understand the coastal processes around the harbour area and model the outcome of possible interventions in the future. Blue carbon habitat assessments at some National Trust sites will also increase coastal resilience and help feed into any future government-led Blue Carbon Strategy.
NE1 NE5 NE8	Practical Project: Breeding Wader Recovery Project Improve the conservation status of breeding waders in three key sites - Antrim Hills, Lough Neagh, Lough Erne.	RSPB NI NIEA, DAERA, farmers and other landowners.	Ongoing		This project continues to progress well with breeding waders (curlew, lapwing, snipe) stabilising/increasing in the project area against 78-89% declines in the wider countryside, using a combination of agri-environment and EU funding (EU-funded Curlew LIFE programme). We have rated it as B as there is more to do. We have concentrated on the urgent need to protect and enhance existing breeding areas, the next step is to make these areas bigger and more connected to grow the population, helping to mitigate against the impact of climate change and deliver more nature-based solutions on a wider scale.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
NE1 NE9	Practical Project: Rathlin Acting for Tomorrow Removing invasive non-native ferrets and rats from the Rathlin Island SPA.	RSPB NI Rathlin Development and Community Association, DAERA, Causeway Coast and Glens Heritage Trust.	Ongoing		At the end of February 2024, the ferret eradication project is progressing well. Over 500 traps have been placed across the entire island with nearly 6 km of safety traverse lines installed on cliffs. A total of 98 ferrets have been captured so far, however a number of ferrets are still active on the island and plans are in place to eradicate the remaining ferrets. Planning is underway for the rat eradication, which will begin in September 2024. Conditions on the island have proven very challenging with significant rainfall and storm events hampering rapid progress or damaging project assets. A number of technical challenges remain but the partnership is working tirelessly to deliver the rat eradication project on time.
NE1 NE4 NE5 NE8 NE12 NE14	Strategic Project: All-Island Climate and Biodiversity Network Multi-disciplinary research network to help address the climate and biodiversity emergencies.	All-Island Climate and Biodiversity Research Network (AICBRN).	Ongoing		In November 2021, the then Taoiseach and deputy First Minister of Northern Ireland successfully launched the AICBRN. The Taoiseach announced the allocation of €160k to support a secretariat function delivered through the National Parks and Wildlife Service in the RoI. A total of €0.5M has been secured through the Irish Government to support the AICBRN secretariat (based at TCD) on an All-Island basis. The AICBRN has driven several initiatives and meetings, including workshops on PeacePlus, delivery of a green paper, applications to the N-S HEA call, and ultimately a submission to the SFI led Co-Centres call for a Co-Centre for Climate + biodiversity + water. This last bid was successful (€42M) and resulted directly from the AICBRN. The network is live and is an ongoing and vibrant entity with monthly members, webinars and seminars, a members'



NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
					meeting exploring Ireland as a living lab for climate and biodiversity change in May 2024, and a range of ongoing activities and actions that are being explored. The Network serves as an important platform for communication of climate and biodiversity related research. Its activities are ongoing despite securing funding; various avenues through PeacePlus are being explored to secure more funding.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
Outcome Objective NC2: We have coastal communities, habitats, landforms and infrastructure that are resilient to the impacts of climate change.					
IN3 PB6	Research Project: UrbanARK: Assessment, Risk Management & Knowledge for Coastal Flood Risk Management in Urban Areas Develop immersive virtual reality applications to enhance emergency management and preparedness of urban communities, including infrastructure assets and networks.	Dr Ulrich Offerdinger, Queen's University Belfast.	Due to Covid-19 impacts the project has been extended from end of 2022 until March 2023.		The project has collected high-resolution mobile LiDAR data for Belfast City Centre as well as parts of the Dublin and New York study areas. Flood model simulations for Belfast City Centre integrating underground spaces as identified in the LiDAR data have been completed. These indicate the impact of the underground spaces on the flood dynamics within the urban environment. Prototype virtual reality tools to communicate flood risks have been developed by NYU and a cloud-based online spatial database platform has been developed to host the large LiDAR data sets to support end-users in employing the high-resolution LiDAR data in their planning and decision-making process without the need for costly hardware procurement. Project findings and tutorial demonstrations have been presented at various stakeholder engagement events and in published scientific papers. A follow-on leveraged project with Belfast City Council Teams explored the use of the collected high-resolution LiDAR data for other Smart City applications and the project has been selected as a flagship example for the US-Ireland Research & Development Partnership Programme.
NE12	Strategic Project: Sea Deep and Marine Engagement work Map and monitor intertidal and elasmobranch species to identify current distribution, changes	Ulster Wildlife SeaSearchNI and Queen's University Belfast.	Ongoing		Ulster Wildlife completed the Sea Deep project in 2023. The project recommended that DAERA support the continuation of the tagging programme as a method for filling data gaps on local elasmobranch species; encourage participants to undertake consistent survey effort and record nil returns. DAERA continues to support engagement between recreational sea-anglers, Ulster Wildlife and universities, particularly to support data analysis; We recommend

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
	in distribution and potential pressures and threats. Raise awareness among coastal and sea-user communities to promote local-level action.				developing the current angler-led conventional tagging programme into a PIT tagging programme for specific elasmobranch species. The baseline data is currently informing the developed of DAERA's elasmobranch strategy.
NE12 PB6	Strategic Project: Shifting Shores - Playing our Part on the Coast Promote partnership working and develop coherent risk management strategies to deal with risks to habitats, heritage, and coastal communities.	National Trust Coastal Local Authorities in NI, Ulster University and local community representatives.	Ongoing		<p>The NI Coastal Forum was re-established in 2019, led by the DfI and DAERA Ministers/Permanent Secretaries, and includes coastal councils and the National Trust. The working group has progressed substantial work to establish baseline coastal data, including LiDAR mapping and the Coastal Observatory. The online observatory is a useful tool for decision making and for communicating coastal issues. However, there remains a need for expert resource to help stakeholders interpret the data. Other key Forum work to develop a coastal policy framework remains in progress and will require ministerial approval.</p> <p>In 2023, the National Trust published a new report, A Climate for Change, setting out its approach to adaptation and what needs to happen next. The hazard mapping for its sites (launched in 2021) has been updated with new layers, helping improve understanding of local vulnerabilities. However, more detailed data is required to fully assess risks in NI.</p>

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
NE1 NE5 NE13	Strategic Project: Getting Northern Ireland 'Restoration Ready' Provide evidence base to identify blue carbon restoration priorities.	Ulster Wildlife National Oceanography Centre University of Hull	December 2020-March 2022		The Restoration Ready Project to provide an evidence base to identify blue carbon restoration priorities is complete and is now being taken to the next level with proof-of-concept sites planned for the Peace Plus Programme.
NE1 NE5 NE13	Practical Project: Restoration of dune habitats at the Umbra Nature Reserve Ensure Magilligan SAC features are in favourable condition and support resilience.	Ulster Wildlife NIEA, Geological Survey Northern Ireland (GSNI), British Geological Survey (BGS)	Ongoing		The Restoration of Dune Habitats at the Umbra Nature Reserve is now complete and on-going management continues.
IN3	Strategic Project: Business Continuity Planning Incorporate projected climate change and information from modelling to into Business Continuity Planning process, risk management strategies, warning and informing system, operational controls and new developments.	Belfast Harbour Commissioners	Ongoing		Identified material risks have been taken forward into the relevant Flood Resilience Plans (ongoing participation in DfI's Belfast Tidal Flood Alleviation Scheme), Business Continuity Plans and Marine Safety Management System. Advanced environmental sensing technology continues to be integrated into the Estate fabric, leveraging our 5G private network capabilities and integration into the ports digital twin.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
Outcome Objective NC3: We have soils and land types that are resilient to the impact of climate change.					
NE3 NE4 NE5 NE8	Research Project: Towards Quantification of Blanket Bog Ecosystem Services to Water (QUBBES) Identify critical source areas in blanket bogs, where land use/ blanket bog restoration measures can be implemented to restore peatlands and limit losses of dissolved (and sequestered) organic carbon.	Dr Raymond Flynn, Queen's University Belfast	Project complete		This project is now complete; it provided a means of quantifying benefits of intact blanket bogs to the wider environment and society. Details of project here: https://www.epa.ie/publications/research/epa-research-2030-reports/research-378-towards-the-quantification-of-blanket-bog-ecosystem-services-to-water.php
NE3 NE4 NE5 NE8	Research Project: Sensor Application to Peatland Hydrology in Remote Environments (SAPHIRE)	Dr Raymond Flynn, Queen's University Belfast	June 2022-June 2025		This project aims to evaluate the utility of sensor networks on peatlands to quantify hydrological processes, including the impacts of projected climate change on peatland hydrology and peatland degradation. Sensors have been developed and are currently applied to the field study area. Sensors are generating satisfactory data despite setbacks related to extreme flooding. Findings anticipated in line with the timeline of the next adaptation programme.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
NE4 NE5 NE8	Research Project: Weathering Below Blanket Bogs Quantify the capacity of blanket bogs to regulate climate.	Dr Raymond Flynn, Queen's University Belfast	Project complete		This project is complete, demonstrating that weathering below blanket peat can provide significant benefits and may impact on greenhouse gas dynamics, depending on rock types weathered. Details here: https://pure.qub.ac.uk/en/studentTheses/weathering-below-irish-blanket-bogs-and-impacts-on-carbon-dynamic
NE4 NE8	Strategic project: Ancient Woodland Restoration and New Woodland Creation Provide advice to landowners on good practices for plantation of new trees, improving conditions of land and soil, and implementation of sustainable management practices.	Woodland Trust Forestry Agents, Landowners, Royal Forestry Society and Local Councils.	Ongoing		<p>The Woodland Trust's Emergency Tree Fund has supported initiatives including the Belfast Tree Strategy to help manage and improve the tree-scape in the city; and Lisburn & Castlereagh's Journey to Sustainability project which to date has planted over 68ha of new woodland, and restored 11ha of ancient woodland.</p> <p>In 2023, the tree nursery at Lisburn & Castlereagh produced over 100,000 locally sourced and grown native trees. These projects support sustainable management practices to improve the condition and extent of woodland. All three projects are ongoing and will continue beyond the current adaptation programme.</p> <p>The Woodland Trust NI engages with landowners, to promote sustainable management practices and support woodland creation/restoration. Partnerships have restored 24ha of ancient woodland at Cultra & Delamont, with another underway at Clandeboye.</p> <p>Additionally, the Trust has supported landowners to plant over 300ha of new native woodland across NI in 2023/24. All woodland is planted to UKFS standard. This work delivers climate objectives whilst also supporting biodiversity. This outreach work is ongoing and will continue beyond the current adaptation programme.</p>

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
NE4 NE5	Practical and Strategic Project: Co-operation Across Borders for Biodiversity (CABB) - Improve the conditions and restore blanket bogs, fens and raised bogs across three sites in NI.	RSPB NI BirdWatch Ireland, RSPB Scotland, NI Water, Butterfly Conservation and Moors for the Future.	Project complete		The project over-delivered against its target for peatland restoration, delivering 3,188ha in recovering condition against the 2,228ha target. Works were done in Ireland, Northern Ireland and in Scotland to deliver 3,188 ha for blanket bog in improving condition. The following shows the delivery at each site: Garron Plateau SAC - 500ha via drain blocking. Muirkirk and North Lowther - 825ha + 48ha + 77ha via reprofiling, ditch blocking, stump flipping and 175ha + 219Ha through Sitka spruce regeneration removal. Dunragh Lough & Pettigo Plateau SAC - 900ha through fencing to facilitate grazing.
NE4 NE5	Practical Project: Collaborative Action for Natura Network (CANN) Co-ordinate and implement targeted soil conservation and peatland restoration.	Ulster Wildlife reporting on behalf of Newry, Mourne and Down District Council	To be complete September 2022.		On ground restoration works on target sites completed. Outstanding outcomes not covered by funding will be progressed through other funding sources such as Environment Fund and Peace Plus.
NE4 NE5	Practical Project: Keeran Moss - Peat Restoration Project	Mid and East Antrim Borough Council and RSPB	January 2022 - 2023		Council was successful in securing funding for Phase 2 of this project, which is now completed; signage just being finalised in February 2024. The site has become an established habitat for a number of species and is starting to flourish and attract new species with vegetation growing over the newly laid stone paths. The site has been primarily restored and maintained for the benefit of the environment, but also good practice example for carbon storage.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
					<p>Work carried out:</p> <ul style="list-style-type: none"> • Large pool • 4 small ponds for newts • Removal and control of invasive conifer, gorse and rush • Ongoing treatment of Japanese knotweed • Hedge laying/restoration to replant the gaps in the roadside hedge with native species and lay existing hedge to provide an effective site barrier and increase biodiversity • Bug hotel installed • Bee bank erected • Bat and bird boxes built • Wildflower meadow sown • Welfare unit, path and benches have been installed and signage will be installed to facilitate educational visits. <p>'Restore, Protect, Promote' have been our key messages. Keeran Moss will become established as an opportunity for our residents to be emersed in nature, to visit a carbon storage site and appreciate the habitat restoration and biodiversity by identifying species themselves on their visit.</p>
NE3 NE10	Practical Project: MEA4Trees - Planting 58,000 trees in Mid and East Antrim Borough Council area.	Mid and East Antrim Borough Council and Woodland Trust	2019 - 2022		Council completed the planting of 58,000 native trees in May 2022. To up-scale this project and to increase tree planting coverage across Council land and stakeholder lands, Council applied for Emergency Tree Funding from the Woodland Trust to secure two 2-year posts 'Woodland Engagement Officer' and 'Trees and Woodland Officer'

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
					posts which would involve better engagement with our schools, community groups and businesses to ramp up tree planting across the borough and to educate these sectors on the benefits of tree planting. This Climate Canopy application was successful and also included working with the Woodland Trust to plant out Council's first Carbon Woodland at Carnfunnock Country Park. Council's Parks & Open Spaces Manager is currently finalising a MEA Tree and Woodland Strategy which will include our vision, over-arching goals and delivery mechanism to plant 400,000 trees over the next 5 years.
NE3 NE10	Strategic Project: Preparation of an iTree Eco Report for Belfast	Belfast City Council Treeconomics	Ongoing		Belfast Tree Strategy was adopted in October 2023. As a result of this work the city has developed a Tree Equity Score to evaluate and identify where trees should be targeted across the city for targeted climate action which was launched early in 2024. The Million Trees programme continues to support delivery of trees in the city through community, statutory and business stakeholder engagement, with current phase of programme ending in May 2024. Evaluation and development of phase 2 is underway with funding being sought currently.
NE3 NE10	Practical Project: Woodland Expansion and Lagan Corridor Project	Lisburn and Castlereagh City Council and Woodland Trust	Ongoing		The Lagan corridor has seen woodland restoration around Glenmore and Aberdelghy wood with an additional 5,000 trees being planted at Blaris Cemetery. A community planting project has commenced at Glenmore which will result in approximately 1,600 native trees being planted in an area adjacent to a site of Semi-Natural Ancient Woodland. 67,018 trees were planted in LCCC between November 2022 and December 2023. Approximately 75,000 trees of 15

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
					native species were propagated at the council's IUKSG certified nursery for planting in winter 23/24. Eight new beds have been installed and planted to boost production numbers and achieve a target of 150,000 trees being propagated per year. A further site has been identified for field grown trees for the Spring 2024 sowing season. A tree giveaway project commenced in 2024 with native trees being given to residents at giveaway events to be planted across the Lisburn & Castlereagh City Council area.



CHAPTER 2: Infrastructure Services

Action under this Key Area was taken forward under the following Outcome Objective within NICCAP2:

- IF1: We will have Transport & Network Services that are resilient to the impacts of flooding & extreme weather.

In total, 16 actions were put forward for this Key Area throughout the lifetime of NICCAP2. Of those 16 actions, 15 showed significant progress made against them by the end of the Programme. In more detail the 16 can be broken down as:

- 8 actions were fully achieved;
- 7 actions showed a good level of progression but will require delivery into the next programme;
- 1 action was progressed but not as far as expected with further work required.

The following tables provide further detail on the individual actions within the Infrastructure Key Area, and the progress made in delivering each of them by the end of the Programme.

Central Government, Arm's Length Bodies, and Non-Departmental Public Bodies NICCAP2 Actions

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
Outcome Objective IF1: We have transport & network services that are resilient to the impacts of flooding and extreme weather.					
IN1 IN9	Publish the Water Resource and Supply Resilience Plan.	NI Water Ltd/ DfI	By March 2020		The Plan was published in June 2020.
IN4	Remove properties from the 'Out of Sewer Flooding Register'.	NI Water Ltd/ DfI	By end of 2021		Ravenhill Avene Project was completed in December 2023. The project reduced out of sewer flooding removing almost 9 hectares of impermeable area from the combined sewer network. Completion of this project enabled 11 properties to be removed from NI Water's internal Flooding Register. NI Water proposes to remove a total of 57 properties from the internal Flooding register by the end of the PC21 Price Control period (2021 - 2027) - subject to funding.
IN4	Increase the number of Sustainable Drainage Systems (SuDS) introduced in new developments.	NI Water Ltd/ DfI	By end of 2024		The Subgroup of the SMG is continuing to identify the role of a SuDS Approval Body and to consider if such a body is required in Northern Ireland. The Water Flooding and Sustainable Drainage policy was passed by the Executive in September 2024.
IN1 IN2 IN5	Risks to bridges and pipelines from high river flows & bank erosion- monitor, inspect and maintain road and rail/ bridge network and implement action plans.	DfI & Translink	Ongoing		DfI continues to deliver on its programme of structural inspections as an on-going requirement in line with Design Manual for Roads and Bridges requirements. Translink is currently undertaking a programme of scour risk assessments of bridges and culverts in accordance with Network Rail/NIR policy requirements and regularly complete asset inspections following flash flood/intensive rainfall events. Translink also delivers an annual programme of structural inspections and maintenance programmes in accordance with policy.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
NE3 NE4	Future bridge design will take into account climate change.	DfI & Translink	Ongoing		Action identified as complete in 2021; however, DfI continues to be represented on Technical Standards Committees normally led by National Highways, responsible for the ongoing review of national DMRB standards.
IN1 IN2 IN6	Risks to transport networks from slope & embankment failure - Continue geotechnical inspection regime for road and rail embankments and prioritise actions.	DfI & Translink	Ongoing		In conjunction with QUB, DfI has developed a geotechnical asset risk assessment model. Strategic level risk assessments have been carried out on all identified trunk roads sites (slopes over 10m), in compliance with the Department's limited adoption of CS 641.
IN2 IN4	Engage with councils to assist them in bringing forward Local Development Plan policies and proposals that take account of climate change adaptation considerations in accordance with the provisions of the Strategic Planning Policy Statement and any other policies or advice in guidance issued by DfI.	DfI Planning	Ongoing - In accordance with Council Local Development Plan timetables.		The Department has recently issued directions to Antrim and Newtownabbey Borough Council (ANBC) & Derry City and Strabane District Council Draft Plan Strategy (DCSDC) having recently considered the Planning Appeals Commission (PAC) Independent Examination (IE) Report to adopt their draft Plan Strategies with modifications. Furthermore, the submission of Mid Ulster District Council's draft Plan strategy submission remains under consideration prior to 'causing an IE'. The Department continues to liaise with the four remaining Councils yet to publish Development Plan Documents and provides advice on draft plan policy formulation in relation to climate change and climate adaptation and mitigation as and when necessary. The Department will support Councils with adopted Plan Strategies as they work towards their Local Policies Plan preparation to ensure that policies and proposals take

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
					account of the effects of Climate Change and are formulated in accordance with the provisions of the SPPS and other relevant guidance issued by the Department.
IN1 IN2 IN4 IN5 IN6	Provide input to review and update of the 'Design Manual for Roads and Bridges' which will include addressing climate change adaptation.	Dfl	By end of 2020		Action identified as complete in 2021, however Dfl continues to be represented on Technical Standards Committees, responsible for the ongoing review of national DMRB standards.
IN11	Carry out a detailed tree survey which will examine the risk of tree related incidents due to high wind events.	Translink/Dfl	By end of 2020		Work commissioned in September 2021 and survey work is ongoing and showing reasonable progress. When the reports are available Dfl will be in a position to determine the appropriate long-term strategy to manage this risk.
IN13	Carry out a project to update the Stress Free Temperatures records of its rails to identify locations that could be at risk during extreme heat.	Translink/Dfl	By end of 2020		The stress-free temperature review of the rail network was completed in December 2020 in line with the NICCAP2 Implementation Timeline. The recommendations from the review are being taken forward as part of the "business as usual" maintenance and renewal of the rail network.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
IN5 IN11 IN13	Research to increase knowledge, awareness and use of local carbon Earth energy resources and the potential for geological storage of energy and carbon, thus ensuring energy security and minimising risk for businesses.	GSNI (DfE)	Ongoing		<p>Collaborative research on geothermal involving 1 x PhD at QUB and 1 x PhD at UCD. GSNI continued research contribution to EPSRC funded project on Aquifer Thermal Energy Storage for Heating and Cooling (ATESHAC project). GSNI continuing to provide scientific support to Energy Group in DfE on geothermal demonstrator project GeoEnergyNI and other DfE funded research projects on geothermal covering geophysical exploration and geothermal heat modelling. GSNI acting as project partner on SFI and IRC funded project (MOD3LTHERM) producing an all island model of thermal structure. Contribution to research articles on geothermal and energy storage.</p> <p>https://www.earthdoc.org/content/journals/10.3997/1365-2397.fb2023009#abstract_content</p> <p>https://www.earthdoc.org/content/journals/10.1144/geoenergy2023-042</p>

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
IN9 PB14 BU3	Research to better understand NI's groundwater resources, allowing decisions to be made more accurately about when and where groundwater could be used for low energy water supply, shallow geothermal heating and cooling, and energy storage.	GSNI (DfE)	Ongoing		Further work will be required into the next adaptation programme to improve delivery progress. Whilst groundwater options have been included within the latest draft Water Resource and Supply Resilience Plan, the ongoing work has identified that realising the benefits of using groundwater for public supply requires extensive investment in groundwater exploration to develop ideas up to a level where they can be more confidentially costed up and assessed. The Groundwater Resources Research and development platform was put on hold and not published in an effort to ensure it is effective at meeting it's aims. Therefore, uptake of research into groundwater has been slow with the sustainability benefits of using groundwater not being fully realised.

Academia, Civil Society, Private Sector, Non-Government Organisations and Local Government NICCAP2 Actions.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
Outcome Objective IF1: We have transport & network services that are resilient to the impacts of flooding and extreme weather.					
IN5 IN6	Research project: Investigating the impact of flooding on the stability of small single and multi-span masonry arch bridges Quantify climate change impacts, including projected increases in heavier and more frequent rainfall events and bridge scour risk.	Dr Brian Solan, Ulster University	The project is complete with the Royal Society and a final report was submitted.		This project aims to investigate the impact of flooding on the stability of small single and multi-span masonry arch bridges. Ulster University remains committed to research in this critical area of asset management and plan to start testing soon now that the move to the new campus is complete. The change of location has warranted some amendments to the existing test apparatus. Once these changes are complete, the exploration of the impact of drowned arches on shallow footing will recommence, given the implications of the current climate change emergency and the need to address the UN Sustainability goals.
IN11 IN13	Strategic Project: Safety and Emergency Planning	Belfast City Airport			Review, assessment and amendment of risk assessments remains an ongoing process in compliance with regulatory requirements for the Airport. In 2021 and 2023, work was undertaken to assess climate risks including consideration of sea level projections at the closest marine projections data point, with risks assessed in the context of UKCP marine projections. This assessment will be carried through in the development of BCA's climate strategy in 2024.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
IN1	Strategic Project: Business Continuity Planning Identify, review and assess extreme weather risks to port operations as part of the interdependent infrastructure network. Information to support emergency planning to be shared with relevant port stakeholders.	Belfast Harbour Commissioners	Ongoing		Identified material risks have been taken forward into the relevant Flood Resilience Plans (ongoing participation in DfI's Belfast Tidal Flood Alleviation Scheme), Business Continuity Plans and Marine Safety Management System. Advanced environmental sensing technology continues to be integrated into the Estate fabric, leveraging our 5G private network capabilities and integration into the ports digital twin.
IN1	Strategic Project: Smart Port Initiative Modelling sedimentation risk from coastal change, hydrographic flows and sedimentation will offer accurate projections to inform operational decision-making for long-term action on port infrastructure and operations.	Belfast Harbour Commissioners	By end of 2025		This project consists of modelling sedimentation risk from coastal change, hydrographic flows and sedimentation. Hydrographic survey programme data is now fully incorporated into port digital twin allowing for the internal monitoring and modelling of sedimentation risk in addition to informing an agile dredging programme.



CHAPTER 3: People & Built Environment

Action under this Key Area was taken forward under the following Outcome Objective within NICCAP2:

- P1: We have people, homes, buildings and communities that are resilient to the impacts of flooding and extreme weather.

In total, 31 actions were put forward for this Key Area throughout the lifetime of NICCAP2. Of those 31 actions, 28 showed significant progress made against them by the end of the Programme. In more detail the 31 can be broken down as:

- 14 actions were fully achieved;
- 14 actions showed a good level of progression but will require delivery into the next programme;
- 3 actions were progressed but not as far as expected with further work required.

The following tables provide further detail on the individual actions within the People & Built Environment Key Area, and the progress made in delivering each of them by the end of the Programme.

Central Government, Arm's Length Bodies, and Non-Departmental Public Bodies NICCAP2 Actions

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
Outcome Objective P1: We have people, homes, buildings and communities resilient to the impacts of flooding & extreme weather.					
PB1	Implement the Fuel Poverty Strategy in NI.	DfC	By end of 2023		Following an intensive Stakeholder engagement phase, a new Fuel Poverty Strategy is being developed to address the need for long-term, sustainable solutions to fuel poverty. The new Strategy intends to take a needs-based approach to targeting support. It will focus on making homes more energy efficient to address a root cause of fuel poverty and reduce the poor health outcomes associated with cold homes. A public consultation on the Fuel Poverty Strategy was published in December 2024.
PB1	Establish an online climate change and health information exchange platform for health practitioners.	DoH/Climate NI	Launch of platform by the end of 2019 and maintain platform from 2019 onwards.		The Climate NI Health and Wellbeing Platform was launched in September 2019 to meet a request from Health stakeholders for easier access to climate and health information relevant to NI. Due to Covid-19, access to information from health partners was disrupted, and interest of the primary audience in the health sector was seen to be greatly reduced, so update of the platform was put on hiatus in April 2020. The platform remains accessible and retains a broad range of information. As of Spring 2024 membership is around 65 members, from a range of public, private, academic and voluntary bodies. Aside from sporadic updates to the platform between April 2022 and 2024 there has been very little activity. The DoH and Climate NI will review whether the platform will continue during NICCAP3 period.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
PB5	Carry out review of the Preliminary Flood Risk Assessment.	Dfl	By end of 2019		Review of the 2011 Preliminary Flood Risk Assessment under the requirements of the EU Floods Directive and related NI Regulations was completed in December 2018 and reported to the European Commission on schedule in March 2019. This Review is summarised in the Northern Ireland Flood Risk Assessment 2018 (NIFRA 2018) which is available via the link: https://www.infrastructure-ni.gov.uk/publications/northern-ireland-flood-risk-assessment-nifra-2018
PB5	Remove properties from the out of sewer flooding register.	NI Water Ltd/ Dfl	By end of 2021		Ravenhill Avenue Project was completed in December 2023. The project reduced out of sewer flooding removing almost 9 hectares of impermeable area from the combined sewer network. Completion of this project enabled 11 properties to be removed from NI Water's internal Flooding Register. NI Water proposes to remove a total of 57 properties from the internal Flooding Register by the end of the PC21 Price Control period (2021 - 2027) - subject to funding.
PB5	Develop models for sewer risk and sewer capacity mapping.	NI Water Ltd/ Dfl	By end of 2021		NI Water continues to develop its modelling techniques for sewer risk and sewer capacity mapping, which helps to ensure accurate drainage area plans. There are currently 68 models available which cover approximately 82% (by population) of the network. We anticipate by the end of PC21 we will have 88% (by population) coverage. Updated information is passed to councils re: wastewater capacity on a yearly basis, to help inform local development plans.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
PB5 PB8	Engage with councils to assist them in bringing forward Local Development Plan policies and proposals that take account of climate change adaptation considerations in accordance with the provisions of the Strategic Planning Policy Statement and any other policies or advice in guidance issued by DfI.	DfI Planning	Ongoing - In accordance with Council Local Development Plan timetables.		The Department has recently issued directions to Antrim and Newtownabbey Borough Council (ANBC) & Derry City and Strabane District Council Draft Plan Strategy (DCSDC) having recently considered the Planning Appeals Commission (PAC) Independent Examination (IE) Report to adopt their draft Plan Strategies with modifications. Furthermore, the submission of Mid Ulster District Council's draft Plan strategy submission remains under consideration prior to 'causing an IE'. The Department continues to liaise with the four remaining Councils yet to publish Development Plan Documents and provides advice on draft plan policy formulation in relation to climate change and climate adaptation and mitigation as and when necessary. The Department will support Councils with adopted Plan Strategies as they work towards their Local Policies Plan preparation to ensure that policies and proposals take account of the effects of Climate Change and are formulated in accordance with the provisions of the SPPS and other relevant guidance issued by the Department.
PB5	Increase the number of Sustainable Drainage Systems introduced in new developments.	NI Water Ltd/ DfI	By end of 2024		The Subgroup of the SMG is continuing to identify the role of a SuDS Approval Body and to consider if such a body is required in Northern Ireland. The Water Flooding and Sustainable Drainage policy was passed by the Executive in September 2024.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
PB5	Develop the 'Living with Water' Project Plan.	DfI/NI Water Ltd	By end of 2019		The Living With Water in Belfast Plan was published by the Department in November 2021, following Executive endorsement. The implementation of the Plan's aims has commenced, and this will continue for many years to come. The speed at which the Plan can be delivered will directly depend on the level of funding made available.
PB8	Conduct condition surveys at NI Water's Historic Sites taking into account climate change.	NI Water Ltd/ DfI	By end of 2021		Complete. NIW is progressing to delivering the remedial measures identified within the condition surveys.
PB5 PB8 PB9	Implement the Flood Risk Management Plans for NI.	DfI	Ongoing		Work continues across the DfI responsible authorities in implementing NI 2nd Cycle Flood Risk Management Plan 2021-2027 (FRMP2) measures and objectives. In accordance with the legislation, progress is reported annually to senior management. Nearing the FRMP2 halfway point, progress has been satisfactory within both the resource available to the responsible authorities and any review actions necessary post major flood events i.e. 2023 South East Flooding. FRMP2 implementation will continue into NICCAP3.
PB5	Introduce the updated Technical Flood Risk Guidance in relation to Allowances for Climate Change in NI which relates to the inclusion	DfI	By end of 2019		Action completed in February 2019. Work now ongoing to update guidance for UKCP18.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
	of allowances for climate change in design of river and drainage infrastructure and advice on flood risk provided for development planning.				
PB5	Consider implications of the UK Climate Projections 2018 project outputs for drainage and flood risk management.	DfI	By end of 2024		Water and Drainage Policy Division work ongoing to update NI guidance on allowances for Climate Change in Flood Risk Management and Development Planning and Management is scheduled for completion by the end of 2024.
PB8	Develop a strategy on Climate Change and the historic environment to include research and the development of appropriate guidance.	DfC	By end of 2019		WDPD work ongoing to update NI guidance on allowances for Climate Change in Flood Risk Management and Development Planning and Management is scheduled for completion by the end of 2024.
PB7	Monitor research and development of uplifts to the Building Regulations in other regions of the UK and Republic of Ireland, and assess need for local measures.	DoF	Ongoing		A detailed review of overheating mitigation requirements in other regions building regulations has been completed. This informed the Department's consultation on potential changes to local building regulations, with further work to produce legislation and technical guidance, including further consultation, expected in the forthcoming NICCAP period.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
PB1 PB4 PB9 PB10	Strategic Project: Met Office Developing a Heat Service for Belfast.	Met Office Belfast City Council, Climate NI, UK Research and Innovation.	Pilot completed. Now measuring impact of work.		This project focused on the co-development of urban climate services for Belfast City Council, as part of the UKRI-funded UK Climate Resilience Programme. There have been no significant updates since the last review. Heat Pack & Story map can be found here via the UK Climate Resilience outputs (Met Office): https://www.metoffice.gov.uk/research/approach/collaboration/spf/ukcrp-outputs
PB5 PB7 PB14	Strategic Project: NI Housing Executive (NIHE) Developing a Climate Adaptation Plan for NIHE.	NI Housing Executive Northern Ireland Environment Link (Climate NI).	By 2024		NI Housing Executive (NIHE) is developing its first internal Climate Change Adaptation Plan, which should be used by all parts of the NIHE to provide information on, and to guide actions in response to climate change impacts. This work will compliment other strategies being developed within the NIHE to reduce the impact of the Climate Emergency, and the work of other public bodies. Development of the Climate Adaptation Plan has reached Step 3 in the NI Adapts cycle. Due to staff resourcing pressures the project had been paused, but there are now plans for further progress, which included several workshops in 2024.

Academia, Civil Society, Private Sector, Non-Government Organisations and Local Government NICCAP2 Actions.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
Outcome Objective P1: We have people, homes, buildings and communities resilient to the impacts of flooding & extreme weather.					
PB10	Research Project: Impact of 20mph Speed Limits on health (including modelling of climatic changes) - Assess the impact of the 20mph speed limits in Belfast (within the context of changing wind patterns and blocking episodes) on air quality and associated risks to health.	Professor Ruth Hunter, Queen's University Belfast	Project complete		This project is now complete, with results finding that implementing a 20mph speed limit can impact the health of the public by improving road safety and increasing active travel. Details here: https://climatenorthernireland.org.uk/site/wp-content/uploads/2022/02/NICCAP-P1.1-19-06-20.pdf
PB9	Practical Project: Health and Wellbeing Network - Information Platform Provide online platform for the provision of information and guidance on the impacts of climate change in current	Climate NI Health and Wellbeing Network	Ongoing		The Climate NI Health and Wellbeing Platform was launched in September 2019 to meet a request from Health stakeholders for easier access to climate and health information relevant to NI. Due to Covid-19, access to information from health partners was disrupted, and interest of the primary audience in the health sector was seen to be greatly reduced, so update of the platform was put on hiatus in April 2020. The platform remains accessible and retains a broad range of information. As of Spring 2024 membership is around 65 members, from a range of public, private,

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
	and future Health and Social care delivery.				academic and voluntary bodies. Aside from sporadic updates to the platform between April 2022 and 2024. The DoH and Climate NI will review whether the platform will continue during NICCAP3 period.
PB5	Strategic Project: Belfast City Airport: Safety and Emergency Planning	Belfast City Airport	Ongoing		Review, assessment and amendment of risk assessments remains an ongoing process in compliance with regulatory requirements for the Airport. In 2021 and 2023, work was undertaken to assess climate risks including consideration of sea level projections at the closest marine projections data point, with risks assessed in the context of UKCP marine projections. This assessment will be carried through in the development of BCA's climate strategy in 2024.
PB1 PB5 PB6	Strategic Project: Regional Community Resilience Group	Regional Community Resilience Group	Ongoing		RCRG has progressed on two significant projects: Two pilot projects entitled "Prepare, Adapt, Strengthen" have been delivered in DCSDC and MEA areas with the aim to focus on all types of civil emergencies risk, including severe weather and other impacts from climate change. These participatory, place-based approaches to co- producing resilience in local communities are being evaluated, with the anticipation that the methodology can be mainstreamed. Ongoing work with the Education Authority focused on Key Stage 2 to develop a Thematic Educational Unit for Resilience Material from a number of agencies.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
NE12 PB8	Strategic Project: Climate Change Adaptation Plan for Mount Stewart	National Trust	Ongoing		<p>In 2022, the National Trust held a workshop in conjunction with DfC and UCL's Climate Action Unit, to explore building consensus around adaptation decision making in historic environment assets, using Mount Stewart to understand the impacts.</p> <p>Monitoring is underway at Mount Stewart to gather data required for future decision making. A coastal realignment project is taking place at Anne's Point to achieve a better functioning tidal system and improve the development of saltmarsh; and at the nearby Sea Plantation, adaptation options are being considered, including planting saline resilient trees.</p> <p>Building on Mount Stewart, pilot workshops to identify hazards and vulnerability in Fermanagh and the Giant's Causeway helped develop the National Trust's adaptation 'handrail'. Further sites will now participate in impact assessment workshops (step 1 of the handrail).</p>
PB1 NE3 NE6	Research Project: Once Upon a Time in a Heatwave UKRI funded embedded research placement using inter-disciplinary methods including storytelling to develop resilience to summer heat extremes in rural and agricultural communities.	Dr Alan Kennedy-Asser, University of Bristol University of Bristol (embedded in Climate NI)	Ongoing (funded November 2021 - 2022)		<p>All core project outputs were delivered and completed within the project timescale (completed 2022). Outputs are now being further developed, with data from the online app and Castlederg case study of care providers adapting to recent temperature extremes being written into an academic report on climate impacts in rural Northern Ireland with the study also presented at the World Climate Research Program's Open Science Conference (2023). The Belfast walking tour is being used as a communication and learning tool with NI Science Festival (2023 and 2024) and Queen's University Belfast.</p>

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
					Lessons from the project also contributed to four chapters of the book Quantifying Climate Risk and Building Resilience in the UK (2024: https://link.springer.com/book/10.1007/978-3-031-39729-5).
PB1 PB3 PB5 PB6	Strategic Project: Climate Clever Communities Creating Community Climate Action Plans in 10 locations.	Keep Northern Ireland Beautiful (KNIB)	January 2022 - August 2022		This project was completed in January 2023 with the following outputs: <ul style="list-style-type: none"> - Carbon literacy training programme for 1500+ members of the community and 30 targeted tourism businesses; - 41 grassroots climate action projects resourced via a Challenge Fund across following categories; - the climate/sustainability education, waste reduction / avoidance / food security, energy reduction, transport and biodiversity; - 10 Community Led Climate Action Plans developed- Each group had access to carbon literacy training, outreach support and climate action planning workshops as well as seed funding to kickstart a project identified within their plan; - Climate Clever Communities Conference & Film.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
PB1 PB5 PB7 PB8	Research Project: The Moveable Nexus (M-NEX) Design-led Urban Food, Water and Energy Management Innovation in New Boundary Conditions of Change.	Professor Greg Keeffe and Dr Sean Cullen, Queen's University Belfast	April 2018 - March 2022		The project, funded by JPI Urban Europe and Belmont Forum, completed in March 2022. The work - through living labs - demonstrated the role of integrating urban food growing systems in differing urban contexts, measuring how the food, water and energy trade-offs compared to a baseline for each city. The FEWprint assessment tool, developed by the team, was used to evaluate the effectiveness of different growing systems and types of food. The Belfast team (Queen's University Belfast and Maccreeanor Lavington) developed a toolkit of interventions in various spatial contexts in the city of Belfast, demonstrating the potential of integrating new forms of economic activity in low-density neighbourhoods. Outputs included: (1) Design proposals for East Belfast (2) Book publication (3) Academic journal papers (4) FEWprint assessment tool
PB1 PB5 PB6 PB8	Research Project: Transboundary Adaptation Learning Exchange (TalX) Learning network to progress adaptation measurement and action across boundaries.	University College Cork Northern Ireland Environment Link (Climate NI), SNIFFER (Scotland)	Ongoing		The TALX project ended in January 2023. All aims of the project were met and a follow-on research project has been funded due to the success of the project. The place-based climate adaptation partnership framework (outlined as action 1) that was co-created through the project is easily accessible and is maintained on GitHub so that it will be available after the project lifetime: https://talx2020.github.io/

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
					<p>Strong communities of practice (outlined as action 2) were established through the project, with stakeholders choosing to collaborate in a number of subsequent projects. For example, Derry City and Strabane District Council (DCSDC), Mayo County Council (MCC) and Climate Northern Ireland are all participating in the BluePrint Project led by UCC. In the TALX 2 project (led by UCC) Northern Ireland Environment Link are coordinating partners, while DCSDC, MCC and Sniffer are participating in the research. Informally the network established by TALX continues to grow with many participants from the UK and Ireland still benefiting from these connections.</p> <p>Outputs of the TALX project, alongside the CMM framework, included a research report, academic papers and policy briefs for each of the jurisdictions:</p> <p>-Northern Ireland - https://www.marei.ie/wp-content/uploads/2023/12/Northern-Ireland-Policy-Brief-on-National-Assessment.pdf</p> <p>-Wales - https://www.marei.ie/wp-content/uploads/2023/12/Wales-Policy-Brief-on-National-Assessment.pdf</p> <p>-Scotland - https://www.marei.ie/wp-content/uploads/2023/12/Scotland-Policy-Brief-on-National-Assessment-.pdf</p> <p>-England - https://www.marei.ie/wp-content/uploads/2023/12/England-Policy-Brief-on-National-Assessment.pdf</p>

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
					<p>-Ireland - https://www.marei.ie/wp-content/uploads/2023/12/Ireland-Policy-Brief-on-National-Assessment.pdf</p> <p>All outputs can be found at: https://talx.ie/resource/</p>
PB1 PB5 PB6	Research Project: RESIL RISK Exploring public perception of climate risk and resilience in NI.	Cardiff University & Northern Ireland Environment Link (Climate NI	Phase 1 completed. Funding awarded for a repeat survey to take place in 2023.		<p>RESIL RISK Northern Ireland 2023 was a repeat of 2022 survey into public perceptions of climate risks, and adaptation measures/priorities. (Additional options were included to provide insights into attitudes to local food and farming, as part of the Rural Resilience project). The sample size was 371.</p> <p>Results show that political and economic concerns remain as the highest priority, but a clear majority still believe climate action to be urgent. Priorities for adaptation include agriculture and affordable, local food, nature-based solutions and protection of the most vulnerable in society. Local government were perceived to be responsible for preparing Northern Ireland for climate change, though also the least trusted source of climate information.</p> <p>Recommendations for public engagement and policy include supporting communities to better understand potential local impacts of and preparation for extreme weather events, embedding climate resilience actions into existing programmes, increasing public understanding of the importance of local food and sustainable farming practices for food security, and collaboration between sectors for a united vision.</p>

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
PB1 PB5 PB7 PB8	Strategic Project: RSUA Climate Emergency Position Paper	Royal Society of Ulster Architects (RSUA)	Ongoing		<p>The RSUA Climate Action Paper was launched at Stormont in early 2023. The paper identifies changes required to the built environment in Northern Ireland, the actions that can help deliver those changes, who should take those actions and by when. The paper covers:</p> <ul style="list-style-type: none"> • Existing buildings • New buildings • Travel • Green • Building materials • Heat and power <p>RSUA will report on delivery of these action at appropriate intervals.</p>
PB1 PB5 PB6 PB9	Strategic Project: Integrated Community Resilience Pilot Helping communities to identify local needs and opportunities, and to reduce vulnerabilities.	Mid and East Antrim District Council (MEABC) Derry City and Strabane District Council (DCSDC)	Ongoing		<p>Mid and East Antrim District Council has now completed this collaborative piece of work with DSDC and external consultants to prepare a Community Resilience Toolkit. The Toolkit is designed to enable local communities to understand their inherent resilience, their groups strengths e.g. skills, local knowledge, communications etc and to identify gaps in knowledge and resource, to make them better prepared in the event of e.g. extreme weather impacts. MEA Community Resilience Groups are developing the toolkit further as they review and refine their own Community Resilience Plans. The Regional Community Resilience Group is currently hosting a range of strategic</p>

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
					<p>workshops with all multi agency partners. The aim is to share the findings and consider how best to implement the recommendations which include a public facing portal, funding and support for implementation and accessibility to all communities.</p> <p>Community Resilience continues to be a delivered by Council throughout the City & District. In addition in 2023 Council delivered a Community Resilience pilot in conjunction with community groups and local government officers exploring what resilience means, how communities view and identify risks, and how to understand capabilities, strengths and vulnerabilities to build resilience in their local areas. The results provide innovative and holistic methods to identify, nurture and harness resilience for the future and also develop resources that can be employed in the future implementation of community resilience activities, with the aim of mainstreaming this work on a consistent basis across the 11 council areas.</p>

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
PB1 PB5 PB7 PB8	Strategic Project: Preparation of a Climate Change Risk Assessment, Action Plan and Investment Framework for Belfast City Council	Belfast City Council Climate NI, Department for Infrastructure	June 2022 - November 2022		Climate Change Risk Assessment completed in 2023. Climate Action Plan has been drafted and is currently moving through Council approval processes. Plan integrates both mitigation and adaptation action, focusing on key risks of flooding and overheating, however full vulnerability assessment not possible due to current data and evidence gaps. Investment Plan awaiting additional studies to be completed.
PB1 PB5 PB7 PB8	Strategic Project: UPSURGE Research, co-create, measure and digitalise nature-based solutions in unused Belfast sites.	Belfast City Council EU Partners	2022 - 2024		Programme is progressing according to timetable. Main physical implementation of main site is due to be delivered in Summer 2024 with knowledge exchange, learning, citizen science elements to get underway from April 2024. Monitoring of the site continues through to August 2025. All cities will be hosted in Belfast for Project Group Meeting on 18-20 Belfast hosted a project partner Project Group Meeting in Lol, and September 18-20, 2024.
PB1 PB5 PB6 PB8	Strategic Project: Roadmap to Sustainability Formalising Ards and North Down Borough Council's commitment to becoming more sustainable.	Ards and North Down Borough Council	2021 - 2028		The Roadmap to Sustainability has been developed to formalise the Council's commitment to becoming more sustainable in terms of its own operations, but also in terms of the wider Borough as a whole. Since its approval in March 2021, the Action Plan has been reviewed 6 monthly to council with any updates and additions. Following an external audit, at Council request in 2023, a full review of the Roadmap will be carried out based on recommendations made by the auditors. This will happen during 2024. Overall, the Roadmap continues to be a mechanism to progress a number of actions and ensure that cross service working and partnerships continue whilst maintaining



NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
					our commitment to the Climate Emergency. The Climate Adaptation Plan remains an Action within the Roadmap with other actions such as the Tree & Woodland Strategy, Growing Strategy and the, pending, Climate Action Plan complimenting it.



CHAPTER 4: Disruption to Businesses & Supply Chains

Action under this Key Area was taken forward under the following Outcome Objective within NICCAP2:

- B1: We have businesses that can adapt to impacts of climate change & extreme weather.

In total, 4 actions were put forward for this Key Area throughout the lifetime of NICCAP2, with all 4 being progressed to completion by the end of the Programme.

The following tables provide further detail on the individual actions within the Disruption to Businesses & Supply Chains Key Area, and the progress made in delivering each of them by the end of the Programme.

Central Government, Arm's Length Bodies, and Non-Departmental Public Bodies NICCAP2 Actions

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
Outcome Objective B1: We have businesses that can adapt to the impacts of climate change & extreme weather.					
BU3	Publish the Water Resource and Supply Resilience Plan.	NI Water Ltd/ DfI	By March 2020		The Plan was published in June 2020.
BU1 BU2 BU5 BU6 BU7	DfE Energy Branch will liaise with the Oil, Gas and Electricity Industries to promote and encourage thinking on climate change issues. The sectors will be encouraged to plan for the future and have regard for possible impacts due to severe weather, and in particular to consider flooding risks.	DfE	Ongoing - Once a year at Industry Security of Supply Meetings.		DfE Energy Branch has maintained engagement with the energy industry and will continue its continuous focus on the issue of Climate Change.
BU1 BU2 BU5 BU6 BU7	Invest NI through the nibusinessinfo.co.uk platform, working in partnership with other bodies, will maintain and develop 'Adapt your business	Invest NI	Ongoing		The Invest Northern Ireland website, nibusinessinfo.co.uk, successfully updated, maintained, and promoted the guidance dedicated to supporting and advising businesses on "Adapting to Climate Change" throughout the programme. This guide delivered over 2,000 annual customer views by the final year of the reporting period.

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
	to climate change' guidance to reflect emerging climate change outcomes, response planning and government strategy.				nibusinessinfo.co.uk also delivered two new complementary business-focused climate guides, produced in partnership with Climate NI, on "How to Become a Net Zero Business," published in September 2022, and "Climate-Related Financial Disclosure Reporting (TCFD)," launched in October 2023. Another page, "Prevent Climate Breakdown: Six Practical Steps Your Business Can Take," was published in September 2019. These three guides generated 1,700 annual customer views by the last year of the reporting period. nibusinessinfo.co.uk has actively highlighted climate adaptation and mitigation business advice and guidance through news articles and Business Support Finder schemes. Other promotional activities included awareness-raising through Events Finder listings, social media channels, paid search campaigns, and email newsletters.
BU2	INTERREG IVB Atlantic Area Platform for Geohazard Management (AGEO) project to establish a Citizens' Observatory to monitor and assess the risk from geological hazards in response to climate change at the Giant's Causeway and Carrick-a-rede.	GSNI (DfE)	End 2022		This action was fully achieved with the completion of the AGEO project in June 2023. Follow on work is planned however building upon the success and lessons learned within the project including the development of a geological hazards work programme within the GSNI.

Academia, Civil Society, Private Sector, Non-Government Organisations and Local Government NICCAP2 Actions

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
Outcome Objective B1: We have businesses that can adapt to the impacts of climate change & extreme weather.					
BU1 BU3 BU4 BU5 BU6 BU7	Strategic Project on Business Resilience Toolkit for Dairy Farmers Monitor the number of farmers using the Business Resilience toolkit to provide understanding of resilience planning among the 30% of dairy farmers covered by Lakeland Dairies in NI.	Lakeland Dairies NI, Climate NI	Pilot complete. Upgraded project underway.		Delivery of the Rural Resilience Project Objective 1: To raise awareness of climate risks, opportunities and adaptation practice amongst farmers and wider agri-sector. Outputs: Consultation with leading agri-sector bodies through Steering Group and with farmers through four Workshops across NI; communication of key messages via radio, industry press, online; and production of Climate Adaptation Factsheet. Objective 2: To improve baseline data and identify future research gaps. Outputs: Research and publication of RESIL RISK NI 2022 and 2023 public perception surveys https://www.nienvironmentlink.org/resil-risk-2023-report-launched/ ; and review of existing NI adaptation research. Input to AFBI. Objective 3: To input to policy Outputs: Project findings shared with DAERA policy makers, environmental Sustainable Agri-Policy Working Group and Climate NI for input to CCRA4 and NICCAP3. Project has been very beneficial for cross-sector collaboration and laid a firm foundation for adaptation work within NI agriculture. However, continuity work is required to support ongoing requests for information and input to public sector and farm resilience plans.



CHAPTER 5: Food Security/Global Food Production

Action under this Key Area was taken forward under the following Outcome Objective within NICCAP2:

- IF1: We have a food system that is resilient to the impacts of climate change.

In total, 7 actions were put forward for this Key Area throughout the lifetime of NICCAP2. Of those, 6 showed significant progress made against them by the end of the Programme. In more detail the 7 can be broken down as:

- 2 actions were fully achieved;
- 4 actions showed a good level of progression but will require delivery into the next programme;
- 1 action was progressed but not as far as expected with further work required.

The following tables provide further detail on the individual actions within the Food Security Key Area, and the progress made in delivering each of them by the end of the Programme.

Central Government, Arm's Length Bodies, and Non-Departmental Public Bodies NICCAP2 Actions

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
Outcome Objective I1: We have a food system that is resilient to the impacts of climate change.					
IT1 IT2	Development of a strategic approach to surveillance in the food system. The approach includes but is not confined to risks associated with climate change.	Food Standards Agency (FSA)	Initial phase of surveillance strategy to be implemented by end of 2019.		<ol style="list-style-type: none"> 1. Signal prioritisation dashboard now named 'Signals Dashboard' now includes almost 60 sources to monitor a wide range of food hazards, where some may be climate induced such as aflatoxin. It now opens to external parties upon request. 2. Risk likelihood dashboard has grown further to more than 1000 users from 179 Local Authorities and Port Health authorities. The dashboard provides information on food hazards at borders of the UK and also other countries. This allows the FSA to analyse food being imported from countries most affected by climate change. 3. The Aflatoxin climate model has been discontinued due to poor accuracy of the model. The model was only able to pick up seasonal trends but only in specific countries. This meant the model was unable to provide a comprehensive projection of future food hazards which are climate induced.
IT1 IT2 IT3	Food Standards Agency to continue working to improve its understanding of global food system risks with a wider and longer-term foresight approach,	FSA	Report from Science Council and Food Standards Agency response agreed by end of 2019		The Strategic Insight Team (SIT) was established in 2021, part of whose remit is to undertake foresight activities. The SIT employs various foresight techniques along other teams within the agency to monitor signals for potential disruptions and vulnerabilities in the food system. Alongside this, the FSA has put in place a programme of foresight activities. These are focused around biennial strategic assessments (most recent available here: [link])

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
	<p>complementing the nearer-term approach in surveillance. Food Standards Agency to continue working with its Science Council to:</p> <p>(i) update and develop the understanding of the future food system and the associated risks and opportunities for food safety and authenticity in the UK, and the opportunities.</p> <p>(ii) identify how Food Standards Agency can strengthen its capability in food system foresight. Includes but is not limited to climate change and its impacts.</p>				<p>https://www.food.gov.uk/sites/default/files/media/document/STRATEGIC%20ASSESSMENT%202023_REPORT_V2.0%20-%20final.pdf,</p> <p>Alongside a programme of specific foresight reporting as part of our emerging challenges and opportunities research: https://www.food.gov.uk/research/emerging-challenges-and-opportunities</p> <p>We are also due to publish a short assessment on the impacts of climate change on the UK food system in September 2024. The Science Council have published an assessment of net zero and food safety: https://science-council.food.gov.uk/Food%20Safety%20and%20Net%20Zero%20Carbon%20%282021%29</p>

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
PB12	Food Standards Agency to continue to examine the trends and new risks in relation to food-borne illness, working with expert advisers, other government departments, and other partners, in the UK and internationally.	FSA	Ongoing		The FSA continues to build cross-government data partnerships. The current external fellowship with Newcastle University is due to run until 2027. The Fellowship is on track and delivering work relevant to FSA risk assessment and science needs e.g. fellow has identified cross-government and other stakeholder interest in conducting a living review mechanism for food safety evidence and successfully passed an internal progress review in 2024.

Academia, Civil Society, Private Sector, Non-Government Organisations and Local Government NICCAP2 Actions

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
Outcome Objective I1: We have a food system that is resilient to the impacts of climate change.					
IT2	Strategic Project: Improving the Safety and Security of the Food Chain Annually review and update risk assessments to improve the safety and security of the food chain. Provide coordination of a rapid expert advice mechanism for members, regulators and industry partners to respond to risks.	Food Fortress Ltd. Institute of Global Food Security (IGFS) at Queens University Belfast and NI Grain Trade Association.	Ongoing		Food Fortress has successfully assisted feed businesses to quantify and mitigate contamination risks in animal feeds. This helps ensure efficiency of feed use and reduces emissions to atmosphere. Significant presence of Mycotoxin in some feed materials have been detected - guidance to feed businesses focussed on safe inclusion of these materials in feed for the various species of farmed livestock. Monogastrics (pigs & poultry) are particularly impacted by mycotoxins in the diet and our program of measurement & mitigation is essential to ensure animal welfare & performance. Further development of the scheme will be centred on use of artificial intelligence (AI) to analyse the data collected over the 10 years the scheme has been in operation. An EU funded research project is being undertaken along with Institute of Global Food Security at Queen's University Belfast. This will identify patterns of contamination in the global supply chains and help predict the threat of future events.
It1 It3	Practical Project: FAR Environmental Training Training feed advisors on environmental issues, including climate change,	Northern Ireland Grain Trade Association (NIGTA)	Ongoing		All sectors have now completed the NI Feed Advisor Register (FAR) environmental training module covering issues such as climate change, ammonia and water quality. Next steps will be to focus more closely on Carbon emissions reduction and mitigation strategies and the continuing journey towards net zero by 2050. A new training module has been in development by CAFRE in conjunction

NI Evidence Report Risk(s)/ Opportunity(-ties) to be addressed	Action	Responsibility	NICCAP2 Implementation Timeline	RAG Status	End of Programme Assessment of Progress
	equipping them with the tools to help reduce greenhouse gas emissions and nutrient losses on farm.				with NIGTA personnel and is nearing completion. It will begin to be rolled out to NIGTA members from March 2024
It1 It3 It7	Strategic Project: Belfast Sustainable Food Places Framework and Action Plan	Belfast City Council Social Farms and Gardens, Food Ethics Council, Ulster University, Nourish NI	April 2022 - September 2022		This work has led to the establishment of a cross-sectoral Sustainable Food Partnership for Belfast under community planning structures in 2023. Development work in ongoing to build relationships, workstreams and public awareness and engagement. Currently developing a Sustainable Food Strategy for Belfast in 2024 and seeking Bronze reaccreditation in summer 2024. Engaging with DAERA to develop strategic alignment with NI Food Strategy Framework.
It1 It3 It7	Practical Project: Acorn Farm Creating a sustainable urban food system which reduces greenhouse gas emissions and is resilient to the effects of climate change.	Derry City and Strabane District Council Community Foundation Northern Ireland Conservation Volunteers	Ongoing		The Acorn Farm project is underway with appointment of contractors onsite. The project priorities are to improve food security and resilience to climatic shocks by increasing the capacity for local people to grow their own food. The urban food hub will be completed in Summer 2025. The wider community growing programme continues to be delivered throughout the City & District with engagement across food networks, communities, and agencies.

CHAPTER 6: Local Government Adaptation

The 11 Northern Ireland local councils make up the local government which plays a central role in delivering essential local services, and under the two-tier planning system are responsible for the consideration of local planning applications, as well as development planning and enforcement within their geographical area. Working in partnership with other public sector agencies this range of roles and responsibilities, across both short-term and long-term development, provides the connection between strategic and local governance and places local councils at the heart of climate resilience.

Local Government Actions in NICCAP2

At the beginning of NICCAP2, local government put forward the following 5 actions to be achieved by the end of the programme:

No.	Action	Current Reporting partners
1	Work with local councils to embed the adaptation cycle across local council planning with the aim of encouraging councils to complete a minimum of step 1 by 2021 and step 4 by 2024.	NILGA, Climate NI, supported by SOLACE
2	Explore the capacity needs within local councils to enable delivery of Action 1 (above) and develop support mechanisms.	Climate NI, NILGA
3	Develop and pilot a 'monitoring and reporting process' which can be used by local councils to undertake Step 5 of the adaptation cycle.	Climate NI
4	Share learning from C.L.I.M.A.T.E. NPA INTERREG project on adaptation cycle planning with local councils.	Climate NI and DCSDC
5	In bringing forward their Local Development Plans, Councils will take account of climate change adaptation considerations as indicated in the Strategic Planning Policy Statement.	Local councils

By the mid-term review in 2022, actions 2, 3 & 4 were completed and so the following tables contain an assessment of progress against actions 1 (Development of a Climate Adaptation Plan) and 5 (Accounting for Climate Adaptation within Local Development Plans) from the above table.

Council	Action	Indicative Timeline	RAG Status	End of Programme Assessment of Progress
Antrim and Newtownabbey Borough Council	Development of Climate Adaptation Plan	Completed		The two workshops as part of Step 3 were not completed as planned in 2022. Local elections in May 2023 meant that the Climate Change Steering Group had to be re-established and is now known as the Sustainability Working Group. Following consultation and advice from Climate NI in February 2024, there are now plans to complete these 2 workshops in Spring 2024. This will enable Antrim and Newtownabbey Borough Council to complete the first full draft of a Climate Change Adaptation and Mitigation Action Plan. This will then go out for public consultation and amendments made before a final version is published. It is now anticipated that the Council will be in a position to publish an Adaptation Plan in Winter 2024. On this basis, it may require a small amount of delivery input during the 2024 - 2029 adaptation programme.
	Account for Climate Adaptation within Local Development Plan (LDP)	Completed		Following the conclusion of the Independent Examination of the Council's Draft Plan Strategy in June 2022, the Planning Appeals Commission (PAC) has now completed its Advisory Report. On 4 October 2023, the PAC forwarded this Advisory Report to the Department for Infrastructure (DfI) for consideration. This report has not been issued to the Council, and its release is a matter for the Department. Having considered the Advisory Report from the PAC, the Department will issue a Direction to the Council instructing that the Draft Plan Strategy is adopted with or without modifications, or that it is withdrawn. On this basis, it may require a small amount of delivery input during the span of the next adaptation programme.

Council	Action	Indicative Timeline	RAG Status	End of Programme Assessment of Progress
Ards and North Down Borough Council	Development of Climate Adaptation Plan	Completed		<p>Ards and North Down Borough Council are currently completing step 3 of the NI Adapts cycle. Following workshops and one to ones with specific managers the final draft Risk Register has been developed. However, this will remain a live document and reviewed alongside our Corporate Risk Register and added to Corporate Governance Schedule. It will also be reviewed at regular intervals via our Climate Working Group and action taken as and when required.</p> <p>The wider document on background, vision, aims etc has been completed. The overall document has been edited and formatted into a public version. It is currently having a final review by senior staff before going to Committee and Council in April 2024.</p>
	Account for Climate Adaptation within Local Development Plan (LDP)	Completed		<p>Work continues on the formulation of the draft Plan Strategy. Section 25 of the Northern Ireland (Miscellaneous Provisions) Act 2006 requires that all Councils, in exercising their functions, act in a manner that will contribute to the achievement of sustainable development. This is reinforced by Section 5 of the Planning Act which requires that the Council in exercising its functions in relation to a development plan must do so with the objective of furthering sustainable development and take account of the relevant policy and guidance. The draft Plan Strategy will be accompanied by a Sustainability Appraisal (SA). It is intended to consult on the draft Plan Strategy and accompanying SA in the 24/25 financial year.</p>

Council	Action	Indicative Timeline	RAG Status	End of Programme Assessment of Progress
Armagh City, Banbridge and Craigavon Borough Council	Development of Climate Adaptation Plan	Ongoing		Armagh City, Banbridge and Craigavon Borough Council have developed a draft strategy and Climate Action Plan and are in the process of ratifying and publishing both. A complete Adaptation plan has not yet been developed although the building blocks are in place for one.
	Account for Climate Adaptation within Local Development Plan (LDP)	Ongoing		Armagh City, Banbridge and Craigavon Borough Council has incorporated a number of policy issues relating to climate change mitigation and adaptation which will be firmed up in the Draft Plan Strategy consultation document due to be published imminently.
Belfast City Council	Development of Climate Adaptation Plan.	Ongoing		Climate Action Plan drafted which integrates both mitigation and adaptation measures for the Council. Awaiting progress through Council's approval systems for adoption. Climate Change Risk Assessment is completed and has informed a new Climate Action Plan which has been drafted by the Council in 2023 and awaiting adoption. Some early actions are being taken forward through the Council's £1m Climate Action Fund including work on biodiversity action and nature-based solutions. The Climate Action Plan embeds both adaptation and mitigation planning for the Council together. Working towards approval and adoption for the plan, with work on a climate investment plan to follow to support delivery plan and outcomes.
	Account for Climate Adaptation within Local Development Plan (LDP).	Completed		It includes a number of policies that are directly relevant to climate change. These include policies on Flooding (ENV4), SuDS (ENV5), Green & Blue Infrastructure (GB1) and, more specifically, Mitigating and Adapting to Climate Change (ENV2 & ENV3). There are also many other policies that directly and indirectly relate to climate change mitigation - not least the overall approach to sustainable

Council	Action	Indicative Timeline	RAG Status	End of Programme Assessment of Progress
				<p>development. Specific Supplementary Planning Guidance has also been published to support Policies ENV4 (Flooding) and ENV5 (SuDS).</p> <p>The Council has commenced work on the Local Policies Plan, which will set out the land use zonings, designations and other local policy provisions for specific parts of the city. This will be prepared in accordance with the LDP Timetable, which was revised and published in November 2024.</p>
Derry City and Strabane District Council	Development of Climate Adaptation Plan.	Complete		Climate Adaptation complete and delivery ongoing. Details of final Adaptation Plan here: https://cape.mysociety.org/media/data/plans/derry-city-and-strabane-district-council-4623590.pdf
	Account for Climate Adaptation within Local Development Plan (LDP).	Ongoing		Climate adaptation is included in the Derry City and Strabane District Council Draft Local Development Plan 2032 as per the Development principles and associated policies. It states developments should demonstrate how they “mitigate against the effects of climate change, adapt to its impacts, and to ensure resilience.” Further policies are included covering flood risk, SuDs, green infrastructure, biodiversity net gain and energy.
Fermanagh and Omagh District Council	Development of Climate Adaptation Plan.	Completed		Implementation of Fermanagh and Omagh District Council's Climate Change and Sustainable Development Strategy and action plan continues. A review of the Action plan has commenced, which aims to have a greater focus on adaptation, and enable an assessment of climate adaptation priorities. Bi-annual reports are presented to the Council's Environmental Services Committee. Climate NI delivered further training to Senior Managers in March 2023, which further demonstrates the Council's commitment that climate change is

Council	Action	Indicative Timeline	RAG Status	End of Programme Assessment of Progress
				embedded in all areas of the Council's work. In addition, the Climate Team was subject to an audit review in 2023, which determined that there was a satisfactory system of governance, risk management and control. In the recently approved Fermanagh and Omagh's 2030 Community Plan: Action Plan 2024-28, under the Environment Theme "Climate Action - Embed sustainability to ensure progress towards a net zero district" is a key priority which will underpin the partnership's commitment to work towards a Net Zero district.
	Account for Climate Adaptation within Local Development Plan (LDP).	Completed		<p>Fermanagh and Omagh District Council adopted the Local Development Plan 2030: Plan Strategy on 16 March 2023. Aligned with the vision of the Fermanagh and Omagh Community Plan 2030, the Plan Strategy aims to create a welcoming, shared, and inclusive district that is healthy, safe, connected, and prosperous, while cherishing and sustainably managing its natural, built, and cultural heritage. It focuses on creating sustainable communities through housing, job creation, enterprise promotion, tourism support, and provision of services and facilities, within a well-planned natural and built environment.</p> <p>The Plan Strategy was adopted in accordance with the FODC Local Development Plan Timetable. FODC were the first Council in NI to adopt the Plan Strategy.</p>

Council	Action	Indicative Timeline	RAG Status	End of Programme Assessment of Progress
Lisburn and Castlereagh City Council	Development of Climate Adaptation Plan.	Ongoing		Lisburn & Castlereagh City Council is continuing to complete the steps set out in the NI Adapts Planning Toolkit to develop a Climate Adaptation Plan. The Council is currently working on the actions set out in Step 3 of the Planning Toolkit and aims to have developed a Climate Adaptation Plan by the end of 2024.
	Account for Climate Adaptation within Local Development Plan (LDP).	Outcomes of the Commission's report - approx. Nov 22.		Lisburn & Castlereagh City Council has adopted its Local Development Plan 2032, Plan Strategy on the 26 September 2023 following resolution by full council. The Plan Strategy, September 2023 and all supporting documentation including the Sustainability Appraisal Report (incorporating Strategic Environmental Assessment), the adoption statement, the report and recommendations of the Planning Appeals Commission and the Direction made by the Department for Infrastructure, are available in the Plan Strategy Documents Library on Lisburn & Castlereagh City Council's website.

Council	Action	Indicative Timeline	RAG Status	End of Programme Assessment of Progress
Mid and East Antrim Borough Council	Development of Climate Adaptation Plan.	Ongoing - aim to publish Adaptation Plan by 2023.		Council has continued working through the steps of the NI Adapts Adaptation Planning Cycle and have now produced a draft MEA Adaptation Plan 2023-27. This involved transposing agreed adaptation actions from the over-arching Climate and Sustainability Action Plan 2023-27, and also including new actions agreed by Heads of Service and key officers. The draft Plan is being presented to the Climate Change Sub Committee for approval on the 20 February 2024. Following this, it will go for approval to the Environment and Economy Committee on the 4 March 2024. All actions have been uploaded into our performance delivery platform 'Decision Time' where actions have been assigned to key officers, who will provide either 6-monthly or annual updates on their progress. Elected Members received Carbon Literacy training in September 2023 by Giraffe Associates.
	Account for Climate Adaptation within Local Development Plan (LDP).	Outcomes of the Commission's report - approx. Nov 22. Council's Plan Strategy will be adopted by the end of 2023.		The Local Development Plan has now been finalised and launched (end-2023). The Plan is embedded with sustainable development principles and climate adaptation. In addition to the updates provided in the NICCAP 2022 report, Council recently prepared a response to the DfI Call for Evidence on A Future Focused Review of the Strategic Planning Policy Statement (SPPS) on the issue of Climate Change. This Call for Evidence asks if the existing Strategic Planning Policy Statement should be reviewed given the Climate Change Act (Northern Ireland) 2022 legislative requirements. Council's response will be submitted in advance of the deadline of the 28 March 2024.

Council	Action	Indicative Timeline	RAG Status	End of Programme Assessment of Progress
Mid Ulster District Council	Development of Climate Adaptation Plan.	Ongoing - plan to publish Adaptation Plan in 2024.		<p>Progress has been delayed on the preparation of the Mid Ulster District Council Climate Adaptation Plan as work on producing a draft version the Councils Sustainability Strategy and Climate Action Plan took priority. This Draft plan has now been prepared and is shortly going to consultation so resources can now be devoted to progressing the Climate Adaptation Plan.</p> <p>Mid Ulster District Council has completed Step 1 and 2 of the NI Adapts Adaptation Planning Toolkit and is currently on Step 3. A core working group was established within the Environmental Services Department. Workshops held as part of Step 2 included an extended working group with representatives from all Council departments. The Council is now at Step 3 and has developed a draft risk register in advance of holding Workshop 2 in April 2024. It is expected that the final Plan will be completed by the end of 2024.</p>
	Account for Climate Adaptation within Local Development Plan (LDP).	Ongoing		<p>Mid Ulster District Council published its Local Development Plan 2030 - Draft Plan Strategy on the 22 February 2019. The Draft Plan Strategy was subject to an 8-week consultation period followed by a counter representation period. Due to a procedural error, the Council re-consulted on its Draft Plan Strategy which closed on 24 September 2020. The draft Plan Strategy was submitted to the Department for Infrastructure on 28 May 2021.</p>

Council	Action	Indicative Timeline	RAG Status	End of Programme Assessment of Progress
Newry, Mourne and Down District Council	Development of Climate Adaptation Plan.	Ongoing		<p>Newry, Mourne and Down District Council is currently on Step 3 having completed Steps 1 and 2 of the NI Adapts tool process. The Council's Head of Sustainability is responsible for this work. The Council established a Core Climate Focus Group within Council which is cross-departmental and includes 10 members of staff. A larger Cross Departmental Climate Working Group has also been established to support development of the Adaptation Plan. The Council held a series of meetings and workshops and in February 2023 held its penultimate Workshop for Step 3. Further One-to-one meetings have been ongoing with service areas across Council on specific actions for the Climate Adaptation Plan. Work has continued on finalising the Risk Statements and Risk Register and preparing and drafting the Climate Adaptation Plan. Work on a new Sustainability and Climate Change Strategy also commenced and a Draft Strategy and Action Plan have been developed. Another change of personnel for Head of Sustainability has taken place and this along with a focus on the Sustainability and Climate Change Strategy has led to a delay with the final Adaptation Workshop and completion of the Adaptation Plan. An unexpected bonus from this has allowed for the Adaptation Plan to take on board recent developments in NI particularly with DAERA developing a Climate Change Action Plan with target setting, guidance on measuring and reporting on carbon emissions and taking actions on climate mitigation as well as adaptation. The Council's final Workshop of Step 3 is now planned for May 2024 and the final Draft Adaptation Plan will be completed and presented to Council before the summer. There has been a recent restructuring within the Council and a new Directorate of Sustainability and</p>

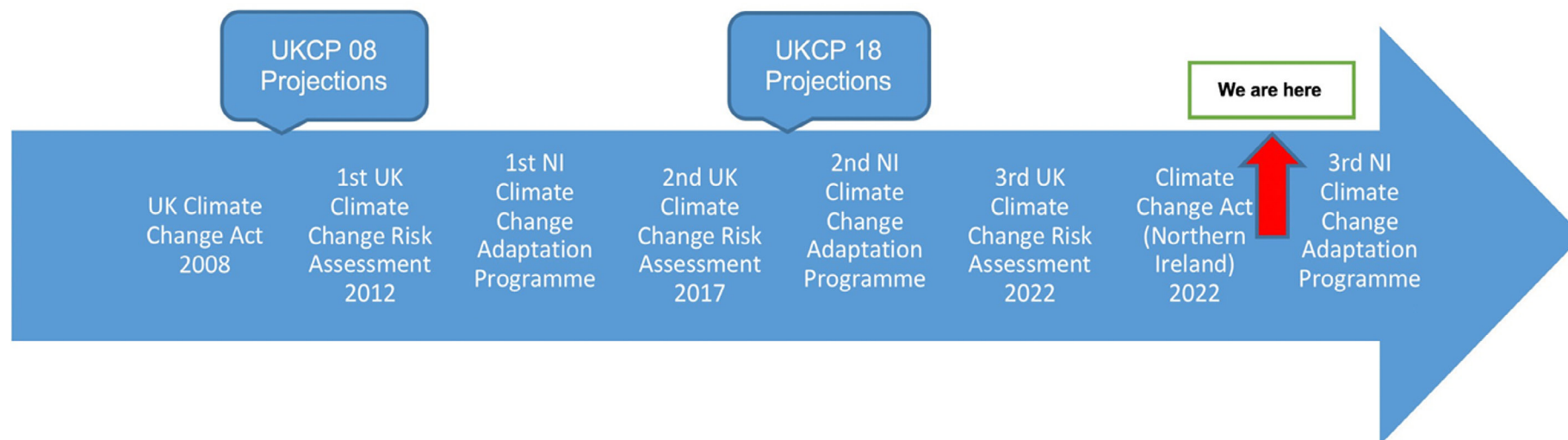
Council	Action	Indicative Timeline	RAG Status	End of Programme Assessment of Progress
				Environment has been established with a Director of Sustainability and Environment, Assistant Director of Sustainability, Head of Sustainability and Sustainability Officer posts in place leading on work on Climate Adaptation and Mitigation. This also brings together Sustainability and Environment with Maintenance and Facilities management as well as Waste and Emergency Planning which could be a positive development in terms of adaptation actions involving facilities, services and maintenance. Climate NI have provided Council support with Climate Adaptation and will now offer support on Mitigation Climate NI provided accredited Climate Emergency Training to Councillors and Council staff.
	Account for Climate Adaptation within Local Development Plan (LDP).	Ongoing		Several meetings have taken place with Senior Planners including the Head of Planning in the Council to inform them of the Climate Adaptation Programme and get buy-in and input into the process, as well as incorporating Climate Adaptation into Planning and the Local Development Plan. Engagement from and with Planners has been positive and a Senior Planner who has responsibility for developing the Local Development Plan has been a member of the Core Working Group on Adaptation as well as taking part in the Workshops and meetings on Risk Assessments/Statements. The Newry, Mourne and Down Local Development Plan 2030 is in the process of being drafted with extensive consultation being carried out with key stakeholders and the community. Climate change, climate adaptation, and related issues are being considered in the process and the Plan is subject to a Sustainability Appraisal, a Habitats Regulation Assessment as well as a possible Strategic Environmental Assessment.

Council	Action	Indicative Timeline	RAG Status	End of Programme Assessment of Progress
Causeway Coast and Glens Borough Council	Development of Climate Adaptation Plan.			Causeway Coast and Glens Borough Council acknowledged the scale of the climate crisis in 2021 and agreed to establish an all-party Working Group to investigate issues raised. The Climate Emergency Forum (CEF) was formed and comprised both members and officers and meets quarterly. In 2022 Council made the decision that going forward, all new buildings will be built to meet the net zero carbon emissions standard. In June 23, Council formed a Climate Action Team (CAT) which comprises officers from each directorate working together to assess the current need within all Councils functions, highlighting the necessary resources required to meet its new climate statutory requirements and secure pathways to meet climate change - both mitigation and adaptation actions. In 2024 Council are recruiting a new Climate Change Lead Officer who will co-ordinate and manage Council's climate responsibilities both statutory and non-statutory initiatives across all of its functions.
	Account for Climate Adaptation within Local Development Plan (LDP).			When deciding on planning applications, the Council will continue to apply existing legislation, regional planning policy and guidance so as to ensure that all development proposals across the Borough are undertaken in a sustainable manner, embedding mitigation and adaptation to climate change, where relevant. The Council is preparing its own Local Development Plan (LDP) that will take account of regional legislation, policy and guidance relating to mitigation and adaptation to climate change. When adopted, the LDP will govern all planning decisions, guiding development proposals across the Borough in a sustainable manner. The Council's planning department continues to collate and contribute to the overall Council input into DfI's Annual Reporting on its "Sustainable Water: A Long-Term Water Strategy for Northern Ireland (2015-2040) Implementation Plan".

CHAPTER 7: Next steps and forward look to Government response to CCRA3

Climate adaptation programmes follow a five-year cycle in line with the legislative requirements of the UK wide Climate Change Act 2008, and in response to the cyclical publication of Climate Change Risk Assessments as illustrated in the timeline (Figure 3) below.

Figure 3: Climate Change Adaptation Programme cycle.



The second Northern Ireland Climate Change Adaptation Programme (NICCAP2) was published in 2019 in response to the Second UK Climate Change Risk Assessment (CCRA2) and covered the five-year period to 2024.

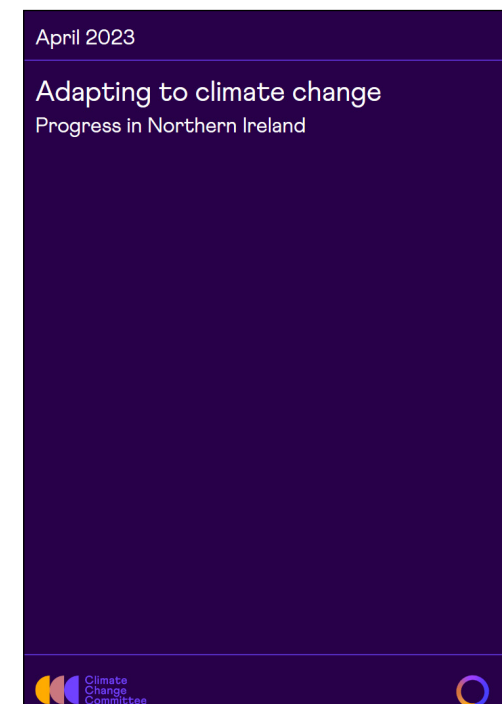
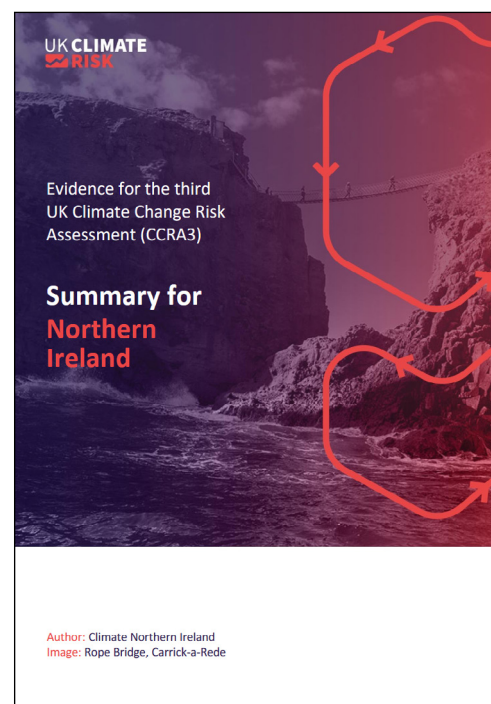
The Third UK Climate Change Risk Assessment (CCRA3) was laid in Parliament on 17 January 2022 by the UK Government in line with section 56 of the Climate Change Act 2008. This was following the earlier publication of the UK Climate Change Committees (CCC) independent assessment of the UK Climate Risk which they published in June 2021 in line with section 57 of the Act.

Separately, in advance of the requirement of section 48 of the Climate Change Act (Northern Ireland) 2022 commencing, and with the agreement of NI Executive Departments, the Department of Agriculture, Environment and Rural Affairs (DAERA) commissioned the CCC to undertake an independent assessment of the NICCAP2 which was published in the Spring of 2023.

The findings of that independent assessment and its recommendations have been used in combination with the latest UK Climate Change Risk Assessment (CCRA3) to inform the development of the Third Northern Ireland Climate Change Adaptation Programme (NICCAP3) in line with the requirements of section 60 of the Climate Change Act 2008, which is due to be published in 2025.

The findings of this end of programme report of NICCAP2 will be used to make a high-level assessment of progress made, in delivering on adaptation aims and objectives, for inclusion in NICCAP3 as required by section 60 of the Climate Change Act 2008.

The risks identified for Northern Ireland in the CCRA3, as well as recommendations from the CCC can be found at



CCRA3 - <https://assets.publishing.service.gov.uk/media/61e54d8f8fa8f505985ef3c7/climate-change-risk-assessment-2022.pdf>

Independent Assessment of UK Climate Risk - <https://www.theccc.org.uk/publication/independent-assessment-of-uk-climate-risk/>

Independent Assessment of UK Climate Risk - Summary for Northern Ireland
<https://www.ukclimaterisk.org/wp-content/uploads/2021/06/CCRA-Evidence-Report-Northern-Ireland-Summary-Final.pdf>

Independent Assessment of Adaptation progress in Northern Ireland -
<https://www.theccc.org.uk/publication/adapting-to-climate-change-progress-in-northern-ireland/>

ANNEX - Acronyms & Abbreviations

ACRONYM / ABBREVIATION	MEANING
AFBI	Agri-Food and Biosciences Institute
AGEO	Atlantic Area Platform Geohazard Management
AI	Artificial Intelligence
AICBRN	All-Island Climate and Biodiversity Network
AIPP	All-Island Pollinator Plan
ASSI	Areas of Special Scientific Interest
ATV	All-Terrain Vehicle
AWP	Approved Work Program
BBSRC	Biotechnology and Biological Sciences Research Council
BCA	Belfast City Airport
BGS	British Geological Survey
BHC	Belfast Harbour Commissioner
CABB	Co-operation Across Borders for Biodiversity
CAFRE	College of Agriculture Food & Rural Enterprise
CANN	Collaborative Action for Natura Network
CAP	Conservation Action Plan
CAT	Climate Action Team

ACRONYM / ABBREVIATION	MEANING
CCC	Climate Change Committee
CCRA	Climate Change Risk Assessment
CEF	Climate Emergency Forum
CFB	Coastal Flood Boundary
C.L.I.M.A.T.E.	Collaborative Learning Initiative Managing and Adapting to the Environment
CMM	Capability Maturity Model
CMP	Conservation Management Plan
CNCC	Council for Nature Conservation and the Countryside
CO-ADAPT	Adaptive management of endemic coinfections in ruminant livestock under climate change
COMPASS	Collaborative Oceanography and Monitoring for Protected Areas
CVI	Climate Vulnerability Index
DAERA	Department of Agriculture, Environment and Rural Affairs
DCSDC	Derry City and Strabane District Council
DfE	Department for the Economy

ACRONYM / ABBREVIATION	MEANING
DfI	Department for Infrastructure
DMRB	Design Manual for Roads & Bridges
DoH	Department of Health
dPS	draft Plan Strategies
DSD	Digital Services Division
DSS	Decision Support System
EB-MSP	Ecosystem-Based Maritime Spatial Planning
EFS	Environmental Farming Scheme
EQIA	Equality Impact Assessment
EU	European Union
FAR	Feed Advisor Register
FEW	Food, Energy and Water
FMP	Fisheries Management Plan
FODC	Fermanagh and Omagh District Council
FRMP	Flood Risk Management Plan
FSA	Food Standards Agency
GES	Good Environmental Status
GSNI	Geological Survey of Northern Ireland
Ha	Hectares
HEA	Higher Education Authority (Ireland)

ACRONYM / ABBREVIATION	MEANING
HRA	Habitats Regulations Assessment
ICES	International Council for the Exploration of the Sea
IE	Independent Examination
IF	Inland Fisheries
IGFS	Institute of Global Food Security
INTERREG	Interregional Co-operation Programme
IUKSG	Ireland and United Kingdom Sourced and Grown
LA	Local Authority
LCCC	Lisburn & Castlereagh City Council
LDP	Local Development Plan
LGCAN	Local Government Climate Action Network
LIDAR	Light Detection and Ranging
LIFE	L'INSTRUMENT FINANCIER POUR L'ENVIRONNEMENT (financial instrument of the European Union)
MarPAMM	Marine Protected Areas Management and Monitoring
MCC	Mayo County Council
MEA	Mid & East Antrim
MEABC	Mid & East Antrim Borough Council
MFD	Marine and Fisheries Division

ACRONYM / ABBREVIATION	MEANING
MOSES	Maritime, Ocean Sector and Ecosystem Sustainability
MPA	Marine Protected Area
M-NEX	Moveable Nexus
NED	Natural Environment Division
NI	Northern Ireland
NICCAP	Northern Ireland Climate Change Adaptation Program
NIEA	Northern Ireland Environment Agency
NIEL	Northern Ireland Environment Link
NIFRA	Northern Ireland Flood Risk Assessment
NIFRS	Northern Ireland Fire and Rescue Service
NIGTA	Northern Ireland Grain Trade Association
NIHE	Northern Ireland Housing Executive
NILGA	Northern Ireland Local Government Association
NIMFT	Northern Ireland Marine Task Force
NIW	Northern Ireland Water
NPA	Northern Periphery and Arctic
NYU	New York University
OEP	Office for Environmental Protection

ACRONYM / ABBREVIATION	MEANING
OREAP	Offshore Renewable Energy Action Plan
PAC	Planning Appeals Commission
PH	Public Health
PIT	Passive Integrated Transponders
PSNI	Police Service of Northern Ireland
QUB	Queens University Belfast
QUBBES	Quantification of Blanket Bog Ecosystem Services to Water
RAG	Red, Amber, Green
RBMP	River Basin Management Plan
RoI	Republic of Ireland
RSPB	Royal Society for Protection of Birds
RSUA	Royal Society of Ulster Architects
SA	Sustainability Appraisal
SAC	Special Areas of Conservation
SALINA	Hydrodynamic Assessment and Prediction of Dynamic Response
SAPHIRE	Sensor Application to Peatland Hydrology in Remote Environments
SCaMP NI	Sustainable Catchment Area Management Practice Northern Ireland

ACRONYM / ABBREVIATION	MEANING
SEA	Strategic Environmental Assessment
SEUPB	Special EU Programmes Body
SFI	Science Foundation Ireland
SIT	Strategic Insight Team
SMG	Stormwater Management Group
SOLACE	Society of Local Authority Chief Executives and Senior Managers
SPA	Special Protected Area
SPARC	Sustainable Parasite Control in Grazing Ruminants
SPPS	Strategic Planning Policy Statement
SuDS	Sustainable Drainage Systems
TalX	Transboundary Adaptation Learning Exchange
TCFD	Task Force on Climate-related Financial Disclosures
The Act	UK Climate Change Act 2008
UCC	University College Cork
UK	United Kingdom
UKCP	UK Climate Projections
UKFS	United Kingdom Forest Service
UKRI	UK Research & Innovation
UN	United Nations

ACRONYM / ABBREVIATION	MEANING
UW	Ulster Wildlife
WDPD	Water and Drainage Policy Division
WWF	World Wildlife Fund
WWT	World Wildlife Trust

Climate Change and Green Growth Policy Division
Department of Agriculture, Environment and Rural Affairs (DAERA)
1st Floor, Clare House
303 Airport Road West
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**Fairmin, Environment
an' Kintra Matthers**