

# MAPPING OUR PLACE

Using participatory mapping to gather local knowledge of climate impacts, and understand community priorities for climate adaptation in North Uist, Outer Hebrides

This case study shares our experience of using participatory mapping to gather lived experience and local knowledge of climate change impacts and community priorities for adaptation in North Uist. It provides details of the approach taken, key learning and recommendations for use in other locations and contexts.



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## Background

Adaptation Scotland and the Outer Hebrides Community Planning Partnership's (OHCPP) Climate Change Working Group (CCWG) have been working together since 2019 to develop adaptation planning in the Outer Hebrides. The partners are strongly committed to involving local communities in adaptation planning in the years ahead.

During summer 2021 a pilot community involvement project was run in North Uist (also encompassing Benbecula and Berneray), which aimed to:

- Test new approaches to involving community members in adaptation planning
- Increase local awareness and deepen the CCWG's evidence base by gathering community members' local knowledge and lived experience of how climate impacts their place, what they feel is important to protect and how.



Machair at Traigh Hornais, North Uist, Western Isles © Lorne Gill

- Inform future community involvement work across the Outer Hebrides

## Why participatory mapping?

Local people are experts on their own places and embedding their knowledge and lived experiences in adaptation planning helps ensure that local adaptation actions are effective.

Participatory mapping – where maps are co-created by local communities, often with the support of an intermediary organisation – is widely used to support locally led adaptation planning around the world. Maps can be a powerful and accessible way to visualise people's knowledge about their place, build understanding and cohesion about what is important to protect in a changing climate, and help empower communities to be involved in decision making. The process itself is also important, as it

requires open and honest dialogue, and ideally a broad and representative section of the community to participate. Adaptation Scotland were keen to explore this approach with partners in the Outer Hebrides to see whether this could provide a helpful way to structure community involvement for them going forward, and to be able to share this learning with other partners we are working with on place-based adaptation projects.

## What we did

### 1) Formed a project team and developed a plan

The CCWG formed a project team to plan and deliver the pilot project. A range of partners provided strong support and commitment including:

*Nature Scot* who recruited a graduate placement recruited to coordinate OHCPP CCWG activities and supported the pilot throughout, leading on connecting with partners in North Uist, co-developing the project communication resources and co-delivering the workshops and engagement sessions. *Nature Scot's* Gaelic officer also assisted by translating materials into Gaelic.

*Adaptation Scotland* led on designing the participatory mapping resources and session plans, delivered adaptation capacity building sessions for local partners, and recruited a volunteer to support the project who helped deliver workshop sessions and created ArcGIS maps using community inputs.

**Làn Thìde** partners including Western Isles Libraries and An Lanntair and Taigh Chearsabhagh arts centres who provided connections to a local designer, sense checked materials and session plans, took part in capacity building activities and hosted materials and events.

A series of activities were planned which followed a loose flow of

- 1) Building understanding of climate impacts and adaptation with local organisations
- 2) Collecting local data about climate hazards, impacts and opportunities to adapt using maps
- 3) Using the maps generated to talk about adaptation priorities and ways forward

### 2) Identified local networks and contacts on North Uist

North Uist was selected as the pilot area, as the CCWG had previously engaged with community members at a North Uist community AGM, and it was important that the conversations started during this event had a platform to be further explored through the mapping workshops.

We completed a stakeholder mapping exercise to identify local groups, events, venues and networks that could potentially be part of the pilot project and help us connect with a diverse range of community members. The following stakeholders were able to be involved:

- Western Isles Libraries volunteered to host the mapping activity in Lionacleit Community Library, and share materials via the mobile library service.
- Hebrides International Film Festival (HIFF) included the project and mapping activity within the film festival programme and encouraged attendees to contribute
- Taigh Chearsabhagh arts centre staff took part in adaptation capacity

building activities to be able to better engage with visitors about climate resilience challenges

- North Uist Development Company (NUDC) community members participated in a workshop series of mapping activities

### 3) Developed mapping and communication resources

We developed a range of map-based activities and resources to be used as part of workshops with community members and at the library and film festival. We worked with a local graphic designer to make sure that the resources were accessible and attractive, and ensured materials were available in both Gaelic and English, given the high proportion of Gaelic speakers in the area, particularly amongst the elder community.

For in person events, large, printed base maps of North Uist and surrounding islands were created that community members could use to pinpoint where they had experienced impacts from climate-induced hazards such as flooding, storms, landslides, drought and wildfires. To do this, they used 'climate tags' which also captured

information about who and what might be vulnerable to these hazards, and why. The materials were designed with a distinct visual style that was intended to attract people to interact with them, while still being detailed enough for them to record their inputs accurately.

For online events we created a digital whiteboard with a map, which participants could draw on and add sticky notes to. We also produced a short handout describing climate information and examples of adaptation actions which was shared with participants at both the in person and digital events.

## 4) Ran engagement activities

A series of both in-person and online activities were held to attract community members with different needs, with approximately 50 community members from North Uist, Berneray and Benbecula participating. Although some participants were already knowledgeable about climate change issues, collaborating with a local film festival and library meant the workshops successfully captured insights from participants who might not usually engage in climate workshops but who have a vast knowledge about and interest in their local area. Throughout the activities,

emphasis was placed on gathering and learning from local knowledge and lived experience, and the importance of valuing this as equally important to adaptation planning as scientific evidence. Activities included:

**Interactive mapping display at Lionacleit Library:** A screen was set up showing a simple video presentation with an overview of the project, and introducing the topic of adaptation, drawing on materials from our **Climate Ready Places resources**.

There was also a physical map which visitors added climate tags to, along with acetate layers which could be annotated with more detail of their experiences of climate impacts, what they want to protect, and what adaptation might mean based on what is important to them and their community. Library staff were then able to remove and replace layers as required. Inputs were encouraged in a variety of other formats such as drawings by providing lots of stationary materials, along with the climate tags. The display was available as a drop-in activity for library visitors, and was also attended by classes from the local primary and secondary schools.



## In person mapping workshops with Hebridean International Film Festival attendees:

Two in-person workshops were run with HIFF attendees. The first consisted of a short presentation about the project, and an overview of climate information and adaptation, before participants were asked to use the base maps and climate tags to record their experiences of climate impacts, and who/what is vulnerable to them. The second workshop used the annotated maps as a prompt to then discuss what people felt was important to protect and flourish in a changing climate, and to begin to discuss adaptation priorities.



Base map of North Uist, produced by a local graphic designer. This was annotated by community members using 'climate hazard' tags



Examples of 'climate tags' for community members to capture their local knowledge



Mapping display at Lionacleit Library



Mapping activity at HIFF



Mapping workshop at HIFF

**Online mapping workshops with NUDC community members:** Online focus group discussions using the digital whiteboard were held with NUDC members. The digital map was populated with inputs from the HIFF participants, which gave NUDC members a chance to respond to these and add their own, before taking part in facilitated discussions on existing community capacities to adapt, and prioritising which capacities they would like to strengthen.

**Consolidation workshop:** A final online workshop was held which was open to all previous participants. At this session there was reflection on the issues mapped via the other activities, and discussion and consolidation of priority capacities to strengthen to adapt to the changing climate. Participants also provided recommendations for how to

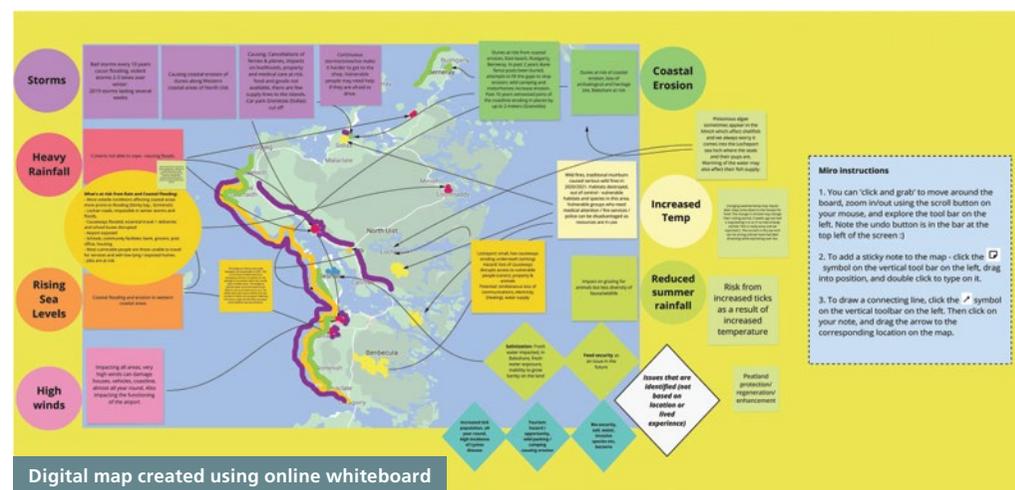
better engage communities in climate adaptation, such as:

- The need to have relevant examples of what successful/unsuccessful adaptation action looks like, to help people better visualise and contribute their ideas.
- Making communication and language more accessible, with appropriate use of Gaelic to enable more meaningful conversations with those on the ground – this is particularly important for the elder community, crofters and those from Uist.
- Continuing to use the libraries as engagement hubs, as they have significant potential for outreach to young people and the wider public also.

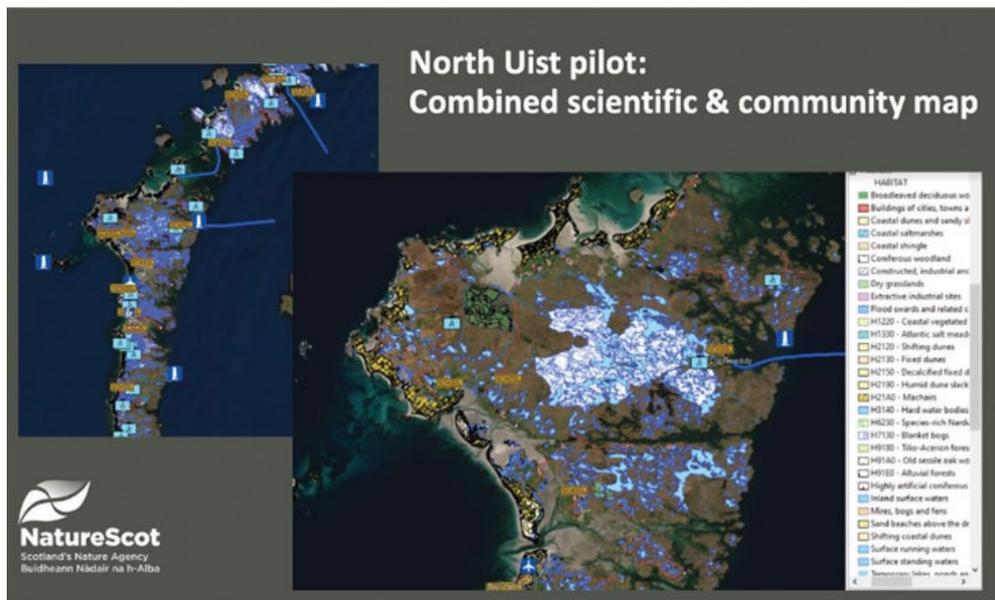
- Overcoming consultation fatigue by making better use of informal spaces for people to access information, engage in activities and connect on climate issues and actions.

## 5) Compiled feedback

Following completion of the engagement activities, an ArcGIS map was developed to visualise the community's local knowledge of climate hazards and impacts. Community inputs from the mapping activities were displayed as a layer alongside other data layers provided by CCWG members visualising flooding, drainage, coastal erosion, natural resources, and community assets/infrastructure. Community knowledge both substantiated and enriched the existing scientific datasets, helping to locate more precisely how and where climate hazards impact and overlap, identify who/what is vulnerable and what is required to strengthen capacities to adapt. For example:



Digital map created using online whiteboard



**North Uist pilot:  
Combined scientific & community map**

- More storms, heavier rainfall and increased coastal erosion are affecting the northern and western areas of North Uist and Benbecula, with flooding, damage and closure of specific causeways, bridges, communications and energy assets such as community wind turbines identified by participants. Enhanced maintenance and improvement of infrastructure was seen to be vital, especially to ensure communication systems and community transportation are made more resilient to storm events.

- Increased temperatures and reduced summer rainfall are impacting inland areas south of Lochport and Benbecula, intensifying wildfire risk, reducing grazing areas for livestock, and allowing pest populations to grow, with higher incidences of Lyme disease being flagged. More locally specific research on risks to food production from salinisation was highlighted as particularly important for the community here.

These insights and recommendations were fed back to the OHCPP Executive Group as part of seeking ongoing support and additional resources for the continuation of the CCWG's adaptation planning activities. They have also formed an important part of the CCWG's evidence base and were analysed as part of the development of the group's Climate Rationale and Case for Action, which sets out the CCWG's summary of the shared climate challenge for the Outer Hebrides.

 [See our guide to running a similar mapping activity in your own community here](#)

 [Download the CCWG's Climate Rationale here](#)

 [Download the CCWG's Case for Action here](#)

### Lessons learnt

The community mapping exercises not only provided locally specific insights about climate hazards, vulnerabilities, and capacities in North Uist, but generated wider learning for Adaptation Scotland and local partners regarding approaches to community mapping, workshop facilitation, and

partnership work for adaptation. **Maps as a tool to empower participants**

The pilot showed maps to be a powerful and emotive visual tool. Framing discussions around a visual representation of participants' places helped them to orient themselves within the topic of climate change adaptation and allowed them to identify and explore issues the workshop facilitators were often unaware of. This in turn helped to empower participants to feel confident in discussing solutions and action.

The sense of familiarity, identity, and ownership generated by the maps also gave space to emotional responses from some participants, particularly when discussing climate hazards and who/what is vulnerable. This helped build relationships between participants, but it was important that facilitators were prepared to effectively and sensitively handle any emotions the maps exposed. The most productive discussions in the workshops were when potentially disheartening emotions such as fear and anxiety were transformed into more positive and hopeful emotions through relationship building and mutual exploration of solutions.

## The importance of continuity and accountability in building relationships

A guiding principle of the North Uist pilot was for the CCWG to act as an accountable and trustworthy group for communities to share their stories with. Building a positive rapport with and trust between facilitators and participants was crucial to enabling honest and productive discussion. Although workshops could be attended and understood in isolation, ideas were richer and relationships stronger between participants who returned for more than one workshop in the series. The continuity and opportunity to build on ideas in multiple workshops helped develop confidence and trust for both participants and facilitators.

## The co-benefits of working with creative partners

Collaborating with the Làn Thìde partnership significantly increased the reach, diversity, and local relevance of events, demonstrating the effectiveness of such creative partnerships for community involvement. Làn Thìde partners facilitated the partnership with

the Hebrides International Film Festival, trialled and sense checked workshop and mapping materials, hosted the space in Lionacleit Library; and provided locally sensitive additions to activities, such as Gaelic translated material. Their input was also appreciated when designing activities to be safe and deliverable in the context of the ongoing COVID-19 pandemic.

## Impact

Although the North Uist pilot only illustrates a snapshot of the work needed to further engage communities across the Outer Hebrides, The Làn Thìde and CCWG collaboration using participatory mapping has provided important insights and initial recommendations for climate adaptation, demonstrating how vital it is to prioritise space for local knowledge and expertise in adaptation activities, and the importance of ensuring communities and local groups are able to build upon their own capacities and networks to adapt. This is particularly important for places such as the Outer Hebrides, where individual islands are very distinct, and climate impacts therefore vary across the region.

Visualising the community's inputs alongside other more 'traditional' forms of evidence through the use of ArcGIS maps has demonstrated how closely local knowledge can validate and enhance scientific and organisational data sets. The use of maps as visual tools and the emphasis on valuing learning and lived experience from local people also helped community members understand their own capacity to adapt and contributed to the co-creation of a local climate evidence base for the CCWG.

## Recommendations and next steps

Adaptation Scotland found this process to be extremely valuable in helping test new approaches to involving communities in adaptation planning and deepening our partners' evidence base by building in local knowledge and insights. We are keen to explore ways to further develop participatory mapping processes to help partners gather and embed lived experience and local knowledge in their place and risk-based adaptation work. The pilot has helped identify logistical challenges, opportunities and the



Benbecula from South Uist © Lorne Gill/NatureScot

resources required to replicate this approach for the wider Outer Hebrides, or elsewhere.

Appropriate resourcing is ultimately vital: the success of the North Uist pilot was largely dependent on the good will and commitment of partners and volunteer time. To repeat it would require dedicated funding and staff time, particularly to ensure as wide a range of participants as possible are able to engage.

While there was some involvement with young people and native Gaelic speakers through the pilot activities, additional and sustained resource would enable these to be made more accessible and inclusive for a wider range of people, particularly those most vulnerable to the impacts of the changing climate. Working with local creative partners helps increase reach, and ensure that workshop materials and venues are accessible and engaging. There is also continued work required to sensitively explore and resolve the tensions that can arise when local lived experience is presented alongside more 'traditional' forms of evidence.

Adaptation Scotland is looking forward to continuing to work with partners in the Outer Hebrides as they further develop their strategy for involving communities to ensure adaptation action in the islands is based on local realities and needs to enable a safer, healthier and flourishing Outer Hebrides.

## Funding & partners involved

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## Further references

[View the full story of Adaptation Scotland's work with partners in the Outer Hebrides to date.](#)

[See our guide to running a similar mapping activity in your own community here](#)

[www.lanthide.org/](http://www.lanthide.org/)

[www.cne-siar.gov.uk/news/2019/september/new-climate-change-group-in-the-outer-hebrides/](http://www.cne-siar.gov.uk/news/2019/september/new-climate-change-group-in-the-outer-hebrides/)

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# Adaptation Scotland

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Adaptation Scotland is a programme funded by the Scottish Government and delivered by Sniffer

