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Climate Change and UNESCO Heritage (CCUH) Project



Final Evaluation Report
September 2025



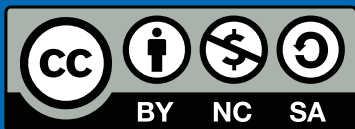
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Climate Change and UNESCO Heritage (CCUH) Project
Final Evaluation Report
September 2025

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Cover photo: The Futurescapes Exhibition at Canterbury UNESCO World Heritage Site.
Credit: Graham Hogg

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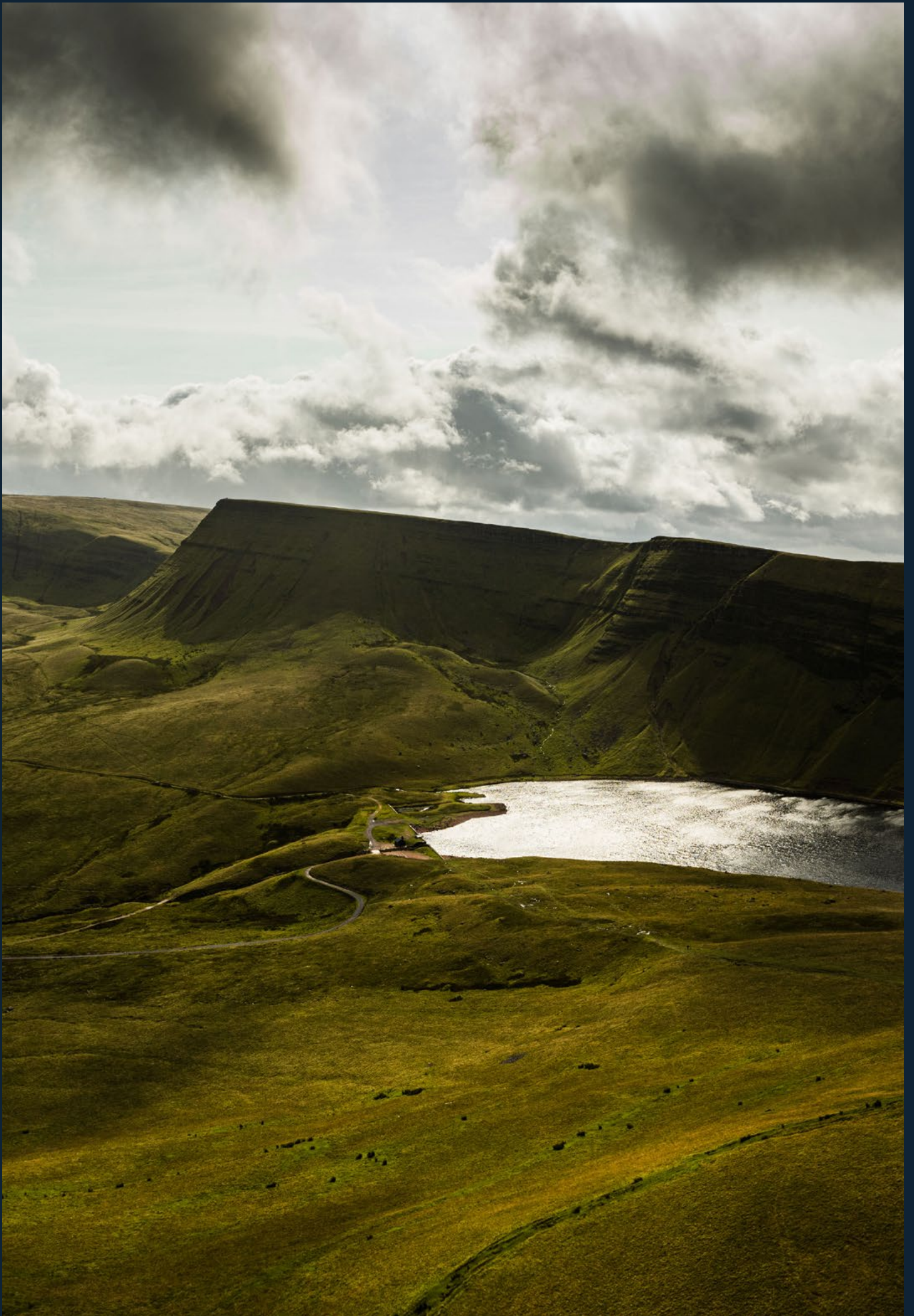
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Foreword

Climate change is rapidly reshaping landscapes, cultures, and communities worldwide. UNESCO sites, as custodians of our shared cultural and natural heritage, are often at the frontline of these changes. While they face acute risks, they also represent something extraordinary: a global network of places where culture, nature, and communities come together.

UNESCO sites span entire landscapes and seascapes, connect rural and urban areas, and bring together partners from governments, civil society, science, and business. This breadth makes them uniquely placed to test how diverse actors can collaborate in practice – offering models for solutions that extend far beyond their boundaries.

The Climate Change and UNESCO Heritage (CCUH) Project set out to test new ways of building participatory governance in UNESCO sites – bringing people, communities, and institutions together to develop integrated responses to the interconnected impacts of climate change on cultural and natural heritage. At the same time, it explored how culture and heritage can help localise global climate challenges, grounding them in the lived experience of places and communities while linking them to wider systems of change.

Over 18 months, working across three UK UNESCO designations, the project piloted methods for combining cultural and natural heritage with data, governance, and participatory practice. What we discovered was clear: cross-sectoral work does not depend on complex or “flashy” innovations. It depends on getting the basics right – accessible tools, trusted spaces for dialogue, and shared information that can underpin integrated decision-making.

This report evaluates both the project and its underlying assumptions. It highlights the complex relationship between climate change and cultural heritage, and how each UNESCO site’s unique

character shapes responses. The evaluation shows that while shared datasets and participatory methods cannot replace the hard work of building relationships and making collective choices, they can provide the foundations for it. Data and tools are not ends in themselves: they are catalysts that underpin wider societal change by enabling people, communities, and organisations to work together more effectively.

The open-source tools, approaches, and learning generated through CCUH are designed to be adapted and built upon. They confirm that UNESCO sites are indeed “living laboratories” – but they also reveal something deeper: the power of culture and heritage to connect people and to root sustainability transitions in place.

The UK’s work through CCUH has advanced 18 months ahead of comparable international initiatives and is already shaping a new €200 million European programme on Climate Change and Heritage. By sharing this report, we hope to extend that momentum: protecting the past, while building the partnerships, practices, and governance models necessary for a more sustainable future. Finally, we hope that the knowledge, experiences, inspiration, relationships, insight and learning that this ambitious pilot project has generated during its lifetime can be foundational for future collaboration in this vital area of work.

Matt Rabagliati

UK National Commission for UNESCO



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Executive Summary

Left: The Climate Change and UNESCO Heritage Team visiting Vindolanda Fort to hear about the Heritage-Funded MAGNA project, exploring how climate change affects the preservation of Roman archaeology and heritage across Hadrian's Wall UNESCO World Heritage Site. *Credit: Matt Rabagliati*

1.1 Introduction

The Climate Change and UNESCO Heritage (CCUH) project was delivered by the UK National Commission for UNESCO (UKNC) in partnership with the Department of Culture, Media and Sport (DCMS) between February 2024 and July 2025, supported by the Department for Science, Innovation and Technology (DSIT), and with £1.8m funding from HM Treasury's Shared Outcomes Fund (SOF).

By working with government departments, agencies and experts at a national level, and through detailed place-based working in three UNESCO designation pilot sites, the project tested new ways of building participatory practice to develop integrated responses to climate change impacts on cultural and natural heritage.

1.2 Methods

The project evaluated a series of interventions using a Realist approach (Pawson & Tilley 1997), which accounted for intentional differences at pilot site level by considering what worked, for whom, in what circumstances, and why. The evaluation centred on a central hypothesis focusing on the role and impact of active stakeholder engagement on informed collaborative action, and was guided by a set of research questions.

Overall, the project was situated within a Theory of Change to describe movement towards the conditions required to support participatory climate action and adaptation in the long term. This reflected the fact that large scale systemic change would take place over a longer timeframe than the project's 18 month duration.

1.3 Key Findings from the Interventions

The CCUH project developed and tested a series of interventions at pilot site level, comprising participatory climate adaptation models, data and digital resources, creative stakeholder engagement approaches, and a complementary brace of national developmental activities.

An evaluation of the impact of these interventions produced credible evidence supporting the project's central hypothesis: namely, that involving stakeholders in CCUH activities and interventions enhanced an understanding of climate threats and opportunities, and helped to foster more effective and engaged collaboration.

The following conclusions were drawn regarding the intervention areas:

Participatory Models for Joint Working

The project commissioned UCL Climate Action Unit (CAU) to co-design interventions with each pilot site, providing a facilitated participatory process for engaging with partners in each designation.

The intervention was positively received by all pilot site teams; the evaluation found strong evidence to suggest that the bespoke participatory workshops had:

- enhanced local understanding of climate threats, and potential responses, through careful facilitation and cross-disciplinary discussion.
- Established local frameworks for effective partnership working and collaboration.

Understanding, Developing and Supporting Data and its Uses

CCUH data consultants, Nixox Ltd, conducted a data audit and ecosystems mapping exercise with several national government departments and agencies / bodies. A data audit was conducted at pilot site level, and followed by detailed developmental work to identify, co-develop, and roll-out a series of open-source data tools and resources; these were intended to underpin integrated designation-scale data management and use.

A range of data and digital tools were developed and tested as part of this intervention, with mixed results reported. Although further development and refinement is needed to realise its promise, there was strong evidence to suggest that aspects of this work had potential to:

- Support greater understanding of data awareness, accessibility and use value

- Enhance understanding of climate threats and areas of commonality / divergence
- Establish more effective ways to collaborate with local partners regarding the sharing and application of data

Stakeholder Mapping, Analysis & Creative Engagement

The project commissioned Lateral North Ltd to design and deliver a series of design-led stakeholder mapping and engagement activities that explored how people, communities, and organisations perceived climate change issues at a local level. The approach also aimed to explore how creative practice could identify new insights and inform local climate action initiatives.

Although repeatable and scalable resources have now been created, there was limited evidence to suggest that the design-led approaches trialed for stakeholder mapping and engagement helped pilot site teams to comprehensively:

- Identify and map local stakeholders and communities with reference to natural and cultural heritage and climate change
- Understand more about perceptions and attitudes towards climate change at community level across designations, including through the use of artistic interventions
- Establish approaches and ways of working to support greater collaboration and participatory place-based climate action and adaptation

Complementary national level activities

National activities included the production of an independent research report, Liveable Futures, exploring the connections between climate change, heritage and related areas of work; and the development of a UNESCO Climate Action and Sustainability Research Agenda, underpinned by a review of recent evidence and thinking on climate action, sustainability, and nexus approaches.

The evaluation found strong evidence to suggest that complementary national interventions positively impacted upon:

- An understanding of the strategic and systemic landscape relating to climate change and heritage
- An understanding of the evidence base and research agenda relating to UNESCO designations as sites for testing innovation regarding sustainability challenges
- The potential for more effective cross-sectoral collaboration, through an increased appreciation of systemic challenges and opportunities, and clarity on how research could be cohesive and mutually reinforcing

1.4 Key Findings from the Evaluation

Through detailed engagement, discussion and testing, the project also produced a set of overarching observations relating to collaborative climate action within a cultural and natural heritage context; namely:

The role of heritage as a strategic enabler

The project was able to leverage cultural and natural heritage designations such as UNESCO sites as convening platforms for cross-sector dialogue and management/planning, with this positioning providing climate-heritage discussions with legitimacy. This was found to support and engage a broader range of actors throughout the project, and confirmed the assumption that heritage can act as a catalyst for integrated climate action.

The realisation that complex, interconnected challenges require place-based approaches

By establishing and maintaining site-level governance models and a national interdepartmental steering group, the project was able to test and learn from approaches supporting multi-partner, cross-sector collaboration. Stronger networks, and improved communication channels across government and local partners, were reported, confirming an assumption that collaborative governance can overcome silos. However, the project also noted that long-term sustainability for such collaboration required continued resourcing and political support.

The acknowledgement that data is foundational, but people are the real drivers of change

The project's focus on open, accessible and sharable data tools and resources provided rich insights into the role of data relating to participatory, collaborative practice, and its wider relationship with people. As a result of the project, an increased awareness of data use and gaps was noted, but with data reframed as a facilitator of collaboration, not a substitute for dialogue between partners. This confirmed that data was critical to decision-making, but only when embedded in people-centred processes that enable interpretation, trust and collective action.

1.5 Key Findings from the Process

The project also generated the following key findings relating to the project's approach and delivery:

Joint Working as a Cultural Shift

Effective collaboration requires investment in relationships, trust, and openness, not just technical solutions. Change is fundamentally about people, and approaches to building and sustaining trusted collaboration must be consciously developed.

The project recommends that future cross-government pilots should treat joint working as a cultural shift as well as a technical one, investing deliberately in relationship-building infrastructure (e.g., shared digital platforms, peer-learning events) at the local level as core delivery elements.

Space for Learning

Pilot projects need sufficient time for reflection, absorption, and response to emergent learning, which should be built into delivery timescales. Innovation projects, or projects operating in uncertain environments and/or areas of investigation, should be aware of the importance of safeguarding time for reflection and response. It is also critical to carefully consider definitions of 'success' in pilot initiatives, and on how best to ensure that all learning and outcomes are seen as valid and valuable in supporting learning.

It is recommended that future pilot projects should account for emergent learning as part of active delivery, including opportunities for reflection, responsive project management, and the creation of a safe space to share learning.

Designed-In Cross-Departmental Collaboration

The project benefitted from active engagement and participation from a wide stakeholder base across government and beyond. However, it was evident that support and a willingness to engage could not guarantee consistent participation; cross-departmental collaboration needs intentional infrastructure and clear roles. Representation across a range of project workstreams was impacted by external work priorities and constraints, whilst interest in specific areas of project delivery also understandably varied depending on active delivery phase in play.

It is recommended that planning and governance arrangements for cross-departmental projects should recognise and account for external influences on stakeholder capacity, to effectively mitigate against impact(s) on delivery.

Pragmatism in Complex Interventions

As short term innovation projects often have limited delivery timescales and finite resources, they can realistically test either a limited number of interventions in depth or a larger number in less detail. Pragmatism is essential when considering project scope and ambition, particularly with reference to complex, multi-factor initiatives focusing on emergent learning.

Future complex innovation projects, especially those operating at landscape scale, should consider longer durations or a modular approach to iterative testing and development. Such projects might also benefit from focusing on smaller-scale test-cases within designations to simplify planning and delivery, or a tighter focus on certain aspects of project enquiry (e.g., data tools or participatory working, but not both). Regardless, innovation projects should take a transparent risk tolerant approach to encourage enquiry and knowledge generation.

1.6 Conclusions

The project has contributed to the development of place-based approaches and multi-stakeholder partnerships for addressing 21st-century challenges. It has strengthened the argument for prioritising cultural and natural heritage in sustainable development and climate solutions, and has played a pivotal role in shaping emerging international collaboration on the subject.

The enduring legacy of the Climate Change and UNESCO Heritage (CCUH) Project lies in its contribution to the growing development of place-based approaches and multi-stakeholder partnerships to address interconnected 21st-century challenges.

We are confident that this contribution will include:

- The online tools and resources being accessed and re-used by heritage sites to understand and respond to climate and sustainability challenges that affect the things they value

- The locally hosted tools at the 3 pilot sites continuing to identify, bring together and support partners and communities to collaborate and take positive action
- The CCUH approach scaled up across dozens of countries as part of the British Council's delivery of the work package within the AHRC/UKRI Horizon Europe programme focused on resilient climate heritage
- Continued dissemination of the project's learnings and tools and resources via UNESCO – both directly impacting heritage sites and policy as well as indirectly influencing policy-development on wider partnership and joint working methodology at UNESCO.



The FutureScapes Exhibition in Perth, Scotland. Credit: Graham Hogg



2

Introduction

Left: Hadrian's Wall UNESCO World Heritage Site, one of the three pilot sites for the Climate Change and UNESCO Heritage Project. *Credit: Graham Hogg*

2.1 Background to the CCUH Project

Between February 2024 and July 2025, the UK National Commission for UNESCO (UKNC), an arm’s length body of the Foreign, Commonwealth & Development Office (FCDO), in partnership with the Department for Culture, Media and Sport (DCMS), supported by the Department for Science, Innovation and Technology (DSIT), and with funding from HM Treasury’s Shared Outcomes Fund (SOF), delivered the Climate Change and UNESCO Heritage (CCUH) project.

The project aimed to create the incentives and foundations for the identification of cross-cutting solutions to climate change threats, by bringing together public and private bodies and their data

in three UK UNESCO heritage sites, testing how cultural and natural heritage can act as a catalyst for a participatory, place-based approach to climate change and related systemic challenges. CCUH was built on earlier UKNC research (Sites for Sustainable Development, 2022), which highlighted the potential of UNESCO sites as "living laboratories" for sustainable development and nexus approaches to climate action.

2.2 Aims and Scope

As outlined in the SOF project brief, CCUH set out to respond to the problem that heritage sites and their communities are facing multiple threats due to climate change, compounded by barriers to accessing, using,

Figure 1: SOF and CCUH project scope

Aims (SOF)	Identified Challenges (SOF)	Assumptions (CCUH)	Interventions (CCUH)	Outcomes (CCUH)
<p>Primary aim: Pilot an improved way of joint working between local, public and private partners and local communities in three heritage sites that will enable those sites to identify effective shared solutions to address climate change threat</p> <p>Secondary aim: Deliver a sharable, inclusive model and tools that can be used by other sites to incentivise and support improved joint working and action</p>	<p>Heritage sites and their communities are facing multiple threats due to climate change.</p> <p>This is compounded by:</p> <p>(1) Barriers to the sharing, cataloguing and accessibility of data across public bodies</p> <p>(2) Barriers to making private data usable, accessible and available across the economy</p> <p>(3) Barriers to connecting and utilising data for action in an accessible and meaningful way across diverse local communities</p> <p>(4) Barriers to joint working, particularly on cross-cutting challenges</p>	Heritage sites face multiple, interconnected climate change threats that cannot be managed in isolation	Stakeholder mapping, analysis and creative engagement	Local partners forge stronger, more inclusive networks
		Participatory, cross-sector approaches can unlock new pathways by fostering trust and shared understanding	Participatory models for joint working	Enthusiasm / capacity increases for collaborative practice
			Developing a cross-sector research framework and strategic agenda	Confidence increases to openly and honestly share learning and experiences
		National strategic and systemic analysis	Sociological perspectives on climate change are more valued and well considered	
		Developing open, scalable tools will allow knowledge to transfer beyond pilot sites	Understanding, developing and supporting data and its uses	Partners better understand the quality and value of each others' data
Governance, data and operational functions are often siloed, limiting adaptation capacity	Local intelligence re threats and priorities drives decision-making and shared goals			
			Data access and skills improve for partners and communities	

sharing and connecting data, alongside barriers to joint-working on common challenges.

The project intended to explore whether, and how, heritage can provide credible platforms or foundations for responding to interconnected climate threats. Specifically, the project aimed to:

- Develop open-source, shareable, and reusable data tools and resources;
- Pilot creative and participatory approaches to stakeholder engagement;
- Test governance models for supporting collaboration and climate adaptation.

By testing a series of interventions in real-world UNESCO designation pilot sites, the project aimed to assess both site-based and sectoral outcomes; **Figure 1** provides details of the original SOF aims and identified challenges, the assumptions and interventions being tested by the project, and the expected outcomes of the work.

2.3 Delivery

Adopting a rigorous selection criterion, the project worked with three UK pilot sites, representing different types of UNESCO designation and geographic context:

- North Devon UNESCO Biosphere Reserve
- Fforest Fawr UNESCO Global Geopark
- Hadrian's Wall UNESCO World Heritage Site

Each site collaborated with local partners, communities, and national consultants to co-design and test open-source tools and approaches. These included a FAIR (Findable, Accessible, Interoperable, Reusable) data catalogue, Threats and Opportunities Dashboard, and creative participatory workshops. Testing across varied governance structures, community contexts, and organisational settings supported the longer-term goal of creating resources that are both adaptable to local needs and sufficiently consistent to enable broader collaboration.

Alongside site-level testing, CCUH also piloted new forms of cross-government collaboration. The project established a Steering Group bringing together twelve government departments and statutory bodies (see **Appendix A** for full list), chaired by DCMS. This structure was intended to:

- Create a shared space for departments to address the interdependencies between climate, culture, and heritage.
- Test whether heritage could act as a common policy platform across silos such as environment, planning, data, and community development.
- Generate shared learning and accountability by aligning CCUH activities with departmental strategies.

This interdepartmental aspect was both a strength and a challenge. While it facilitated rare horizontal dialogue across departments, it also exposed the structural difficulties in maintaining collaboration beyond short-term pilots. These issues are examined further in the process findings (see **Section 7**).

2.4 Purpose of this Evaluation Report

This report shares key insights and lessons from the CCUH project. It combines

- **Team reflections:** insights from the project team's direct involvement in delivery
- **Realist evaluation findings:** evidence and analysis structured around the project's evaluation framework (see **Section 3**)
- **Site and consultant outputs:** materials and reflections generated during delivery.

The intention is not only to account for delivery and progress against objectives, but also to provide practical lessons for future heritage-climate initiatives in the UK and internationally.

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DYFODOL

Sut y gallwn
weithio gyda'n
gilydd i greu
GEOPARC
FFOREST FAWR
mwy **gwydn**

How can we **work together**
to create a more **resilient**

FFOREST FAWR
GEO PARK

3

Methodology

Left: Photo from community workshops held across Fforest Fawr UNESCO Global Geopark as part of the Stakeholder Mapping. *Credit: Graham Hogg*

3.1 Introduction

The evaluation of the Climate Change and UNESCO Heritage (CCUH) Project was designed to do three things:

1. **Assess** the delivery of the project's core activities
2. **Test** progress against the outcomes set out in the Theory of Change
3. **Generate lessons** for future heritage-climate initiatives in the UK and internationally.

To do this, the evaluation adopted a Realist evaluation framework (Pawson & Tilley 1997), which asks: *What works, for whom, in what circumstances, and why?*

This approach was chosen by the project team as it is particularly well-suited to complex, place-based interventions such as the Climate Change and UNESCO Heritage Project, where outcomes depend on context and stakeholder responses at national, regional and local levels. The original evaluation outline was provided by **drp Archaeology** and further refined by the UK National Commission for UNESCO (UKNC).

3.2 Realist Evaluation Approach

The realist evaluation framework breaks down evaluation into three interlinked dimensions:

- **Contexts:** the existing conditions that shape outcomes (e.g. governance structures, data maturity, community priorities).
- **Mechanisms:** the interventions introduced by the project (e.g. data tools, participatory workshops, cross-government governance).
- **Outcomes:** intended and unintended results, including changes in confidence, collaboration, knowledge, skills and practice.

By examining the interaction between contexts, mechanisms and outcomes (CMOs), the evaluation moves beyond a simple record of activities to explain why certain interventions worked in some settings and not in others.



Community Workshop in Bideford, North Devon UNESCO Biosphere Reserve. Credit: Graham Hogg

3.3 Central Hypothesis and Research Questions

To determine the impact of project interventions, the evaluation applied the CMO framework to the project interventions trialled at the three pilot sites. This involved analysing how contexts influenced delivery, whether the mechanisms operated as theorised at a pilot level, and what outcomes were observed.

Although CCUH activity sits within an overarching Theory of Change (see **Section 3.4 & Section 5**), the outline evaluation framework recommended that the project focus on a single set of research questions, together forming a central evaluation hypothesis. This hypothesis focused on the role of ‘stakeholder engagement’ practices in unlocking the potential of UNESCO sites as catalysts for participatory, placed-based approaches to climate change:

Central hypothesis:



By involving key stakeholders in existing site-based experiences and lessons learnt, the pilot project increases understanding on climate threats, and establishes more effective and engaged working and collaboration across the heritage/natural sector and local communities.



To test this central hypothesis, the following research questions were used as a guide:

Context

- How does existing governance practice affect how stakeholders interact?
- In what ways does existing social cohesion contribute to the success of stakeholder engagement initiatives?

Mechanisms

- How has stakeholder engagement increased understanding of climate change impacts among project stakeholders?
- What specific experiences and lessons learned have been most influential in improving stakeholder engagement and collaboration?

Outcomes

- How has enhanced cooperation among stakeholders led to the implementation of sustainable and contextually appropriate measures to address climate change impacts?
- What are some specific examples of climate measures implemented as a result of improved stakeholder engagement?

An analysis of how the core project interventions met the central hypothesis is set out in **Section 4** of this report.

3.4 Theory of Change

Whilst the Realist approach aims to understand the effectiveness of the interventions being tested within their appropriate context, CCUH also used a Theory of Change to describe movement towards the conditions required to support participatory climate action and adaptation in the long term.

The CCUH Theory of Change was developed during project design, informed by both the original Shared Outcomes Fund (SOF) bid and by the UKNC’s earlier research, particularly the Sites for Sustainable Development (SSD, 2022) report. That research explored how UNESCO-designated sites could act as “living laboratories” for sustainable development and identified the need for:

- more integrated cross-sector working,
- better use of data and tools,

- participatory approaches that empower communities, and
- stronger governance frameworks to support collaboration.

The Theory of Change has been applied across the project to inform both delivery and evaluation. It articulates the challenges and assumptions behind the project, activities to be introduced during delivery, and the outcomes expected at the end of the project. Importantly, it also looks beyond the term of CCUH to map out the desired longer term impact of the work at site, national, and international levels. Further information on the project's Theory of Change and Logic Model is available in **Section 5, Figures 9 and 10** respectively.

Whilst the project's evaluation framework does not seek to demonstrate evidence against all intended outcomes of the Theory of Change, key findings in support of its core assumptions have been drawn out as part of the evaluation approach. These findings, also positioned within a Realist framework, are set out in Section 5 as important observations and reflections that supplement the key evidence against the central hypothesis.

3.5 Data Collection stages

Evaluation data was intended to be gathered at four stages during the project's 18-month delivery period, employing both quantitative and qualitative methods. As a guide, the evaluation framework recommended the following staged approach, which was then refined and tailored to suit the needs and demands of project delivery:

- **Stage 1:** *The start of a site's onboarding to establish a baseline of the context prior to the intervention.*
 - *This was fulfilled via a two-part baselining survey, distributed to pilot site level stakeholders and national partners in August 2024. However, take up during the summer months presented a challenge, and not all key members of the project community (at pilot site level) had been recruited in time to engage with the questionnaire.*

- **Stage 2:** *After substantial progression of the intervention within a specific site (i.e., a series of internal focus group discussions have taken place) to evaluate usefulness and short-term outcomes of the interventions, and to identify whether any quick changes to the intervention implementation can be made.*
 - *This was instead fulfilled by quarterly 'highlight' monitoring activity at each pilot site, whereby key achievements, challenges, and emerging risks were reported by each site as delivery progressed. In practice, this generally focussed on process monitoring and identifying delivery challenges and opportunities.*
- **Stage 3:** *After all three sites have been convened, to understand the benefits of working across UNESCO sites.*
 - *This was fulfilled informally through observational data arising from 3 x cross-project events, hosted by each site. Agendas provided space for reflective learning and presentations to be shared between participating UNESCO sites.*
- **Stage 4:** *At the end of the project to establish a comparison to the initial baseline, and to measure understandings of success across all sites/stakeholders. This includes identifying outputs and outcomes.*
 - *This was intended to be fulfilled by a repeat of the baselining survey (see 'Limitations'), but was adjusted to comprise x 3 pilot site level case study reports, and an all-project focus-group session held in May 2025.*

3.6 Data Collection sources

In line with the framework, data collection methods have included core surveys, document reviews (i.e., learnings surfaced in reports by project consultants), focus group sessions with project participants, case studies, and observational data. As part of the document review, evaluation has relied directly on the outputs of pilot site interventions, which served as test-beds for participatory and data-driven approaches.

Data sources included:

- **Surveys** – a baseline survey with site managers and stakeholders, plus targeted surveys on data use and threats/opportunities (23 respondents at site-level; 34 respondents across the wider UK UNESCO network).
- **Workshops and participatory sessions** – facilitated workshops by project consultants that generated data on governance processes, stakeholder perspectives, and collaborative potential.
- **Creative stakeholder mapping** – stakeholder engagement workshops (13 sessions, 106 participants) provided relational maps, co-designed “response ideas,” and hyperlocal perspectives on climate challenges.
- **Data audits and discovery sessions** – Niixo Ltd carried out data ecosystem mapping with 10 national departments/agencies, plus designation-level data discovery sessions to identify existing datasets, gaps, and interoperability challenges.
- **Case studies and site reports** – each pilot site produced evaluative case studies capturing reflections on interventions, governance arrangements, and local outcomes.
- **National-level research outputs** – the Liveable Futures study and UNESCO Climate Action & Sustainability Research Agenda provided additional evidence from interviews, desk research, and expert group deliberation.
- **Focus-group session** – project participants engaged with an end of project evaluation session, capturing perspectives on the effect the project interventions had on attitudes, capabilities, confidence, and connection at site level.
- **Observational data** – collated reflections and perspectives from the core project team throughout project delivery.

3.6.1 Triangulation

Data was triangulated across sources to test consistency and surface deeper insights. For example, quotes from case studies by site managers were

cross-referenced with survey results, while consultant deliverables were reviewed alongside site-level reflections and observational data. This helped confirm where evidence aligned, where gaps or tensions emerged, and where future projects might continue to build a stronger evidence base going forward.

3.6.2 Methodology limitations

A key limitation in data collection was the low uptake and timing of the baseline survey at project launch, compounded by the heavy demands placed on stakeholder capacity throughout delivery. Because surveys and interviews were already central to the project’s intervention approach, it was decided that further evaluation-specific questionnaires should be kept to a minimum to avoid overburdening participants.

Given the limited appetite for additional survey activity, the planned endline survey was replaced with two alternative means of collecting data against the project’s central hypothesis: case study reporting by each pilot site and a final focus group session to gather evaluative feedback. This change in approach has meant that direct comparison with baseline data is not possible, though the qualitative data collected provides insights from those with the closest and most relevant experience of the piloted interventions. With this in mind, the evaluation focused on understanding the effects of project interventions in relation to the central hypothesis and research questions by drawing intentionally on insights from a smaller but engaged group of participants.

In addition, while the CMO framework outlines expected outcomes, the compressed 12-month delivery phase limited the ability to assess longer-term behavioural or systemic change. As such, this evaluation has concentrated on how mechanisms and interactions functioned within the project timeframe, and what short-term effect they have had at each site. Where appropriate, some early signals of continued interest and ambition from pilot sites to build on the tools and approaches tested are noted throughout the report.



4

Delivery and Central Findings

As part of the project's commitment to inclusive and creative engagement, an arts commission was undertaken by a local group in North Devon, to capture and reflect young people's perspectives on climate change. *Credit: Karolina Andreasova*

4.1 CCUH interventions: delivery summary

To address SOF identified challenges, the project introduced a series of interventions to test CCUH assumptions and deliver against its intended outputs. The majority of these interventions were delivered at the three UNESCO pilot sites engaged in the project, and were complemented by a number of national, cross-sectoral outputs.

Overall, and despite a challenging delivery schedule, **CCUH achieved all anticipated project outputs within time and to budget.** Table 1 provides a summary of these outputs by intervention area, together with the lead consultant for the work, and the delivery status at project completion.

Some outputs remain at a formative, proto-type state and have therefore been categorised as **'developed'** rather than **'delivered'**; it is recommended that further refinement, development, and testing of these pilot outputs are taken forward in a future project phase:

- The scale and complexity involved in assessing data and digital needs – followed by the design, testing, refinement, and operationalisation of tools across three distinct contexts – exceeded what was feasible within the project's timeframe. As a result, all open-source tools and resources developed remain at proof-of-concept stage and require further testing and development before they can be considered fully operational. These limitations, and their implications for future work, are discussed in detail in **Sections 4.2** and **6.3**.
- Stakeholder mapping and analysis was only partially delivered due to unforeseen leave within the consultancy team, which affected capacity. The design-led approach adopted by the team did, however, generate valuable learning and a reusable engagement toolkit, though this came at the expense of producing a more traditional stakeholder mapping output. Further detail is provided in the intervention assessment in **Section 4.2**.

Table 1: Summary of the delivery status of CCUH outputs

CCUH intervention	SOF outputs	Consultant lead	Delivery status
Participatory Models for Joint Working	Model(s) of governance and partnership working for climate adaptation (x3)	UCL Climate Action Unit	● Delivered
Understanding, Developing and Supporting Data and its Uses	Open source data catalogues and templates (x3) Open source data tools Open source multi-sector threats list and dashboard Guidance on data identification and use National and pilot-site data audits (and survey platform)	Niaxo Ltd	● Developed ● Developed ● Developed ● Delivered ● Delivered
Stakeholder Mapping, Analysis & Creative Engagement	Site level stakeholder mapping and analyses; Stakeholder engagement activities and reusable, adaptable resources (including touring exhibition and toolkit); Examples of responsive, innovative, creative and inclusive projects	Lateral North	● Partly delivered ● Delivered ● Delivered
National Strategic and Systemic Analysis	Report on national strategic and systemic mapping and analyses	Anna Spencer	● Delivered
Development of a Cross-sectoral Research Framework and Strategic Agenda	Updated evidence base on UNESCO climate change and sustainability, including responsive, innovative, creative and inclusive projects Cross-sectoral Research Framework and Agenda	ButCH	● Delivered ● Delivered

4.2 CCUH interventions: an assessment of impact

CCUH's pilot interventions have demonstrated credible evidence in support of the project's central hypothesis: namely, that involving stakeholders in CCUH activities and interventions can enhance understanding of climate threats and opportunities, and foster more effective and engaged collaboration.

As a short-term initiative, this evidence should be interpreted as indicative of a 'direction of travel', rather than conclusive proof of transformed behaviours or working practices; however, early outcomes arising from the project indicate that these approaches offer

a clear potential for longer-term, sustained impact. Evidence supporting this conclusion is presented in two complementary ways:

- **Headline summary** (see table), outlining how individual interventions align with and provide early evidence against the central Realist hypothesis
- **Narrative analysis**, synthesising insights from pilot sites, national-level research, and project activities

To assess the extent to which evaluation data supported the central hypothesis, the following rating system was developed by the project team and applied across analysis to determine the strength of available evidence:

Table 2: Strength of Evidence Ratings and Description

Evidence Rating	Rating Description
Strong Evidence	Corroborating evidence is available from multiple data sources, demonstrating a clear connection between the early outcomes of the interventions (mechanisms) and the central hypothesis
Medium Evidence	Multiple pieces of evidence is available from a single source, demonstrating a clear connection between the early outcomes of the interventions (mechanisms) and the central hypothesis
Limited Evidence	A single or unclear piece of evidence from one source demonstrating some connection between the early outcomes of the interventions (mechanisms) and the central hypothesis, OR, one or more sources suggest the intervention did not fully demonstrate a clear connection between its early outcomes and the central hypothesis.
No evidence	No sources demonstrate evidence of a clear connection between the early outcomes of the interventions (mechanisms) and the central hypothesis, OR one or more sources suggest the intervention did not demonstrate any connection between its early outcomes and the central hypothesis.



Aerial shot of the Taw-Torridge Estuary in North Devon UNESCO Biosphere Reserve. *Credit: Graham Hogg*

Intervention 1: Participatory Models for Joint Working

Headline Summary		
CCUH intervention	Summary of Evidence	Source(s)
<p>Participatory Models for Joint Working (UCL Climate Action Unit (CAU))</p>	<p>There is strong evidence to suggest that the bespoke participatory workshops undertaken with pilot site teams and local stakeholders have:</p> <ul style="list-style-type: none"> ● enhanced local understanding of climate threats, and potential responses, through careful facilitation and cross-disciplinary discussion. ● Established local frameworks for effective partnership working and collaboration. <p>This intervention has been considered by pilot teams to be highly valuable for designation planning and collaborative decision making, with all three teams exploring the continuation of these models of working.</p>	<ul style="list-style-type: none"> – Pilot site case studies; – UCL CAU case studies

Narrative analysis

Context

A key area of exploration for the CCUH pilot was understanding how bringing together diverse professional communities and perspectives around a shared objective could help to support constructive and collaborative climate action. By testing and evaluating different methodologies for joint-working – each designed to support local priorities – the pilot illustrated how participatory models, applied in the right context, could support holistic, climate-informed site management decision-making, and strengthen the role of UNESCO sites within existing local systems and processes.

Process

The project commissioned UCL Climate Action Unit (CAU) to co-design interventions with each pilot site, providing a facilitated participatory process for engaging with partners in each designation. This comprised an online Transition Lab approach for Hadrian’s Wall and an in-person Adaptation Pathway Planning session for Fforest Fawr. At North Devon, the team developed a bespoke methodology that explored how to more holistically integrate the interrelated issues of climate, health and biodiversity to support Councillors in Local Plan processes. Care was also taken to ensure that the approaches were appropriate to the governance structures and arrangements already in place at each site. A UCL CAU case study for each CCUH pilot site intervention has been produced.

Assessing the impact of the intervention

The selection (or creation) of participatory models that complemented existing structures and governance arrangements at each site was recognised by participants as a real strength. For example, the process at Hadrian’s Wall allowed for actions and insights from the sessions to be mapped to established delivery groups: this alignment was welcomed, as it aided potential future adoption, and worked within the existing interest areas, and expected capacity constraints, of partners involved. Additionally, involving an expanded range of local stakeholders in the North Devon sessions was useful as it helped to quickly identify and address several sectoral constraints as part of the development of a new Local Plan, whilst also uncovering new ways in which the UNESCO site could be further embedded into local systems and policy-making.

“The session [...] contributed to the ongoing development of the new process, supporting Councillors as they shape the Local Plan, while fostering a more integrated approach to decision-making – we had extremely positive feedback from the session”

North Devon Biosphere

Situating activity within existing regulatory / risk frameworks was seen as an advantage by Fforest Fawr, as it aligned their sessions with wider organisational operations across the National Park Authority.

Applying the methodologies at different scales was also considered beneficial, ranging from landscape scale Transition Labs in Hadrian's Wall, to site-specific discussions at Craig-y-Nos in Fforest Fawr. Being able to tailor and flex these participatory models to adapt and respond to place and scale is essential if these reusable resources and methodologies are to have widespread value within other natural and cultural heritage settings.

“The process was a valuable exercise in cross-cutting discussion and decision making, with clear actions that can be taken forward by decision makers”

Fforest Fawr Geopark

Though limited in number, all sessions reported that the participatory approaches helped convene existing and/or new stakeholders in ways that encouraged diversity of thought, added new or different perspectives, and deepened collective knowledge. This depth and breadth of cross-sectorial discussions brought value to the process by introducing differing perspectives and facilitating informed collaboration around a central subject or priority – determined by local need. It was also recognised that the processes showed potential for encouraging more effective, longer-term engagement, and secured valuable time for facilitated discussion; this increased collective understanding on climate threats across natural and cultural heritage sites and allowed common aims to be identified.

“Looking ahead, we can see that the UCL Adaptation Pathway approach will [...] form a key part of an engagement toolkit [...] in the designation, strengthening future engagement sessions”

Fforest Fawr Geopark

It was also noted that UNESCO designations were particularly well-positioned for supporting these types of collaborative, participatory approaches; this was due to their ability to ‘bring together diverse expertise, perspectives, local connections and data’ (UCL CAU) and to unlock cross-sectorial collaboration. However, it was acknowledged that readiness to engage with such approaches could vary between UNESCO designations and would be influenced by site capacity and capabilities:

“for designations which have not yet instigated [change or transition] processes, the suitability of the different methodologies offered will depend on the nature of [their] partnership structure”

Hadrian's Wall WHS

This learning reinforces the importance of making sure any participatory models are adaptable; if these approaches are to be used in future projects or different natural and cultural heritage settings, they must be flexible enough to respond to local scope, scale and structure. The importance of providing adequate support for the delivery of these methodologies was also noted, either by staff familiar with the process, or those ideally trained in its facilitation: although CAU testing was limited within the scope of CCUH, it was clear that processes were best delivered by someone with prior knowledge and experience, and with sufficient capacity to devote to this labour-intensive process. Finally, it was noted in all three pilots that time was an important consideration in ensuring sufficient engagement in the process; operating within a time-pressured context, such as a rapid delivery project like CCUH, was not ideal, as it limited pre-workshop preparations and shortened the notice period available to prospective participants. Ideally, more time should be given to allowing a longer lead-in and more in-depth preparations.

How did the intervention affect understanding and collaboration on climate action and heritage?

Learnings from the CAU pilot methodologies suggest that, in the right context, a facilitated and place-based approach to participatory decision-making can offer natural and cultural heritage sites a way of understanding complex and systemic issues at various scales. Testing participatory tools within real-world site environments is also advantageous, both for generating transferrable learning to other sites, and for wider replicability and scaling. Feedback from all three pilots suggests that these approaches can positively improve stakeholder engagement and encourage a diversity of perspectives to be shared, balancing a deeper knowledge base within a collaborative framework for

site care, management, and adaptation. This can be used to gain a more systemic understanding of climate change issues due to the range of expertise in the room, or examine and progress specific place-based objectives. For example, the process undertaken at Hadrian’s Wall supported a shift in understanding around climate change as a cross-cutting issue of relevance to pan-site management, whereas at North Devon Biosphere, the process demonstrated how interrelated issues like climate, health, and natural and cultural heritage can be integrated into existing cross-sectoral and community processes / discussions (such as a Local Plan consultation). Moreover, the Adaptation Pathway Planning exercise undertaken at Fforest Fawr demonstrated how to connect site-specific risk management and adaptation into landscape-scale frameworks, via scalable step-by-step decision making.

“People have dropped in little ‘knowledge bombs’ which have been invaluable and have taken the discussion in completely different directions that we’ve not thought of before”

Hadrian’s Wall WHS

“We had extremely positive feedback from this session, and it’s one of the areas we would like to focus on for further funding to run more”

North Devon Biosphere

A final point that hints to the value of the participatory approaches trialled by the pilot sites is that two out of three sites engaged in CCUH have immediately gone on to explore how to continue to work with CAU to develop, expand, and embed the approaches further into their working practices, beyond the confines of the pilot. With this in mind, it may be possible that the processes introduced through CAU will continue to be adapted and bear fruit in the short, medium and long term legacy of the project, with the potential for follow up enquiries offering a positive avenue of further interest and research.

Intervention 2: Understanding, Developing and Supporting Data and its Uses

Headline Summary		
CCUH intervention	Summary of Evidence	Source(s)
<p>Understanding, Developing and Supporting Data and its Uses (Niexo Ltd)</p>	<p>A range of data and digital tools were developed and tested as part of this intervention, with mixed results reported. There is strong evidence to suggest that aspects of this work have potential to:</p> <ul style="list-style-type: none"> ● Support greater understanding of data awareness, accessibility and use value (data surveys; data catalogues; national data ecosystems maps) ● Enhance understanding of climate threats and areas of commonality / divergence (threats and opportunities survey) ● Establish more effective ways to collaborate with local partners regarding the sharing and application of data (data catalogues, CRM, national data ecosystems maps, open source coding) <p>There was also evidence to suggest that the process of developing and iterating data interventions helped stakeholders to reconsider and improve their view of data and collaboration.</p> <p>However, there was recognition that these interventions had partial impact against the central hypothesis – the potential of these tools was clearly acknowledged, but further development and refinement is needed to realise its promise.</p>	<ul style="list-style-type: none"> – Pilot site case studies; – Niexo final outputs;

Narrative Analysis

Context

CCUH sought to co-create a suite of open source, reusable and interoperable data and digital tools to support data-informed decision making and place-based collaboration on climate and heritage management. By exploring these resources at a designation level, and testing and iterating them in real-site environments, CCUH aimed to produce and share participatory tools for wider use within UNESCO and non-UNESCO sites in the UK and beyond.

The approaches, and the ambition behind them, stemmed from findings from Sites for Sustainable Development (UKNC, 2022), a research report on 42 participating UNESCO designations in Canada and the UK. The research indicated that cultural and natural heritage sites were often hindered by fragmentation across the data landscape, with variable awareness of, and access to, information and tools of value to site management planning and decision making. This evidence base has recently been updated and expanded through the work of CCUH's multi-disciplinary, cross-sectorial expert Research and Innovation Group (see p.39-41), including a focus on the role of data in enabling impactful activity between research, policy and place.

Process

Guided by the Open Digital Architecture Playbook (ODA Playbook, a blueprint for creating flexible, interoperable digital platforms), the CCUH data consultants, Niexo Ltd, conducted a data audit and ecosystems mapping exercise with several national government departments, agencies, and cross-sector bodies, whilst at pilot site level, a survey platform was built to host a sharable data survey, based on Sites for Sustainable Development findings. This was sent to the three pilot sites and a sample of their stakeholders. More detailed developmental work continued with the three pilots to identify, co-develop, and roll-out a series of open source data tools and resources to underpin more effective and integrated designation-scale data management and use.

Assessing the impact of the interventions

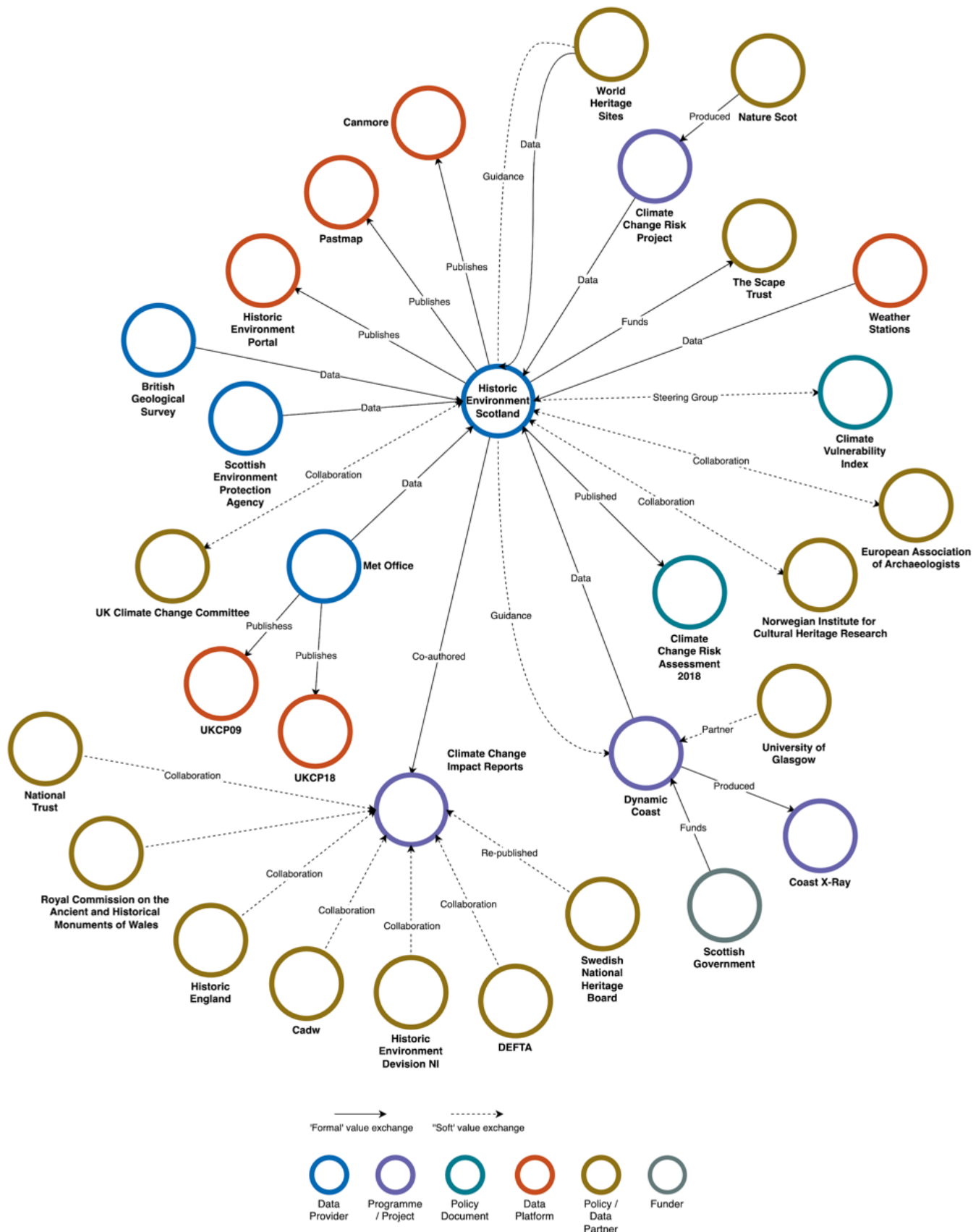
Data auditing

A series of exploratory conversations were held with 10 national partner agencies, resulting in the production of high-level data ecosystems maps and summaries. Due to the project's limited delivery phase, and the complexity and scale of the subject matter, a high-level and indicative mapping was produced with the acknowledgment that further exploratory work would be beneficial. Regardless, this introduction helped to build a common picture of climate-heritage data at a systemic level and serves as a useful, shareable project output for wider reference.

As well as depicting data linkages and information flows between departments and agencies, discussions also highlighted that:

- climate change was an established subject area for data collection and analysis, but that this was not conducted “in the context of cultural or natural heritage, and so its utility [was] often limited”, pointing to a significant gap in data availability for the heritage sector;
- data refresh cycles often weren't regular enough, which affected user ability to “monitor climate change over time”;
- the granularity of available data often restricted interpretation at site or micro-site level (something also noted within pilot site audits); and
- “existing datasets did not match findings on the ground”, with differences noted between lived experience and that described by data. This latter point was interesting as it echoed similar observations made about the relationship (and application) of data to participatory practice and decision making (see CAU, p15-18).

Figure 2: Example of CCUH Data Ecosystems mapping (Historic Environment Scotland)



Awareness of these limiting factors within a heritage context was informative and supported many of the aforementioned conclusions drawn from Sites for Sustainable Development.

At pilot site level, similar observations were made via a bespoke survey sent to partners selected by each designation. Anecdotally, stakeholders reported that the length of the survey, together with capacity constraints and unfamiliarity with Two Factor Authentication protocols (2FA), was a barrier to completion; this feedback provides important lessons for ensuring and future roll out of the platform is fit-for-purpose and suitable for the intended audience. Although uptake was limited (23 respondents from 57 invitations), findings at designation level were still informative, and provided sufficient information for the CCUH pilot to use as a test sample. The potential for establishing a centralised, sustainable source of data and information was noted, with many current data linkages being dependent on personal connections, along with a willingness to test new open source approaches and technologies. Encouragingly, as with the national audit, local surveying highlighted a strong desire to collaborate and an openness to share knowledge, despite the current lack of enabling technical infrastructure and data compatibility.

More broadly, the creation of a dedicated, secure platform and a shareable, repeatable data survey was viewed as a helpful step towards achieving greater knowledge and awareness of the data landscape at designation level:

“[the data survey] revealed that a wide variety of data was in use across the site, from specialist GIS data to tourism survey data. This was a much-needed step into understanding the complex and multi-disciplinary data in use across the site. A workshop [.....] also helped to identify the positives and challenges of how data is currently being managed across the designation. This was a valuable exercise for the project team”

Fforest Fawr Geopark

In keeping with CCUH ambitions to create reproducible tools and methodologies for use in any heritage setting, the platform and survey (and accompanying analytics)

were designed to be securely sent to selected partners within a given area, designation and/or landscape, and used to incrementally build a standardised picture of data availability, accessibility and use. This standardised tooling approach has real potential to support improved data awareness and the identification of potential data gaps and synergies. However, it is important to strike the right balance between data security, data completeness, and user accessibility – particularly, if tools are intended for a wider, global audience.

Data catalogue(s)

Findings from the surveys were complemented by in-person data discovery sessions in the pilot sites to begin co-developing a designation-scale data catalogue and supporting tools. Participants highlighted the value of this collaborative approach, which brought together different data owners and users from the outset.

“These [discovery] sessions revealed a strong interest in data that bridges health, climate change and biodiversity, while also highlighting the need for further exploration into the[ir] practical integration”

North Devon Biosphere

“This was a valuable process for the project team and allowed us to catalyse our thinking on what can be done to improve our data management across the designation”

Fforest Fawr Geopark

The development of site-specific data catalogues was welcomed by all three pilot sites as an important resource for improving data transparency and interactions across the various layers, functions and organisations comprising the designations. The catalogue, designed to act as the unifying hub for all CCUH data tools (see Figure 3), was modified to reflect the different contexts and priorities within each pilot site, enhancing its value as a coherent and collaborative environment for supporting integrated knowledge management amongst site managers, heritage professionals, communities and other place-based partners. The composition and application of catalogue



Representative from English Heritage at the Climate Change and UNESCO Heritage Workshop for UNESCO sites across the South West of England held in Bath, England. Credit: Matt Rabagliati

features, being open source and modifiable, was also seen as an advantage regarding its rollout and [re]use in other designations and cultural/natural environments.

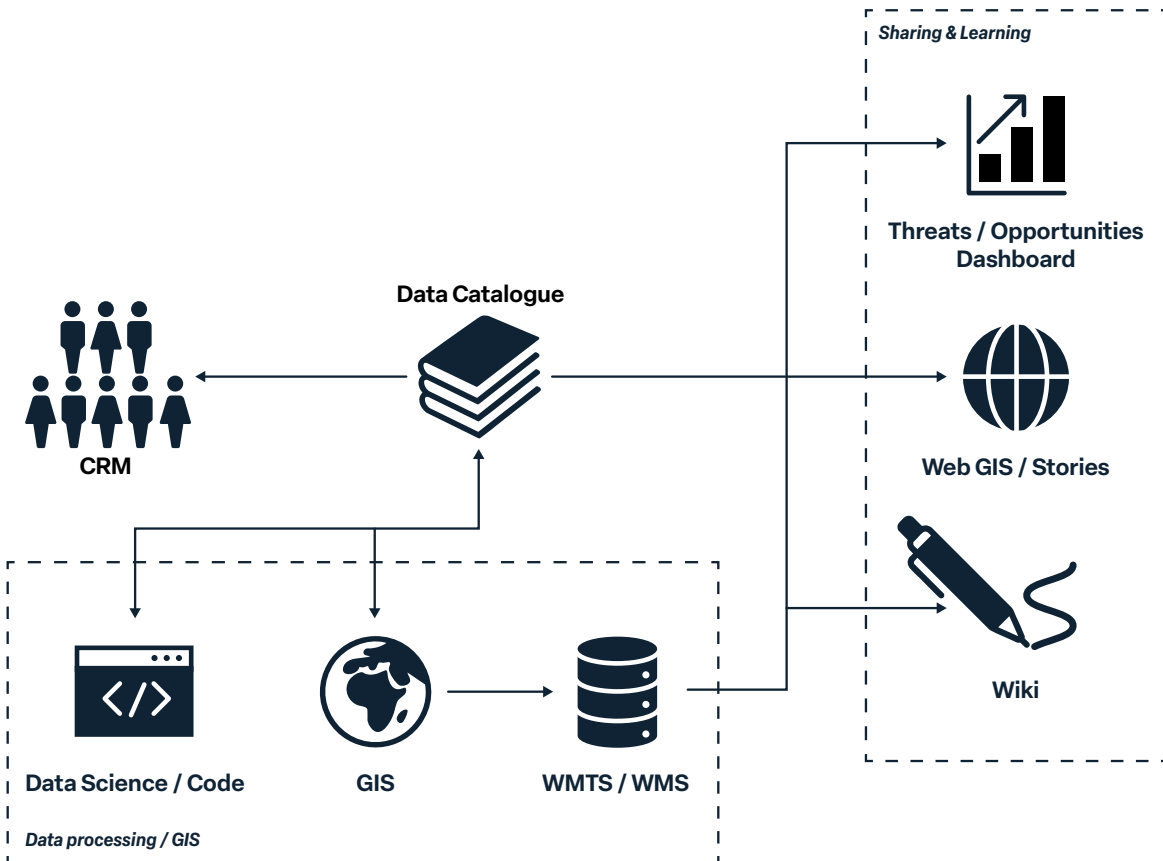
“This [catalogue] has been widely acknowledged as a much-needed resource by our stakeholders, but further [...] considerations about the longevity of the resource will need to be defined. Some potential future use-cases identified include using the catalogue as an evidence base for local site plans and for bringing together data on carbon sequestration”

Fforest Fawr Geopark

“The Data Catalogue [...] may be] of practical benefit and utility to the management of many UNESCO designated sites presently lacking a mature and established equivalent”

Hadrian’s Wall WHS

Figure 3: Niaxo Schema for Data and Digital Tooling



Data tool(s)

Several beta version digital tools were explored with pilot site teams to determine potential applicability and value, including SuiteCRM, Wiki, and GIS tools. All tools were evaluated with pilot site teams; unsurprisingly, different operational and organisational factors at designation level influenced the usefulness of the various tools, with some offering functionality already available. A full write up of each tool's testing and appraisal is available as part of Niexo final outputs.

In addition to these tools, a second survey was created to assess relevant threats and opportunities to sites across 13 subject area categories, with the option to also link these to specific climate change hazards. This data tool, conducted at both pilot site level and with a test cohort of 34 UK UNESCO designations, aimed to capture a standardised picture of multi-faceted threats and opportunities facing site managers and partnership boards. This information populated an interactive analytics dashboard (see Figures 4 and 5), designed to support decision-making and site management at designation level, whilst also being capable of identifying areas of commonality across designation types and geographies. Although still at a proof of concept phase and requiring further refinement, the potential for this tool to provide a standardised and repeatable way to visualise real-site threats and

opportunities, and their relationship to climate change hazards, was recognised amongst the pilot site teams and participating UK UNESCO network sites.

Through road-testing an early model of the dashboard and its analytical capabilities, the project also identified a range of important areas for refinement, including improvements to the user interface, the ability to download and/or share site profiles outside of the dashboard, and the potential to import existing site information, such as WHS Periodic Reporting or Accreditation Reports. Data granularity and access to specific areas of risk information was also discussed at length, as were accessibility requirements. Whilst not actionable within the pilot, these insights and constructive feedback offer ample user research data for informing an improved, user-responsive, and production-ready tool.

“Despite some difficulties with the complexity of the survey process, there is clear value in having a baseline for monitoring climate risk across UNESCO Sites”

Fforest Fawr Geopark

“This has been a useful exercise, and I realise that I need to put more emphasis on climate change as I write my strategy documents”

North Devon Biosphere

Figure 4: Interactive CCUH Threats and Opportunities Dashboard (screenshot)

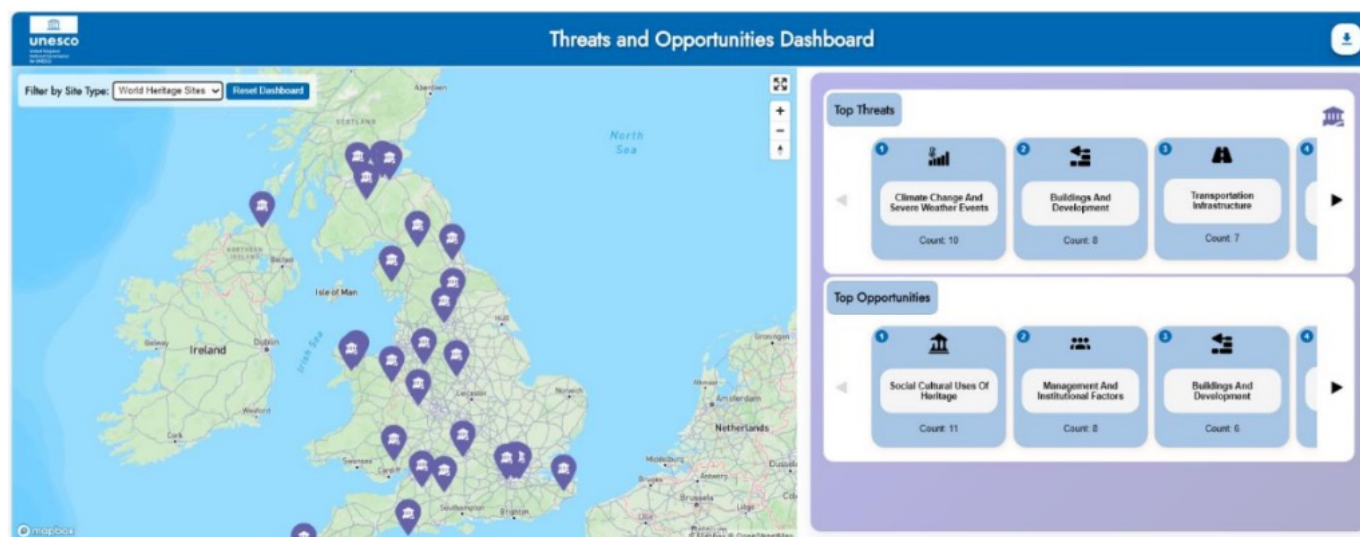
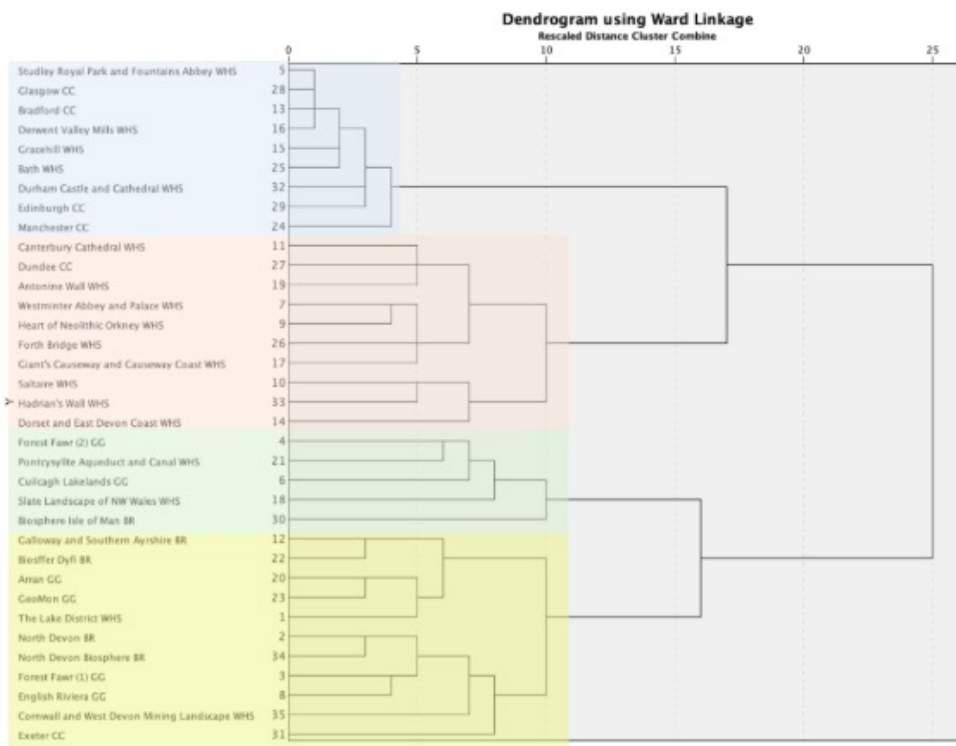


Figure 5: CCUH Threats and Opportunities Clustering Dendrogram

All Sites,
All Variables

Clusters based on
identification of
opportunities and threats

As more branches start to join towards the right of the dendrogram, four distinct clusters emerge (one at a rescaled distance of 4 and the remaining three at 10). These four subsequently merge into two pairs of larger clusters at the rescaled distances of 17 and 16.



Moreover, the methodologies' potential to build networks of commonality across sites, designation types and regions/nations, was acknowledged as a powerful, scalable tool in supporting collaborative responses to sustainability challenges.

How did the intervention affect understanding and collaboration on climate action and heritage?

The impact of this intervention should be considered at two levels; its effect on our understanding of the data environment for climate and heritage, including linkages, gaps and use; and its effect on actual subject matter knowledge and practice.

On the first point, activities relating to data auditing and mapping clearly illustrate the scale and complexity of data use and management relating to climate change and cultural / natural heritage – it is helpful to also consider this alongside the strategic systems mapping and the cross-sector research framework completed as part of the project (see p.39-41). CCUH

has also given an insight into the volume of activity in this area and how these strands can often appear to be misaligned. Clearly, more work is required, but CCUH has provided a useful starting point for both mapping knowledge infrastructure and demonstrating the latent potential of digital and data tools to support data visibility, accessibility and interoperability. This is particularly important when addressing systemic challenges like climate change that transcend sectorial and/or disciplinary boundaries.

On the second point, CCUH involvement has supported pilot designations to enhance their understanding of the data at their disposal and its value in decision making and site management. By design, the project has tested this in three distinct contexts, therefore supporting potential scaling across other cultural and natural heritage sites. Interestingly, the process of reviewing and building data tooling also prompted some pilot sites to reconsider their approaches to data management and how best to share information.

“Our pilot made significant progress in identifying, mapping, and testing data assets and digital tools to support climate, health, biodiversity, and heritage integration. [...] The project helped broaden local perceptions of climate-related health risks beyond the traditional focus on flooding.”

North Devon Biosphere

“we have created new resources to enhance awareness of climate change and the availability of related data, information and reports”

Hadrian’s Wall WHS

Overall, the iterative development of data and digital tools within real-site environments has provided valuable learning on the data environment and the importance of making any shareable data / digital tools standardised, yet responsive to place; if tools like these are to effectively enable compatible joint-working at varying levels, from site-specific to landscape scale environments, they must be modifiable but with a functional level of interoperability to allow wider integration and networking. The ability to collate and interpret different types of information to highlight opportunities for potential collaboration, as seen via the proof of concept Threats and Opportunities dashboard, is a good example of this and shows the potential of such an approach.

Through the process of developing the tools it has become increasingly apparent that people and relationships are at the heart of all aspects of site management, decision making and collaboration; data and digital tooling should be complementary to this and focused on helping people to work together more effectively. Tools like the data catalogue and threats and opportunities dashboard have value in their ability to share knowledge and support joint working in a standardised, robust and integratable way. However, discussions have also touched on the relationship between people and data, noting the importance of balancing ‘information’ with local lived experience – the latter being essential to appropriately selecting, interpreting, and applying data and knowledge within specific locations and contexts. It is an important distinction that points to the importance of lived

experience and local knowledge in participatory practice. This was frequently referenced in national conversations, and also within CAU’s participatory learning with reference to data and risk:

“Participants learnt that [risk] data is best used to help understand specific threats identified by stakeholders, rather than to prioritise actions or understand the overarching threats to sites”

UCL CAU (Fforest Fawr session)

A final point alludes to the use of data in narrative building and effective participatory practice. The stakeholder engagement workshops identified that story-telling and intangible data could be applied in conjunction with hard data sets to help inform an understanding of the broader stakeholder landscape and the challenges in play regarding climate change and heritage. This resonates strongly with perspectives surfaced in the Liveable Futures report (see p.39-41), where parity is introduced between the role of data and the importance of storytelling:

“They, like many others in the research, recognised the need for better stories, as much as, if not more than, better data”, Liveable Futures



CCUH Project Lead introducing the Climate Change and Heritage Project at regional workshop, Perth, Scotland.
Credit: Matt Rabagliati

Intervention 3: Stakeholder Mapping, Analysis and Creative Engagement

Headline Summary		
CCUH intervention	Summary of Evidence	Source(s)
<p>Stakeholder Mapping, Analysis & Creative Engagement (Lateral North)</p>	<p>There is limited evidence to suggest that the design-led approaches to stakeholder mapping and engagement have helped pilot site teams to:</p> <ul style="list-style-type: none"> ● Identify and map local stakeholders and communities with reference to natural and cultural heritage and climate change ● Understand more about perceptions and attitudes towards climate change at community level across designations, including through the use of artistic interventions ● Establish approaches and ways of working to support greater collaboration and participatory place-based climate action and adaptation <p>Although resources are now available to support similar engagement to be repeated at community level, the interventions tested had limited impact within the delivery phase.</p>	<ul style="list-style-type: none"> – Pilot site case studies; – Creative commissions; – Future_scapes Exhibition;

Narrative analysis

Context

An early project assumption was that to effectively introduce interventions and processes, the project would first need to identify and map its local and national stakeholders. It was felt that this would inform a systemic view of the project’s potential contributors and actors, and underpin and enable other engagement-based project activities. However, the exploratory nature of the pilot also offered an opportunity to adopt

a more innovative take on traditional stakeholder mapping methods, and to trial methods of surfacing potential stakeholders based on local knowledge and lived experience of climate change and its impacts in each UNESCO site. With this in mind, the pilot’s stakeholder mapping work became an intervention and opportunity for innovation in its own right.

Process

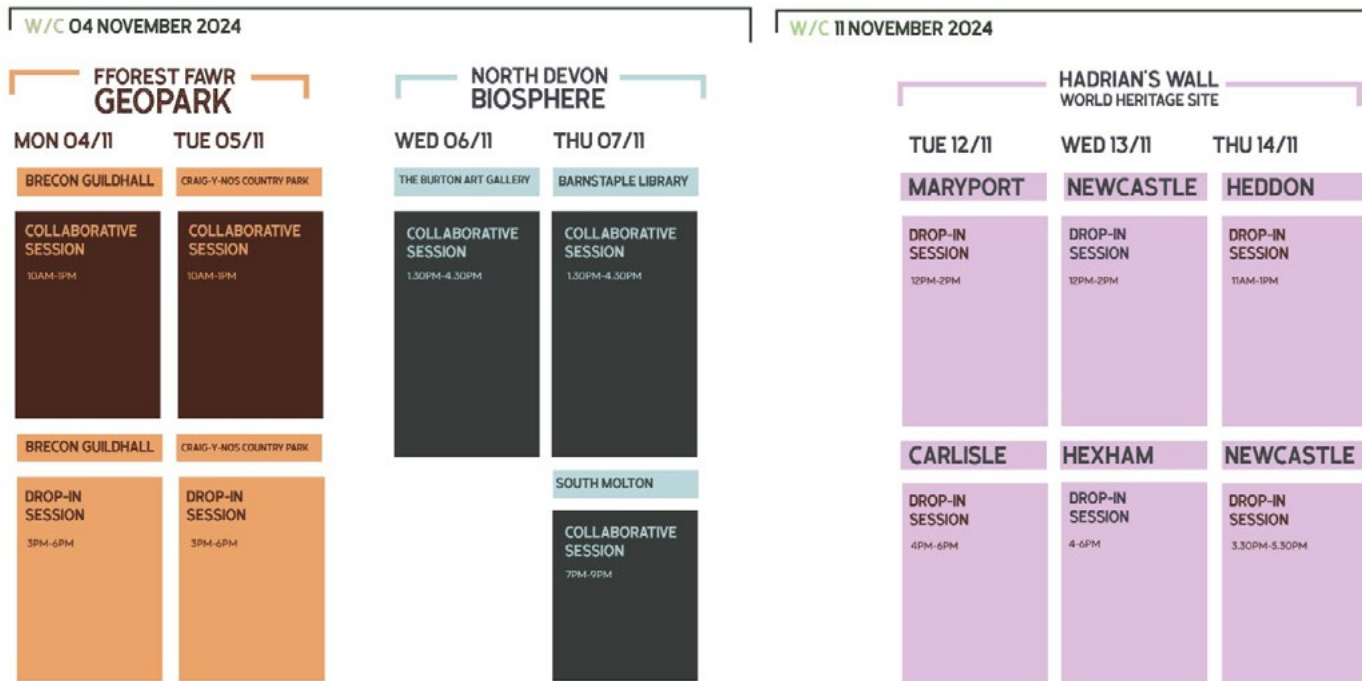
The project commissioned Lateral North Ltd to design and deliver a series of design-led stakeholder mapping and engagement activities that explored how people, communities, and organisations perceived climate change issues at a localised level. The approach also aimed to explore how creative practice could surface new stakeholder insights and inform local climate action initiatives. Lateral North worked with each pilot site to select a number of locations across the three UNESCO pilot sites to host either drop-in or collaborative workshop sessions with local participants, purposefully selecting multiple locations across the designations to maximise representation.

The sessions informed a series of subsequent stakeholder mapping outputs, including relational maps of the stakeholders generated across the three sites; a sample of a categorised stakeholder list (with potential to feed into the SuiteCRM); and site-specific suggestions for further stakeholder activities.



Community mapping workshop held in a pilot site as part of the Stakeholder Mapping. Credit: Graham Hogg

Figure 6: Dates and locations of CCUH community stakeholder engagement sessions



The workshops also underpinned the development of an interactive, reusable engagement toolkit, available for designations to use at a community-level and using design as a mechanism for engaging groups of people in stakeholder mapping activities.

The process also supported the creation of the draft engagement concept, 'Future_scapes', along with a set of modifiable Visual Identity guidelines, and a transportable Future_scapes Exhibition, which toured around 5 sites in the UK in Spring 2025.

Assessing the impact of the interventions

Small cohort collaboration

The 'Future_scapes' approach trailed via Lateral North reached 106 participants through 13 small pilot workshops across the three participating pilot sites. Promotion and planning for the sessions had to be undertaken at a rapid pace early into the pilot site delivery stage of the project, and as a result, some workshops experienced low attendance. Despite this challenge, facilitators fed back that working with a smaller cohort worked well in stimulating collaborative discussion, with between 5-15 participants ideal in

providing space for all participants to fully engage in conversations; in larger groups, individual contributions had to be managed (as as a result, were more limited) to allow all attending to have an opportunity to be heard. It is worth noting that the sessions were intended to be targeted at small, localised groups and then repeated to gain cumulative insights at designation-scale, so attendance would be expected to fluctuate.

Local perspectives and concepts of 'stakeholders'

As a prototyping activity, the 'Future_scapes' approach revealed that creative practice can provide a useful bottom-up approach to identifying and mapping potential stakeholders and capturing localised climate change perspectives. The sessions resulted in 39 co-designed 'response ideas' related to climate threats that had been identified by local participants, each with a series of potential stakeholders who might be considered when initiating or delivering that 'response'.



Figure 7: Image of ‘response ideas’ captured during community engagement sessions at Craig-y-Nos, Fforest Fawr UNESCO Global Geopark

Across the workshops, participants identified approximately 600 stakeholders that they felt were relevant to the place-based climate challenges their groups had identified. These suggestions included local businesses, community associations, charities, regulators, and public agencies (e.g., ‘National Trust’, ‘Lakes College’, ‘Surfers Against Sewage’, ‘Transport for Wales’, ‘Public Health Devon’, ‘Parish Council’, ‘Wardell Armstrong’, ‘National Park Authority’ etc), but also included come more unconventional forms of stakeholder identity, such as wildlife and physical features of the local natural and historic environment (e.g., ‘sandstone’, ‘the Windsill’, ‘the Solway Firth’, ‘otters’, ‘wildflower meadows’ etc), and manifestations of local identity, intangible cultural heritage, and locally-

valued ‘experiences’ (e.g., ‘traditional crafts’, ‘mining & sentimentality’, ‘linguistic history’, ‘a slower pace of life’, ‘magnificent views’ etc). In some sessions, even forms of technology were identified as potential stakeholders (‘wifi’, ‘the value of LiDAR’, ‘googlemaps’, ‘social media platforms’ etc).

The volume and diversity of stakeholders identified through the piloted activities suggests that the ‘Future_scapes’ approach offers potential as a community-driven form of stakeholder identification and mapping, in which the definition of ‘stakeholder’ is not fixed. The open definition had advantages in that it seemed to encourage participants to expand their thinking about who might hold a stake in climate action, but also what aspects of local value might be affected. Responses from participants demonstrated the term ‘stakeholder’ had the potential to be reimagined, and that a broader definition could assist in uncovering and understanding new insights about the relationship between people and place. It also echoes Liveable Futures (see p.39-41) in challenging assumptions about place-based representation and agency, and the integration of ‘more-than-human’ thinking into the planning stages of local climate action initiatives, something which may be overlooked in more traditional approaches to stakeholder mapping.

Limitations to impact and analysis

Although pilot workshops were successful in showcasing the types of information that can be gathered through creative processes, their output was arguably limited. The sessions provided information at a hyperlocal level, revealing specific climate issues relevant to that place, but they did not capture a comprehensive picture of the stakeholder landscape at designation-scale: the resulting end outputs – relational maps and stakeholder lists – therefore only provide a subjective snapshot. The limitations of the output, and the fact the delivery had to be undertaken concurrently to other interventions, also impacted upon other CCUH workstreams. This presents two missed opportunities for assessing the value and impact of the approach: the opportunity to have tested the outputs as tools for informing the engagement priorities for other pilot-site level

interventions, and the opportunity to have gathered qualitative feedback from the project's wider community of consultants and experts on how the resources compared to other styles of stakeholder mapping that they were familiar with.

Whilst the workshop engagement activity is repeatable in new settings and can be adapted to cover different topics, scaling or reuse of the material generated from one session may not necessarily be applicable or informative for work on other challenges. The relational maps and lists produced could, however, be added to overtime and/or complemented by existing or future data; in finalising the sample outputs, each pilot site team also provided additional information based on their organisations existing understanding and relationships with local stakeholders, resulting in a data set that was a blend of site-based knowledge and local perspectives. It should be recognised that repeating this process would be slow and labour-intensive, albeit rich in locally-generated perspectives. With these constraints in mind, the method is perhaps best considered as a sampling approach which might support small-scale project planning, rather than for providing a comprehensive or systemic view of the stakeholder landscape across a full UNESCO site.

Another limitation stems from the constraints of the project timeline and sequencing. A gap of several months elapsed between the completion of the 'Future_scapes' workshop activities and the development of the relational maps and stakeholder lists. This meant that finalisation with pilot site teams could not be achieved until late into the delivery of CCUH, and that resharing of the materials with those who took part in the workshops could not be achieved within the project timeframe. The impact of this is that there is currently no qualitative data available on the real-world application or demonstrated use-value of the relational maps or stakeholder lists from the sites involved, and conclusive feedback from members of the community about whether these samples fully reflect the processes they designed is still to be determined.

With these limitations in mind, further development of the 'Future_scapes' engagement approach could focus on improving our understanding of how the end results

from a workshop session can be best analysed and integrated into wider designation activities. Ideally, this would be done with participants and swiftly after the workshops to a) ensure the materials produced remain grounded in community perspectives, and b) to avoid the process of identifying and mapping stakeholders becoming an extractive exercise.

How did the intervention affect understanding and collaboration on climate action and heritage?

The impact of the materials produced through the 'Future_scapes' intervention on collaborative practice or increasing understanding around climate action is still to be determined. However, the process has had some effect on how the pilot sites understand their stakeholder base relating to climate and heritage, and how this might inform future collaborative work or local climate initiatives.

A foundation for expanding future engagement and collaboration

Two of the three sites reported that the mapping exercise, even as a trial process, helped to convey new information about the complexity and variety of their UNESCO site's stakeholder base. These sites also noted that whilst capacity would limit their ability to engage with substantial numbers of the stakeholders identified, the process could 'help to identify key priorities and cross-cutting themes' (Fforest Fawr) going forward. The process also demonstrated that options to 'expand and extend the scope' (Hadrian's Wall) of future community consultation efforts were possible, if constrained by resources. Complemented by wider community and stakeholder engagement efforts, North Devon reported that CCUH had helped to 'foster new connections and enrich local networks', with the 'Future_scapes' workshops playing a role in 'understand[ing] perceptions and lived experiences'. Trialling the new engagement methods has therefore suggested new opportunities for longer-term collaboration and provided the groundwork for further development.

Gaps in knowledge: the interconnected issues of climate change and heritage

The process also had some incidental and unexpected effects on how sites understood local community views on climate change. In some settings, workshops revealed how climate change was not always intuitively linked to heritage, place, or other complex challenges (like human and community health), and that it wasn't always viewed as a fundamental issue affecting their local UNESCO site. By highlighting awareness gaps on these interconnected challenges, the process provided an opportunity for those more closely involved in UNESCO site management or in climate change initiatives to actively consider how to respond to this challenge, and to explore ways to communicate and raise the public profile of local climate change issues. Some action in this space has already gained momentum:

"[The workshops...] illustrated the scale of the challenge facing us in raising public awareness of the immediate and significant threat climate change poses to the continued conservation of Hadrian's Wall's archaeological assets. Some initial progress in raising that awareness was achieved at the annual Hadrian's Wall Networking Day, held in March [2025], featuring a series of presentations concerning the impacts of climate change already being experienced across the WHS"

Hadrian's Wall WHS

"A significant gap was identified in community understanding of the interconnectedness between climate change and health. The project highlighted the potential of nature-based solutions to mitigate future health risks, which would allow for more integrated and informed community responses. Our future engagement strategy looks to bridge this gap, supported by tools developed during the project to bring groups together."

North Devon Biosphere

To build on these learnings, further testing of the 'Future_scapes' approach should establish and record the baseline understanding and perceptions around climate change and its relationship to culture and natural heritage. This should be done from the outset of the workshop, and include mechanisms for measuring any change to these perceptions over the course of the creative engagement process. Additionally, metrics could be applied to understand the extent to which the scope and reach of any strategic communication activities led by UNESCO site teams (with resource constraints in mind) has been influenced by the results of the workshops. This could help to deepen understanding around the role creativity-led engagement in building climate awareness, or in helping to shape stakeholder communication strategies. An opportunity exists to introduce such measures into the Future-scapes toolkit.

Conclusion

The trialling of the 'Future_scapes' approach offers a promising route for broadening stakeholder engagement in climate and heritage contexts, for challenging conventional definitions, and for surfacing locally valued 'stakeholders' and perspectives. While early outcomes demonstrate the approach's capacity to foster dialogue and support a nuanced understanding of place, further analysis is needed to validate the impact and use-value of the materials produced in UNESCO site settings. Further refinement of the approach should focus on embedding evaluative measures into both the toolkit and future workshop designs, and on enabling community participation beyond the workshop environment.

Interventions 4 & 5: Strategic and Systemic Analysis and the Development of a Cross-sectoral Research Framework and Strategic Agenda

Headline Summary		
CCUH intervention	Summary of Evidence	Source(s)
<p>Complementary national level activities</p> <p>National Strategic and Systemic Analysis (Anna Spencer)</p> <p>Development of a Cross-sectoral Research Framework and Strategic Agenda (Bureau for the Contemporary and Historic)</p>	<p>There is strong evidence to suggest that complementary national interventions have positively impacted on:</p> <ul style="list-style-type: none"> ● An understanding of the strategic and systemic landscape relating to climate change and heritage (Liveable Futures) ● An understanding of the evidence base and research agenda relating to UNESCO Designations as sites for testing innovation regarding sustainability challenges ● The potential for more effective cross-sectoral collaboration, through an increased appreciation of systemic challenges and opportunities, and a clear articulation of how research can be cohesive and mutually reinforcing (nexus approaches) <p>Both interventions can be of broad use in supporting coordinated action relating to climate change and heritage action planning, management and research.</p>	<ul style="list-style-type: none"> – Liveable Futures report; – UNESCO Climate Change and Sustainability Research Framework & Agenda;

Narrative analysis

Context

In addition to testing interventions with pilot site teams, CCUH also delivered two complementary pieces of work at a national level; a strategic and systemic analysis (“Liveable Futures”) of the role of cultural and natural heritage regarding climate change; and the development of a UNESCO Climate Action and Sustainability Research Agenda (“Research Agenda”), underpinned by an updated evidence review and co-developed with the CCUH’s cross-sectoral, multi-disciplinary Research & Innovation Group.

These research documents were intended to both position and inform the interpretation and future application of learning, methodologies and resources relating to climate change within a heritage context, but also assess their potential role as enablers of participatory innovation.

Process

Liveable Futures was produced using three distinct phases of enquiry; desk-based research and

situational analysis, followed by deeper interactions with pilot sites and communities exploring the connections between climate change, heritage and related areas of work; and a final round of 18 in-depth climate conversations, engaging 22 people from 17 different organisations.

The UNESCO Climate Action and Sustainability Research Agenda was underpinned by a thorough review of recent evidence and thinking on climate action, sustainability, and nexus approaches. This research activity also reviewed, updated and expanded the Sites for Sustainable Development (2022) report. Throughout, this work was guided by a [Research and Innovation Group \(R&I Group\)](#) composed of leading academics from eight UK universities and UNESCO Chairs; alongside practitioners from English Heritage, Historic England, National Trust, the private sector, and representatives from UNESCO sites and UNESCO itself.

Liveable Futures and the UNESCO Climate Action and Sustainability Research Agenda (and accompanying Conceptual Framework) will be published in autumn 2025.

How has the intervention affected understanding and the potential for collaboration on climate action and heritage?

As both national pieces of work are future-focused, it is impossible to assess any tangible impact to date. However, certain aspects are worthy of note, as they corroborate many observations found within other CCUH interventions, whilst also contributing to CCUH's ambition in the long term.

With reference to data, *Liveable Futures* found that arrangements relating to data ownership, storage and proprietary considerations often resulted in limited accessibility and use, and that there was a tendency to prioritise more scientific, professional forms of data over other sources of experiential knowledge; this observation echoes points raised by CAU and Niexo relating to the use of data within place-based participatory practice and its relationship to people. Similarly, the *Research Agenda* identified restraints regarding data compatibility and access, whilst also noting that the scale and scope of the climate-heritage ecosystem represented a powerful opportunity for comprehensive data generation and community empowerment. As noted in Niexo's analysis, the *Research Agenda* also recognised a real appetite amongst site managers and partners to trial new approaches and technology.

A willingness to collaborate mentioned in all other CCUH interventions was also referenced in the *Research Agenda*, with *Liveable Futures* building upon this foundation to recommend areas for greater integration and increased interdisciplinarity between heritage and environmental sectors at landscape scale. At a meta level, both pieces of research are themselves evidence to support a willingness and enthusiasm to collaborate on the potential role for UNESCO sites as conveners and innovators regarding heritage and sustainability challenges. Interestingly, enthusiasm to collaborate on climate and heritage was also evident at community level, suggesting a systemic willingness to work together on complex challenges – as noted as part of community stakeholder engagement sessions, participants

were willing to engage and wanted to work more collaboratively on local issues; focusing the conversation on the future of a place helped to invest the group in conversations about collaborative climate action.

The UNESCO name, and the composition of UNESCO designations, was explicitly referenced in *Liveable Futures* as an enabler for both deeper and richer data integration (and knowledge), and as a driver of participatory innovation and collaboration. This echoes not only with feedback from all three pilot sites, but also with the Research Agenda's supporting Framework:

“Their [UNESCO] position within a global network facilitates the exchange of knowledge, tools, and outcomes for sustainability experiments—making them powerful spaces for both local innovation and international learning. The UNESCO designation itself brings added legitimacy and visibility, often helping to attract funding, technical expertise, and strategic partnerships. Moreover, the international profile comes with the advantage of established governance frameworks: many sites already have multi-stakeholder management committees that are well placed to coordinate across sectors and respond flexibly to emerging challenges.”

UNESCO Climate Action and Sustainability Framework

“The awareness of the UNESCO designation and brand was a key learning for us [...] it was generally noted that the UNESCO brand itself has a great deal of strength and influence. Despite this, certain stakeholders weren't even aware that they lived in a Geopark, highlighting the need for further communication”

Fforest Fawr Geopark

“The strength and recognition of the UNESCO brand played a pivotal role in facilitating engagement with stakeholders from sectors not traditionally connected to the Biosphere. The designation served as a powerful entry point, opening doors to new conversations and fostering interdisciplinary collaboration across health, planning, data and environmental domains”.

North Devon Biosphere

“Running this workshop process surfaced the unique role of a UNESCO site; in particular its capacity to bring together diverse expertise, perspectives, local connections and data”

UCL CAU (North Devon session)

4.3 CCUH in Numbers

Throughout the course of project delivery, CCUH has undertaken extensive collaborative and participatory engagement with key partners, stakeholders and communities; this has spanned pilot site engagement, executive oversight and expert research and development, workshop facilitation and interactive tooling testing to name a few. An indication of the range and depth of this engagement is provided in **Figure 8** below.

Figure 8: CCUH activity in numbers





5

Movement (Theory of Change Findings)

Left: Representatives gather on the iconic dunes of Braunton Burrows, the heart of the North Devon Biosphere Reserve (pilot site), to collaborate on land-use, conservation and community engagement. *Credit: Matt Rabagliati*

Following the approach described in Section 3.4 of this report, a Theory of Change was created for CCUH to set out the conditions required for longer term systemic change, and the logical approach for delivery to follow – these are mapped below in Figures 9 and 10 respectively. The Theory of Change founded on the following proposition:

Evidence from pilot site case studies and a cross-project learning session in North Devon at the end of the delivery phase was reviewed to provide an assessment of movement towards the Theory of Change’s anticipated short term outcomes. This assessment is summarised in **Table 3** below.



By developing open data tools, participatory methods, and collaborative governance models, UNESCO sites can provide credible, place-based platforms for responding to interconnected climate threats, and generate scalable lessons for the wider heritage and climate sectors.



Table 3: CCUH Theory of Change Outputs review

CCUH outputs (ToC)	Summary of evidence	Impact
Local partners forge strong, inclusive networks	<p>Pilots reported being more aware of local communities and stakeholder networks as a result of data mapping, stakeholder engagement and participatory working approaches. Pilots now have the knowledge and reusable / sharable tools to engage with inclusive local networks.</p> <p>Sites reported a growing confidence regarding strategic approaches to climate change, a greater awareness of threats to heritage, and recognition of the power of UNESCO to convene and motivate diverse partners and communities.</p>	Positive
Partners understand the quality and value of each others’ data	<p>Pilots reported closer collaborative working with local partners had resulted in better awareness of datasets and their potential value – visibility and access to data for decision-making had also been enhanced by the introduction of Designation-specific data catalogues and tooling.</p> <p>However, the lack of sustained funding, and its potential impact of the continuation of emerging CCUH tools and approaches, caused uncertainty – as did the partial development and testing of the tools to date – further, real-world testing and refinement would be required, which would need further investment.</p>	Positive
Data access and skills improve for partners and communities	<p>Project learning highlighted the difference between data access and data awareness; data awareness and data relationships have improved during the project, but shared, responsible data access may take longer to realise. Data skills remain an area for improvement.</p> <p>Pilots cited limited resources and ongoing uncertainties regarding investment as areas of concern; the challenges of data integration into site operations, and in sustainable climate change action and adaptation, were noted. However, pilots also reported that CCUH participation had improved in-house capabilities, but that additional capacity was needed to fully realise potential.</p>	Partial impact

CCUH outputs (ToC)	Summary of evidence	Impact
Enthusiasm / capacity is evident for collaborative practice	<p>Pilots demonstrated a strong willingness to collaborate as a project community – supported by regular in-person contact – and within their pilots; for example, with Public Health and Planning teams in North Devon, or with a broader cross-section of staff and organisations in both Fforest Fawr and Hadrian’s Wall. The value of this approach was consistently reported.</p> <p>Pilots also viewed interdisciplinarity and cross-sectoral working as a positive experience, and reported that CCUH involvement had a positive impact on attitudes regarding inter-site collaboration – however, attitudes were positive, but also realistic: collaborative action required time and resources, which were not always readily available.</p>	Positive
Local intelligence re threats & priorities drives decision making and shared goals	<p>Local engagement and participatory workshops have provided additional detail on local context and priority areas. Threats and Opportunities mapping has provided further information on overall and climate-related challenges facing sites, although the survey and dashboard remain at Proof of Concept phase and need further development.</p> <p>Pilots reported an improved understanding of site management approaches, and how research and data could support this. The framing of inevitable change as the basis for heritage-climate discussions was also seen as a constructive way of addressing, and reimagining, future scenarios and collaborative decision-making.</p>	Partial impact
Partners have confidence to openly and honestly share learning and experiences	<p>Evidence from CCUH delivery, and in particular the four CCUH project events, shows project partners were willing to openly and honestly share learning and experiences. This was a positive result of the project, with the intention expressed by pilots to maintain this community (locally and nationally) after project closure.</p> <p>The potential of CCUH tools and approaches reported increased confidence, although further development and testing was needed. CCUH’s approach to community building also instilled confidence in the pilot sites as a result of knowledge sharing, peer support, and connectivity between sites.</p>	Positive
Sociological perspectives on climate change are valued and well considered	<p>Limited evidence exists to support this outcome, although <i>Liveable Futures</i> identifies several opportunities for the broader integration of diverse perspectives into local action and adaptation.</p>	No impact

It is worth noting that the initial Theory of Change included several comparative statements; due to insufficient benchmarking at the start of the project, and the overall lack of a counterfactual position, comparative analysis has not been possible. Therefore, the terminology of short term outcomes (below) has been revised to reflect the stand-alone assessments undertaken in this report. Future projects should consider the inclusion of counterfactual measures if comparative analyses are required.

Overall, the short term nature of CCUH has limited its ability to demonstrate change over time, but formative findings against the project’s core assumptions, coupled with the review of conditions for change outlined above, suggest that CCUH approaches can support movement towards longer term desired impact regarding collaborative and participatory practice.

Therefore, **the direction of travel identified during CCUH delivery is well-aligned to both this evaluation’s central hypothesis and the SOF’s primary and secondary aims** for this project (see **Figure 1**, p.12).

Figure 9: CCUH Theory of Change

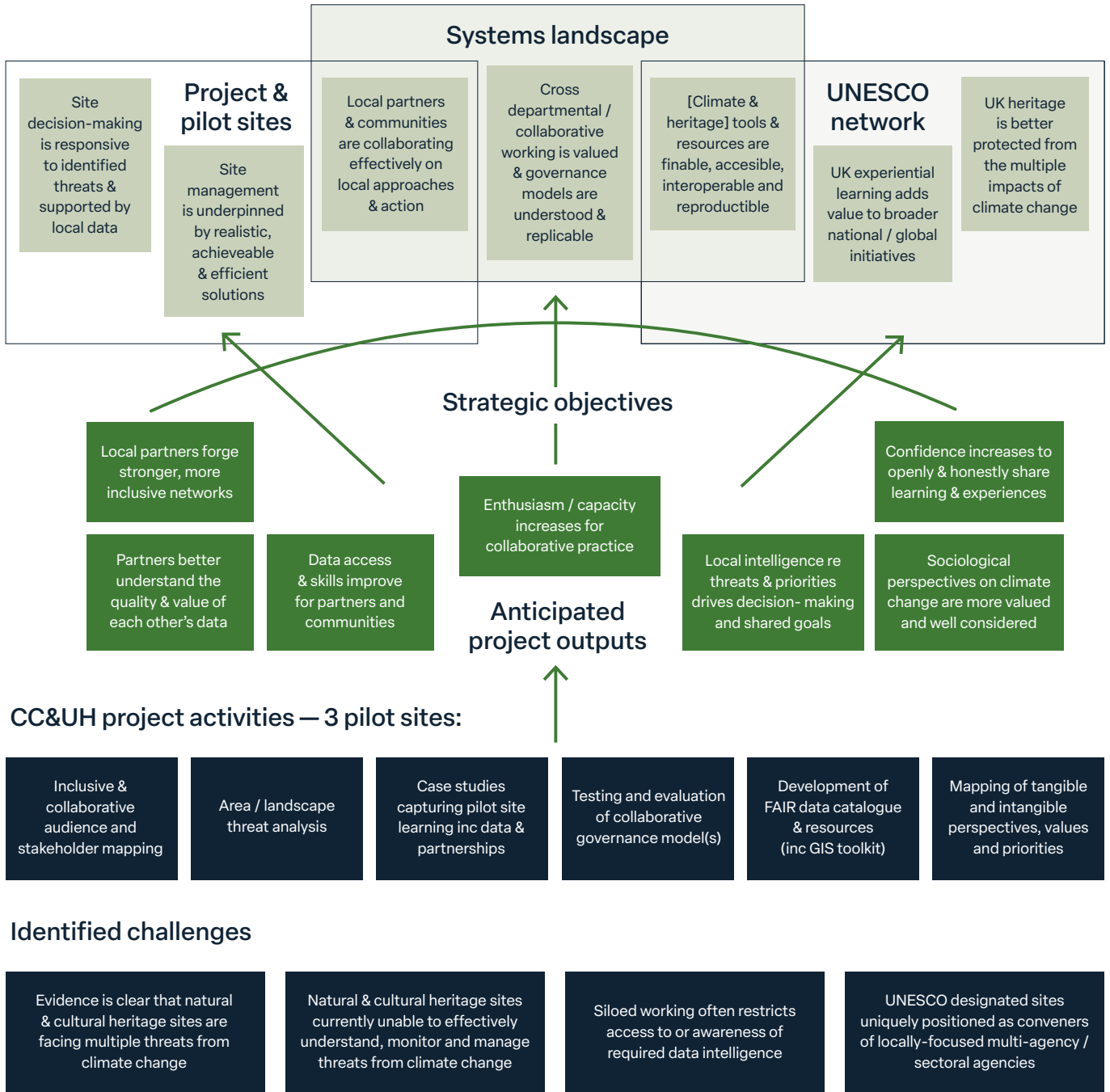
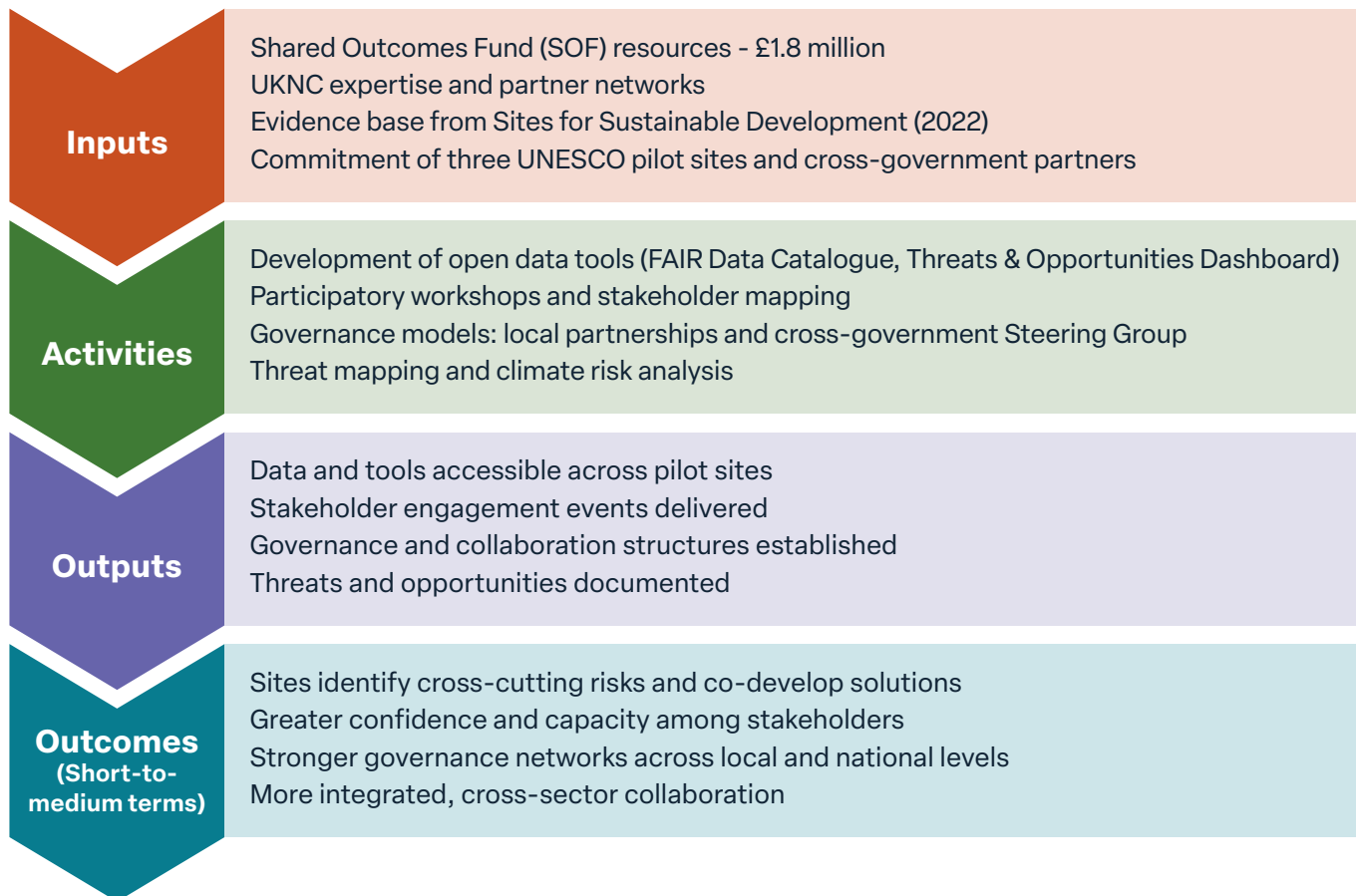


Figure 10: CCUH Schematic Flow (Logic Model)



Aerial shot of the Taw-Torridge Estuary, North Devon UNESCO Biosphere Reserve. *Credit: Graham Hogg*



6

Further Findings (Evaluation)

Left: A local representative from the Braunton Burrows sand dune system (part of North Devon UNESCO Biosphere Reserve) explains how climate change is affecting the dunes' fragile ecosystems and coastal habitats. *Credit: Matt Rabagliati*

Whilst the Realist evaluation of CCUH focused on exploring evidence against the central project hypothesis (see Section 3), key findings have also been uncovered relating to the core assumptions of the project’s Theory of Change, which proposes that cultural and natural heritage could serve as a catalyst for climate action by introducing collaborative governance, participatory approaches, and open data tools.

Each of these further findings are presented in two complementary ways:

- Realist summaries, which position the findings against the established evaluation framework (Context → Mechanism → Outcome → Implication).

- Narrative analysis, which synthesises evidence from pilot sites, national-level research, and project interventions.

This dual format ensures that the findings are both accessible and explanatory: the Realist framing highlights what worked, for whom, in what contexts, and why, while the narrative provides depth and examples. Each of the following findings corresponds to one of the core assumptions in the CCUH Theory of Change. By examining the context, mechanisms, outcomes, and implications in practice, the evaluation tests how far these assumptions held true across different sites and settings.

6.1 Heritage as a Strategic Enabler

Realist Framework	Summary
Assumptions (Context)	Heritage sites face multiple, interconnected climate threats that cannot be managed in isolation. Participatory, cross-sector approaches can unlock new pathways by fostering trust and shared understanding.
Mechanism	Leveraging heritage designations such as UNESCO sites as convening platforms for cross-sector dialogue and management/planning
Outcome	Climate-heritage discussions gained legitimacy, with a broader range of actors engaged throughout the project (e.g. biodiversity, health and community).
Implication	Confirms the assumption that heritage can act as a catalyst for integrated climate action. However, this requires intentional positioning.

Across all three pilots, cultural and natural heritage emerged as a credible and motivating foundation for convening diverse partners around local climate challenges.

The project reaffirmed that heritage is broader than conservation; it can be foundational in enabling and supporting wider conversations around economic, environmental, and social sustainability. It has the potential to act as a catalyst for joined-up and cross-sectoral responses to shared challenges, with a relevant role in policy agendas that integrate climate, culture, and community wellbeing.

This is clearly demonstrated by national-level research and analysis carried out through CCUH, most notably the Research & Innovation Group’s UNESCO Climate Action and Sustainability Research Framework and Agenda, and Liveable Futures, a review of the strategic and systemic role of heritage in the UK. Both emphasise heritage as a key facilitator of action through cross-sector collaboration, inclusive knowledge practices, and more adaptive, community-focused ways of working.

The value of natural and cultural heritage as a convening agent was also evident at the pilot

site level. For example, North Devon Biosphere’s work to support councillors with processes and raise awareness of the potential for inclusion of health, heritage, biodiversity and climate change measures as they develop their Local Plan. Across all contexts, heritage consistently acted as a fulcrum for coordinated responses to systemic challenges.

Beyond emphasising the central role of cultural heritage in local action, CCUH also demonstrated the benefits of embedding climate and sustainability initiatives within UNESCO designations. Results from all project strands pointed to the advantages of UNESCO status and composition, particularly the combination of visibility, credibility, connectivity, and convening power. Together, these factors position heritage as a strategic driver of transformative change.

Testing collaborative approaches in real-world heritage environments, from targeted site-specific action to broader landscape-scale interventions, enhanced the transferability of learning, supporting wider application of CCUH insights across other sites. This process of knowledge-sharing and scaling is amplified by UNESCO’s global network:

“Their [UNESCO] position within a global network facilitates the exchange of knowledge, tools, and outcomes for sustainability experiments – making them powerful spaces for both local innovation and international learning. The UNESCO designation itself brings added legitimacy and visibility, often helping to attract funding, technical expertise, and strategic partnerships.”

UNESCO Climate Action and Sustainability Framework, 2025

However, this role was not automatic. In contexts where climate policy remained siloed, or where heritage was narrowly understood as conservation-focused, positioning heritage as a strategic enabler required deliberate effort. At its best, heritage acted as an integrating force, linking climate priorities with social, cultural, and economic concerns, and framing climate change as part of a wider place-based agenda.

6.2 Complex, Interconnected Challenges Require Place-based Approaches

Realist Framework	Summary
Assumptions (Context)	Governance, data and operational functions are often siloed, limiting adaptation capacity.
Mechanism	Establishing site-level governance models and a cross-Government Steering Group
Outcome	Stronger networks, and improved communication channels across government and local partners
Implication	Confirms the assumption that collaborative governance can overcome silos, but long-term sustainability requires continued resourcing and political support

From the outset, CCUH aimed to test participatory approaches and tools across various contexts. This was intended both to expand understanding and to maximise applicability across different designation types and geographical areas. Testing at three pilot sites and nationally has helped produce a set of accessible, reusable tools for collaborative climate action that could be adopted or adapted in other heritage settings.

At the same time, the process of testing across contexts confirmed that complex, interrelated challenges such as climate change require place-based, locally grounded collaborative responses. This was evident not only at the scale of the three designations but also within the communities and landscapes they encompass. Three key insights emerged:

- Place matters.** Climate challenges manifest differently by context. Threats and Opportunities mapping piloted across the three sites – and extended to the wider UK UNESCO network – highlighted both commonalities and sharp differences. Even within a single designation, threats varied from place to place. Coupled with limitations in data granularity and refresh cycles (noted also in Liveable Futures and the UNESCO Climate Action and Sustainability Research Framework), this reinforced the need to ground action in local knowledge, lived experience, and site-specific expertise.
- Climate challenges are non-linear and uncertain.** While CCUH’s delivery phase was too brief to capture long-term outcomes, the pilots

underscored the unpredictable and shifting nature of climate impacts. UCL Climate Action Unit tested participatory approaches for adaptable response, while Niaxo examined local data cataloguing to record and share relevant data among partners over time. Such approaches will be essential if heritage sites are to respond flexibly to changing conditions.

- Long-term challenges demand continuous, integrated responses.** Since climate change is a long-term issue, resilience relies on embedding responses within local communities and partner organisations. This emphasises the importance of inclusive and representative participation in designing and implementing adaptation measures, and underscores the significance of community agency.

6.3 Data Is Foundational, But People are the Real Drivers of Change

Realist Framework	Summary
Assumptions (Context)	Developing open, scalable tools will allow knowledge to transfer beyond pilot sites.
Mechanism	Co-developing open source tools (Data Catalogue, Threats and Opportunities Dashboard), and testing participatory approaches (CAU Workshops, data discovery sessions)
Outcome	Increased awareness of data use and gaps, data reframed as a facilitator of collaboration, not a substitute for dialogue between partners, stronger joint work between partners
Implication	Confirms that data is critical to decision-making, but only when embedded in people-centred processes that enable interpretation, trust and collective action.

A key insight from the CCUH project is that people, not data, are central to place-based action, and that responses to systemic challenges like climate change benefit from expansive dialogue and a diversity of local perspectives. Whilst data plays an important part in planning and decision-making, CCUH found that there is a balance to be struck in creating responses that are experience-led, and data-informed.

For example, learnings from the UCL Climate Action Unit workshops demonstrate the value of bringing together a broader range of partners from the earliest possible opportunity, and in holding facilitated space for cross-disciplinary discussions on areas of common interest.

“The process was a valuable exercise in cross-cutting discussion and decision making, with clear actions that can be taken forward by decision makers”

Fforest Fawr Geopark

This approach, modified to meet need in three different pilot contexts, was welcomed as an enabler of constructive collaborative action, with all three pilots exploring how to continue this work post-CCUH. Bound to this work is an acknowledgement of the need to embrace differing perspectives when addressing cross-cutting challenges like climate change – this can only be achieved by bringing people together in a

depolarised space, and through the careful integration of data to support discussion, rather than it being used to assume positions on a given subject.

Importantly, CAU concluded that focusing on people to initially frame the challenge paved the way for more effective and appropriate data use. Decision making grounded in lived experience and local expertise enabled data and digital tools to be used to support collective understanding, rather than as a decision-maker in its own right. By grounding the use and application of data in locally-informed approaches and knowledge, data can be interpreted within the correct context, whilst also empowering agencies and communities to act. This perspective was also reported in *Liveable Futures*, which emphasised the importance of interpreting data through local knowledge.

Another key learning focused on the role of data and digital resources in enabling participatory practice.

Of all the data tools tested, all three pilots sites identified the data catalogue as the most useful, in that it specifically focused on identifying, collating and sharing data in support of effective collaborative working across designations. Similarly, whilst acknowledging that further refinement is needed regarding user experience and analytical capabilities, the proof of concept Threats and Opportunities Dashboard was noted as having real potential for bringing people together around common challenges.

Both resources support closer joint working, emphasising the idea that technology's primary goal should be to support partners and communities to understand and apply data accurately and proportionately. Tested in real-world settings, these open-source tools show promise for wider use in other heritage settings.



Representatives from UNESCO sites across Scotland at the Climate Change and UNESCO Heritage Project regional workshop in Perth, Scotland. *Credit: Matt Rabagliati*



7

Key Findings from the Process

Left: Representatives from UNESCO sites across the South West of England at the Climate Change and UNESCO Heritage Project regional workshop in Bath, England. *Credit: Matt Rabagliati*

In addition to the evaluation findings and the observations on movement against the Theory of Change, CCUH generated valuable insights into the process of project delivery itself.

These process lessons are particularly relevant to the Shared Outcomes Fund, which was designed not only to test new approaches in specific sectors but also to assess how government, partners, and communities can work together in innovative, place-based ways.

This section, therefore, presents Key Findings from the Process, highlighting what was learned about collaboration, learning, governance, coordination, and risk management. These lessons complement the evaluation findings by providing transferable insights for future pilots and programmes operating at the intersection of climate change, heritage, and cross-government working.

7.1 General comments

CCUH was extremely ambitious in its aims and objectives, and the significant volume of activity delivered within a short window of time presented challenges to coordination, delivery and resilience.

However, several other factors contributed to this challenge. Unexpected, but unavoidable, consultant absence affected the delivery timescales for one intervention, which had a knock-on effect for other project dependencies. This, coupled with the volume of work underway, meant that activities had to be either run concurrently, or in close proximity, which made planning, resourcing and sequencing more challenging to overcome. The pilot nature of the work also meant that, when some things didn't work out, or produced unexpected results, it was difficult for areas of dependency to compensate – this was compounded by the lack of time for reflection and response, caused by the condensing of delivery timescales.

Additional pressures were also encountered regarding the underestimation of the time, resource and effort required to facilitate six UK regional test and learn workshops, and the level of core team support needed to support the development, completion and analysis of beta data tools. This, coupled with unforeseen

requirements to adjust the evaluative approach for the project, the level of participation in editing and finalising project outputs, and other continuing project administrative duties (e.g., steering groups, project boards) added to an already challenging delivery agenda.

Although all project outputs were delivered on time, and a wealth of learning was generated, the reflections above – in conjunction with the key findings below – are submitted to inform future project design and delivery.

7.2 Joint Working should be Treated as a Cultural as well as a Technical Shift

Lesson: Effective collaboration requires investment in relationships, trust and openness – not just technical solutions or governance structures.

Narrative: Change is fundamentally about people. CCUH brought together new communities of practice for a limited time, and found that investing in local and existing relationships (through UNESCO sites) improved coordination, communication, and trust among partners. Creating the conditions for openness and innovation enabled deeper collaboration that went beyond transactional delivery, and also improved resilience by allowing teams to raise and resolve emerging risks (also see **Section 7.5**).

As part of project design, CCUH established an informally-managed Slack community space for networking, and included a series of cross-project events designed to support the formation of new connections across participating sites and strengthen existing relationships. These events were repeated throughout the delivery phase, with each pilot site hosting a cross-project learning event – bringing people together in this way had several benefits:

- **Project cohesion was strengthened** through these in-person events, which provided chance for the community to discuss points of interest, concern and/or challenge

“[It’s] good that we are keen to engage across projects – a break from the past when we were more silo-based”

North Devon event – project reflections session

- **Project learning was enhanced** by open knowledge exchange and greater, contextualised, transferrable learning from hosting events in pilot locations. Interestingly, insights were often triggered during less-structured parts of the cross-project events, suggesting the value of incidental community conversations and the importance of building in time for similar activities.

“[We’ve] encountered curiosity [and] began to research and consider wider perspectives and build understanding”

North Devon event – project reflections session

- **Project community building was tested** as an additional intervention; by bringing different disciplines together and fostering a sense of collective enquiry, the project also piloted a more cross-disciplinary and cross-sectional approach, something identified as an enabler for climate action and adaptation.

“The three sites are working together – [they were] disparate at the beginning, closer at the end!”

North Devon event – project reflections session

The link between CCUH productivity and the establishment of a strong project community is difficult to quantify, but its effect on the project cannot be understated; by investing in the project as a community of people, and devoting time and energy to build genuine relationships, the project has achieved collaboration at scale, building on existing pilot expertise and capacity and supporting closer connectivity between partners, organisations and communities.

Implication for future projects:

Future SOF and cross-government pilots should treat joint working as a cultural shift as well as a technical one, investing deliberately in relationship-building infrastructure (e.g. shared digital platforms, peer-learning events) at the local level as core delivery elements.

7.3 Making Space for Learning, Not Just Delivery

Lesson: Pilot projects focusing on testing and learning should safeguard sufficient time for reflection, absorption and response to emergent learning – this should be built into delivery timescales.

Narrative: Innovation is iterative, exploratory, and uncertain by nature. Making space and time for this uncertainty and the inquisitive nature of the pilot enabled the testing and refinement of new models and approaches. Allowing for local responses and pivots to emerging thinking was seen as an important aspect of project design, and essential for addressing placed-based challenges. This was especially important when dealing with variable data landscapes and differing digital and organisational maturity levels. Future iterations of UK Government Funding should allow space for learning and challenging existing ways of working/conventional wisdom.

Feedback from pilot sites, and the core team, acknowledged that, whilst the project achieved its intended outcomes and generated substantial learning, more time for reflection and readjustment to respond to these pivots would have been helpful during the delivery process. Additionally, operating within an uncertain environment, and inquiry-led rather than fixed within original parameters, was uncomfortable at times; this impact would potentially have been lessened, if the pace of delivery had been more moderate (also see **Section 7.5**).

As part of this process, it is also important to reflect on how success is interpreted, both within the project community and amongst external stakeholders and funders; as a pilot, all learning and outcomes must be seen as valid and valuable in supporting learning – it is also worth considering individual and/or organisational resistance to acknowledging and sharing perceived failure, and how best to address any concerns.

By reinforcing and embodying this approach to supportive and non-judgemental learning throughout the project, the CCUH team has enabled pilot sites and consultancies to work together to explore and test areas of emergent interest and potential. Arguably,

this flexibility to test and learn would be diminished in a project focused solely on the delivery of a set of pre-ordained outputs.

Implication for future projects:

Future pilot projects should account for emergent learning as part of active delivery, including opportunities for reflection, responsive project management, and the creation of a safe space to share learning.

7.4 Cross-Departmental Collaboration Must Be Designed In, Not Bolted On

Lesson: Support for project objectives and a willingness to engage cannot guarantee consistent and active participation in project delivery.

Narrative: The project demonstrated that effective joint working requires intentional infrastructure – shared governance frameworks, co-developed objectives, and clearly defined roles. The Steering Group brought together 10 departments and statutory bodies, enabling horizontal alignment across policy silos (e.g., climate, culture, data, environment). This structure was essential for building trust and enabling decisions that reflected shared outcomes. However, the pilot also demonstrated that coordinated cross-sectoral and organisational working needs to be intentionally designed or transitioned to at a national, regional and local level. Short-term pilots that require cross-sectoral work often conflict with existing siloed working, and lack of human resource capacity to effectively engage with pilots in a meaningful way. While this was mitigated through the pilot project, these challenges existed at a board/governance level.

Cross-government support was evident through strong engagement with project surveys, in-depth interviews on aspects of interest, and departmental participation in cross-project learning events. However, effective cross-departmental collaboration requires continual adjustment. Whilst project support was evident throughout, Steering Group representation was impacted by external work priorities and constraints, whilst interest in specific areas of project delivery varied depending on active

delivery phase in play. Restricted capacity as a limiter to willing engagement was also noted at pilot site level. Greater clarity around phases of work and stakeholder relevance could have supported partners to engage more efficiently with the project, especially at key decision points.

Implication for future projects:

Governance arrangements for cross-departmental projects must recognise external influences on stakeholder capacity regarding engagement and prioritisation of resources – transparent governance and targeted communications on progress and impact may support partners to retain knowledge of project progress, whilst targeting active participation for periods of high interest/influence.

7.5 Pragmatism Is Needed When Testing Complex Interventions in Uncertain Environments

Lesson: Short term innovation projects can either test a limited number of interventions in depth or a larger number in less detail – a decision should be taken on this at the outset.

Narrative:

Scope and Duration: CCUH aimed to test collaborative approaches to interconnected challenges, recognising that responses needed to bring together a wide range of local, regional and national partners. Although successful in meeting its objectives, the project demonstrated the time and effort needed to foster such complex collaboration, including essential setup for project design, onboarding, and establishing foundational knowledge. Attempting to complete this within a fixed 18-month period resulted in a condensed delivery schedule with complex multi-strand activity occurring in parallel; this placed unsustainable demands on local stakeholders, made effective co-ordination difficult, and affected staff resilience.

Coordination

Project complexity, comprising multiple pilot sites, consultancy interventions, and national activities, made coordination difficult within an emergent



Participants at the opening session of the Climate Change and UNESCO Heritage Project held at the Garden Museum in London. *Credit: Matt Rabagliati*

‘test and learn’ environment. Despite ongoing central efforts to align consultancy work-packages, through sequenced delivery plans and regular cross-consultant delivery meetings, opportunities to maximise inter-consultant collaboration and minimise project burden at site level were not fully realised.

The pace and scope of committed work, and intentional variation at pilot site level complicated co-ordination, which was exacerbated by an emergent, iterative approach to delivery. Although this provided considerable pilot learning, and produced site-specific knowledge essential for wider replicability and scaling, it presented challenges in stakeholder engagement and sustained participation.

Risk

The project adopted a proactive approach to risk management, whereby risks and opportunities were identified, tracked and responded to via a comprehensive risk register. As the project was exploratory, a risk aware position was taken, with most risks being monitored but accepted; mitigations were implemented to reduce risk where necessary.

Risks related to strategic and operational delivery, and reputational risk, but also captured attitudinal elements about collaboration and data accessibility – by retaining a focus on areas (and conditions)

of importance to the project, CCUH was able to foreground potential challenges and address them constructively and collaboratively. For example, active risk management enabled the project to respond to emerging challenges at site level regarding survey saturation amongst stakeholders, with alternate plans for evaluation implemented as a result.

This approach also built on the pilot nature of the project, recognising that some activities were likely to fail – this is the nature of pilot interventions – however, by identifying learning whilst taking a proportionate position to risk, the project was allowed to progress in a controlled but responsive way.

Implications for future projects:

Future complex innovation projects, especially those operating at landscape scale, should consider longer durations or a modular approach to iterative testing and development. Such projects might also benefit from focusing on smaller-scale test-cases within designations to simplify planning and delivery, or a tighter focus on certain aspects of project enquiry (e.g., data tools or participatory working, but not both). Regardless, innovation projects should take a transparent risk tolerant approach to encourage enquiry and knowledge generation.



8

Project Legacy

As highlighted throughout this assessment, the enduring legacy of the Climate Change and UNESCO Heritage (CCUH) Project lies in its contribution to the growing development of place-based approaches and multi-stakeholder partnerships to address interconnected 21st-century challenges.

Place- and Systems-Based Approaches

The project has demonstrated the critical importance of local nuance in addressing global challenges. While climate impacts are shared, the ways they are interpreted, acted upon, and managed are deeply shaped by the social, cultural, historical, and political characteristics of local places. While many of the challenges facing the three pilot sites are shared (flooding, wind, drought), how they are interpreted and their local impact, as well as proposed solutions, differ. The project has also highlighted the need to incorporate more-than-human perspectives into place-based approaches, ensuring that natural systems, species, and landscapes are fully integrated into decision-making processes.

Culture as the Foundation of Sustainable Development

The project has practically strengthened the argument for prioritising cultural and natural heritage within sustainable development and climate solutions. Heritage is not only affected by climate change; it also influences how communities define what is valuable, how they respond to crises, and how they envision sustainable futures. By emphasising this fundamental role, the project has positioned culture as both a victim of and a catalyst for climate resilience and adaptation.

Showcasing and Global Alignment

The CCUH tools and resources will be formally launched at a global event in Paris in October/November 2025, co-organised with DCMS and the UK Delegation to UNESCO and in partnership with the World Heritage Centre and the Geoparks and Biosphere Unit. The launch will align with UNESCO's new Partnership Strategy and place the CCUH outputs alongside the UNESCO Global Sites Navigator – complementing global data frameworks with practical, locally grounded tools.

The project will also be showcased by the DCMS Minister at the Mondicult Conference in Barcelona (October 2025) and at the UNESCO Biospheres Congress in Hangzhou, China (September 2025). These high-profile platforms highlight the UK's leadership in demonstrating how culture and heritage can be foundational to integrated climate and sustainability responses.

Local Uptake and Continuity

Additional investment from Amazon Web Services (AWS) has secured long-term hosting of the CCUH tools for the three pilot sites. This ensures that local communities can embed the resources in their planning and delivery. For example, the North Devon Biosphere is already using the tools to increase understanding of how nature could help alleviate health impacts of climate change.

Through the project, the UK National Commission for UNESCO also brokered a £30–40k investment by Cassandra into Hadrian's Wall UNESCO World Heritage Site. This work utilises AI-enabled, threat-based analysis to assess climate risks to underlying archaeology, demonstrating how the tools can unlock new partnerships and innovative applications.

Scaling through International Partnerships

The project has played a pivotal role in shaping international collaboration. UKNC and DCMS collaborated with the British Council and AHRC/UKRI to host a symposium of climate change and heritage in Spring 2025, enabling strategic discussions between projects from around the world. Furthermore, UKNC, DCMS and British Council have been central to the formation of an emerging cross-European programme on climate change and heritage; learning and tools from CCUH directly informed the design of the programme, including the creation of a 1.5 million (EUR) Work Package on UNESCO sites as “living laboratories”. This Work Package, now to be delivered by the British Council, will scale the CCUH approach across dozens of countries, embedding its methods within a global research and policy infrastructure.

The Research & Innovation Strategy and dedicated R&I Group established through the project are also global firsts. They will be central to ensuring long-term funding for UNESCO sites as place-based living laboratories, helping to channel resources into communities across the UK and beyond.

International Collaboration and Soft Power

The CCUH project has shown the role UNESCO sites can play as anchors for international collaboration and soft power. Shared events, such as those with UNESCO and Namibian partners, have demonstrated how sites facing similar challenges can collaborate across continents, connecting communities in the UK with those in Africa. The project has also sparked conversations with UNESCO sites and governments worldwide, including supporting existing sites with informed-data decision making in Orkney, to the establishment of new Biosphere Reserves in Nepal with FCDO.

By shaping UNESCO’s procedures and influencing its emerging Partnership Strategy, the project has strengthened the organisation’s ability to capitalise on its unique global network. In doing so, CCUH has cemented UK leadership in supporting UNESCO sites, while also demonstrating their potential to drive integrated, relational approaches to climate change and sustainable development.



Aerial shot of Carreg Cannon Castle, part of the Fforest Fawr UNESCO Global Geopark. *Credit: Graham Hogg*

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- Department of Culture, Media and Sport
- Department for Science, Innovation and Technology
- CCUH Steering Group organisations
- CCUH Research and Innovation Group members
- North Devon UNESCO Biosphere Reserve
- Fforest Fawr UNESCO Global Geopark
- Hadrian's Wall UNESCO World Heritage Site
- Niaxo Ltd
- UCL Climate Action Unit
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- UK Research and Innovation
- UNESCO Sites Navigator team
- UK UNESCO Designation Regional Networks

Project Steering Group:

The work of the Climate Change and UNESCO Heritage project has been supported by the following organisations as part of its dedicated multi-agency Steering Group:

- British Geological Society
- CADW
- Department of Culture, Media and Sport
- Department for Science, Innovation and Technology
- Foreign and Commonwealth Development Office
- Geospatial Commission
- Historic England
- Historic Environment Scotland
- Natural England
- Office for National Statistics
- UK National Commission for UNESCO

Research and Innovation Group:

The work of the Climate Change and UNESCO Heritage project has been supported by the following organisations as part of its dedicated cross-sector expert Research and Innovation Group:

- Bureau for the Contemporary and Historic (ButCH)
- British Council
- English Heritage
- Historic England
- Leeds University Business School
- Loughborough University
- National Trust
- Thirlwall Associates
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- University of Birmingham
- University of Edinburgh
- University of Manchester
- University of Nottingham
- University of the Highlands and Islands
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Climate Change and UNESCO Project Team

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Appendix A

Climate Change and UNESCO Heritage Interdepartmental Steering Group

The HM Government Departments and national agencies represented on the Climate Change and UNESCO Heritage project are as follows:

- British Geological Society
- CADW
- Department of Culture, Media and Sport
- Department for Science, Innovation and Technology
- Foreign and Commonwealth Development Office
- Geospatial Commission
- Historic England
- Historic Environment Scotland
- Natural England
- Office for National Statistics
- UK National Commission for UNESCO



Sign post in North Devon UNESCO Biosphere Reserve. Credit: Graham Hogg

