
Bertra and its Environs: Groundwork for a Landscape Climate Adaptation Plan

The vision of this project is to create a forum for the integrated management of Bertra Strand and its surrounding landscape. The beach-dune system is in a precarious state, with multiple pressures including climate change threatening its long-term future. The project is engaging local communities and stakeholders, local and national authorities and the academic community in a joint approach to managing and planning for this valuable landscape in the face of climate change.

The project is a *pilot landscape* in the AELCLIC-PATHFINDER project (<https://aelcllicpathfinder.com>). AELCLIC-PATHFINDER is a partnership of 20 institutions across the EU, seeking to act as a catalyst in developing future site-specific Landscape Adaptation Plans to Climate Change (LACAPs). This requires forming local consortia to work together on issues and future adaptation options.

Aim

To create a framework that integrates relevant stakeholders in the sustainable management of Bertra's beach-dune system, providing a strategic and evidenced-based context for the future planning and management decisions. *(In this context 'sustainable' means that economic, social and environmental elements all need to be explored when looking at possible future pathways)*

Implementation Phases (2019)

- 1) Stakeholder identification and engagement
- 2) Identification of climate change impacts and opportunities
- 3) Solidifying work for future development:
 - a. Creation of a *Stakeholder Forum*. Stakeholders sign a 'Memorandum of Understanding' (an agreement to work together into the future)
 - b. An outline LACAP: what the goals and substance of a plan should be (the development of specifics for a plan is not part of this current project). What resources are needed to proceed?

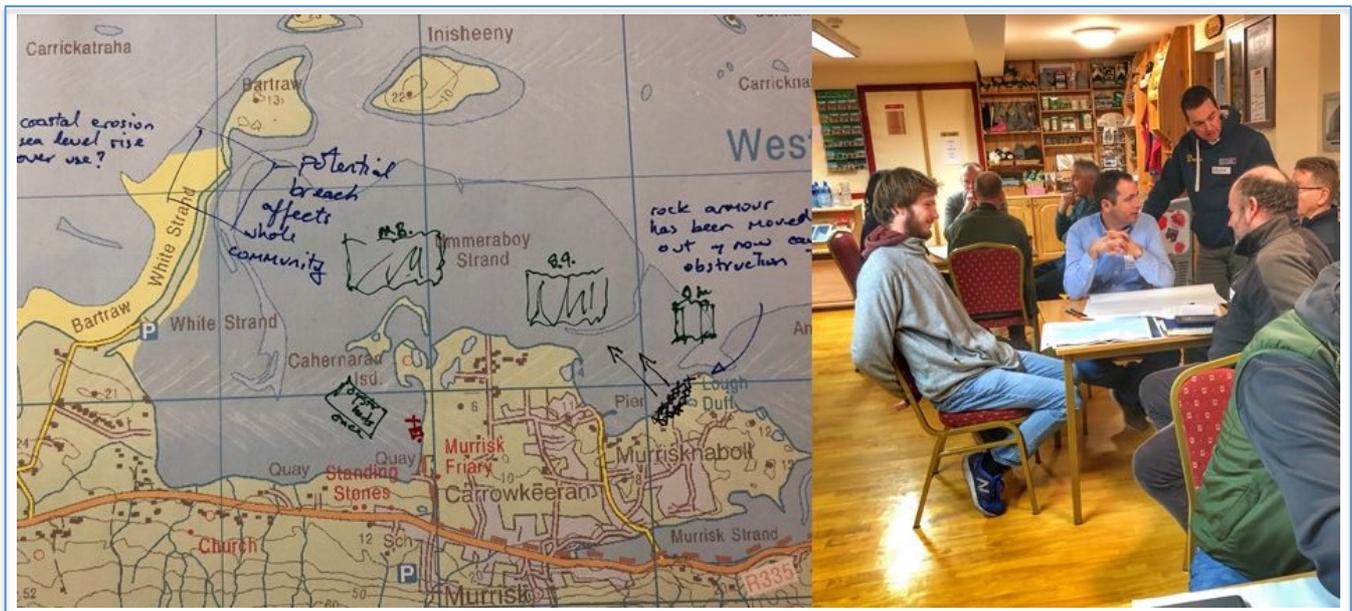


Progress to date (July 2019)

Phases 1 and 2 have been completed through two workshops and a series of meetings.

Workshop 1 Summary: Croagh Patrick Visitors Centre: The workshop consisted of a series of facilitated "meeting tables" where participants were encouraged to share their thoughts on a number of linked themes, with the aid of area maps. It was attended by locals from the immediate community, members of the National Parks and Wildlife Service, Mayo County Council and the Climate Action Regional Office. Some of the key points that emerged were: The physical and cultural landscape is highly valued locally, with its beauty, health benefits and ability to attract tourism all mentioned. The immediate threats stem primarily from coastal storms, resulting in erosion and flooding.

There are, however, issues that exacerbate these threats: tourism pressure; infrastructural issues; changing agricultural practices; lack of technical support and local awareness of future response options. [\[see Appendix 1 below for more details\]](#)



Workshop 2 Summary: May 2019: Clew Bay Hotel: This workshop had a broader scope, looking at the marine side of the study site. It consisted of a talk on aspects of Marine Spatial Planning for the area, followed by informal discussion of the issues in light of climate change. It was primarily run by the students and staff of NUI Galway's MSc in Coastal & Marine Environments. It extended the stakeholders engaged in the work, including a local sailing club, outdoor activity centre and aquaculture operations. [\[see Appendix 1 below for more detail\]](#)

The workshops were preceded and followed by a series of smaller meetings (and interviews) between some key stakeholders. These are crucial in starting a conversation on a new way forward (adaptive co-management) in the decision-making related to this landscape.

Some initial findings from this work (including that of Dearbhla Jordan) echo the earlier points raised. It further emphasising the need for a coordinated long-term approach, which includes the views of the local communities.

Running parallel to the project work, the local authority has developed a [draft climate adaptation strategy](#) for the county. The climate change impacts and opportunities identified at that scale are highly relevant to this local scale project. How these translate to a more specified local scale will be an interesting aspect of phase 3 of the project. There is also ongoing scientific work by Geography Dept staff.

Next steps

A final workshop to complete the goals of Phase 3. This is envisioned as two events 1) an exposition by invited experts on nature-based solutions to erosion and flooding, 2) a workshop to develop the outline reference for a LACAP & for stakeholders to sign up to working together to develop it and achieve its goals. To add value to this, the feasibility of tying in to a proposed Climate Action event being run by Mayo County Council will be assessed.

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Notes

- *The project is modelled on an adaptive co-management approach. The essence of this approach is that stakeholders work together in a cyclical manner ('learning by doing', or reviewing action taken after some time to see what is working and adapting the plan based on the review)*
- *The Bertra beach-dune system is part of a wider landscape where people and the physical environment coexist in a complex nature. In this sense any decisions on the future of Bertra has to consider the wider surrounding space, and sustainability (i.e., economic, social and environmental elements)*
- *The study area is defined as a rectangular box: from Bertra Beach (western limit) to Belclaire (eastern limit). See map above which includes the northern and southern limits too.*
- *The system has a long history of engineering interventions, with some reports commissioned from engineering consultants that looked at possible options for the future.*
- *Although the project is part of the AELCLIC-PATHFINDER, it is not a funded project. To date academic staff from the Geography Department in NUI Galway, members of the Climate Action Office of Mayo County Council, the Murrisk Community Development Association and NPWS staff have committed to give some of their time to the project. A number of Geography's MSc class (coastal and marine environments) are also contributing time to the project.*
- *The project should not be seen as an academic exercise as the relevant responsible authority – Mayo County Council – is committed to finding viable solutions to the real pressures in the area.*
- *The project is seen as an initial stage of a longer process which should result in a firm Climate Action plan for the area. That plan and any proposed actions will need to proceed within existing realistic constraints:*
 - *local, national and international legislation (including AA, SEA and EIA)*
 - *local and national strategic priorities*
 - *funding opportunities*
 - *future climate scenarios*
 - *possible solutions, including nature-based solutions*

APPENDIX 1

ACTIVITY: Workshop 1

PLACE: Croagh Patrick Visitor Centre

ORGANIZERS:

Liam Carr & Kevin Lynch / National University of Ireland Galway (NUI Galway)

David Mellett / Climate Action Regional Office (CARO)

PARTICIPANTS:

Murrisk Development Association / Non-affiliated local residents / NUI Galway / CARO / National Parks and Wildlife Service

KEY OBJECTIVES OF THE ACTIVITY:

The purpose of this scoping workshop was: 1) to bring Bertra community members together with other stakeholders; 2) to discuss visions for Bertra Beach and, more broadly, Clew Bay; 3) to identify various possible opportunities as well as challenges.

STRUCTURE:

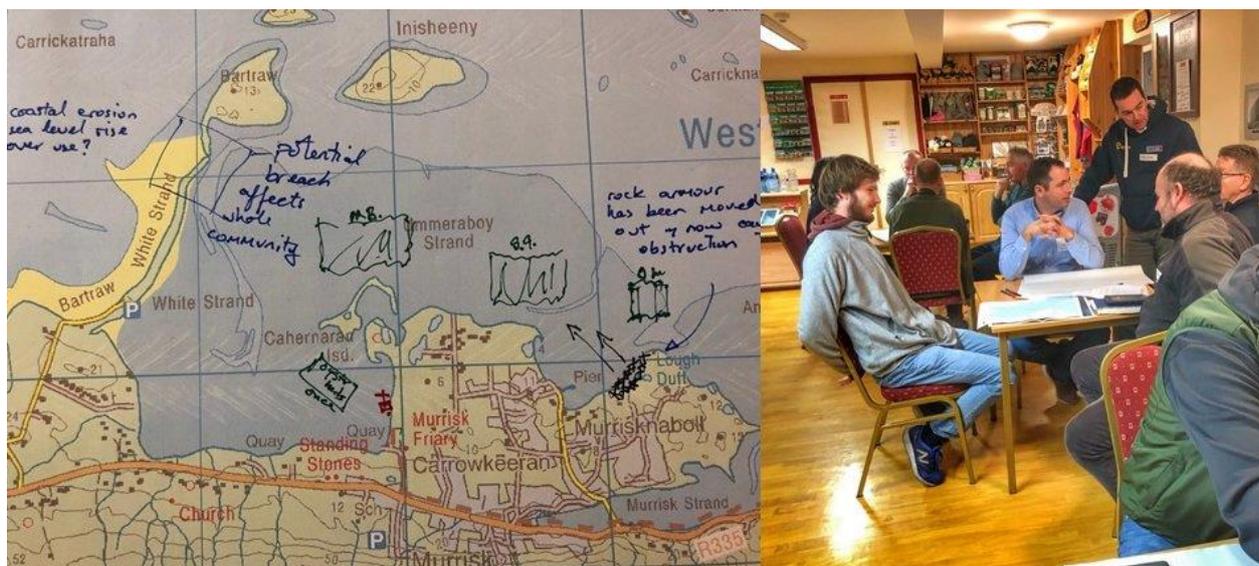
The workshop consisted of a series of facilitated “meeting tables” where participants were encouraged to share their thoughts on a number of linked themes. Representatives from NUI Galway facilitated each table, allowing participants (a mix of stakeholder groups at each table) to engage on the subject matter as they saw fit. The themes discussed were:

Clew Bay Area

- What do you like about the area? / Why do you like living or working in the area? / What makes the area special?

Long-Term Vision for Clew Bay and Bertra

- What will the Clew Bay area will look like 10-years' time? What *should* it look like?
- How might it be used? How might it be managed?
- How might your vision for Clew Bay area affect Bertra's future?



Challenges to the hopes and expectations for the future

- How might threats from the natural environment affect Bertra / Clew Bay?
- In what way might economic issues be important to Bertra / Clew Bay?
- What social & cultural issues may be relevant to the area's future?
- Are there any other issues that might affect Bertra / Clew Bay future?

Human and other resource needs for ensuring Bertra's and Clew Bay's communities and environment are healthy and prosperous in the future

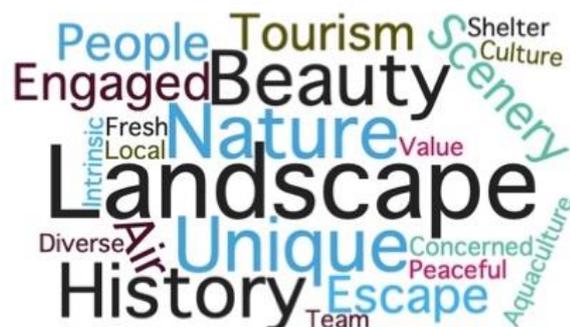
- What resources are necessary for achieving your vision(s)?
- What opportunities are there to fund your ideas?
- How should your vision(s) be funded?
- What are the necessary partnerships for achieving your vision?
 - Which stakeholders are currently active and helpful?
 - Which stakeholders are currently not active, but should be?
 - (or active but maybe not as effective as they could be)



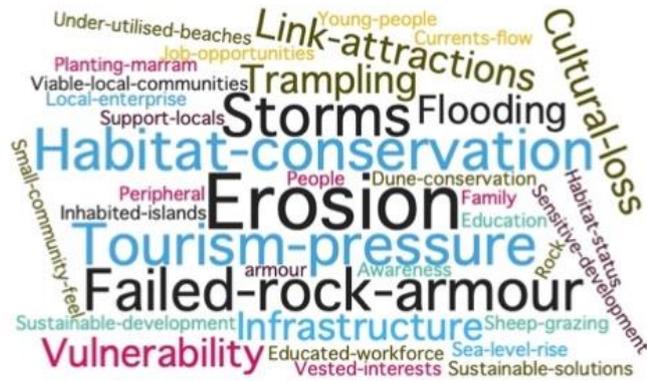
SUMMARY:

The discussion of each topic is summarised below using a *wordle*. The larger words are those that were used most frequently in the conversations across the four tables. The workshop and the points it raised should be considered another layer in the information/knowledge contributing to the process, rather than being statistically representative of the views of all the local communities and stakeholders.

Landscape value:



**Challenges
and issues:**



**Resource
needs:**



ACTIVITY: Workshop 2

DATE and TIME: May 2019

PLACE: Clew Bay Hotel Westport

ORGANIZERS:

Liam Carr & Kevin Lynch / National University of Ireland Galway (NUI Galway)

David Mellett / Climate Action Regional Office (CARO)

PARTICIPANTS:

Murrisk Development Association / Non-affiliated local residents / NUI Galway / CARO / National Parks and Wildlife Service

KEY OBJECTIVES AND STRUCTURE:

This workshop had a broad scope, looking at the marine side of the pilot landscape site. It consisted of a talk on aspects of Marine Spatial Planning (MSP) for the area, followed by informal discussion of the issues in light of climate change. It was primarily run by the students and staff of NUI Galway's MSc in Coastal & Marine Environments. It extended the stakeholders engaged in the work, including a local sailing club, outdoor activity centre and aquaculture operations.

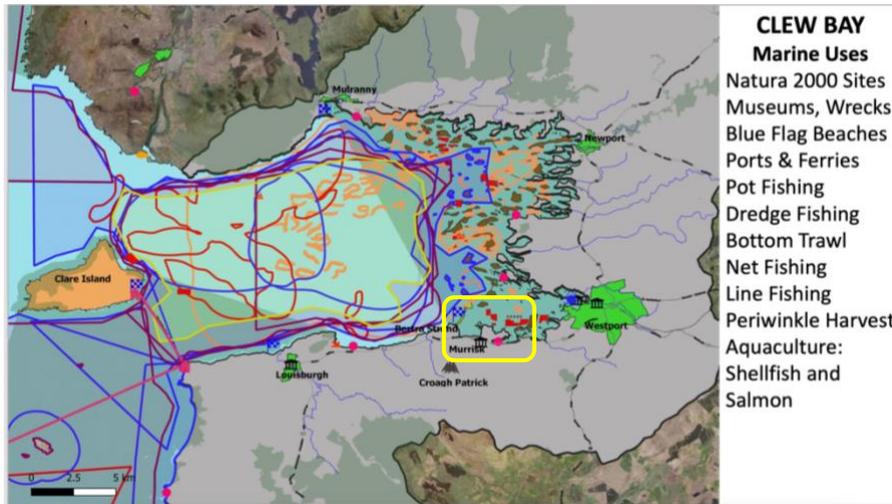
The stated objectives were to learn from stakeholders what they think regarding Clew Bay and its positive attributes? Where they see potential for economic growth? Where they would like to see further environmental conservation efforts? How you would like to see Clew Bay managed in the future, giving regard to climate change effects?

SAMPLES SLIDES FORM THE TALK:

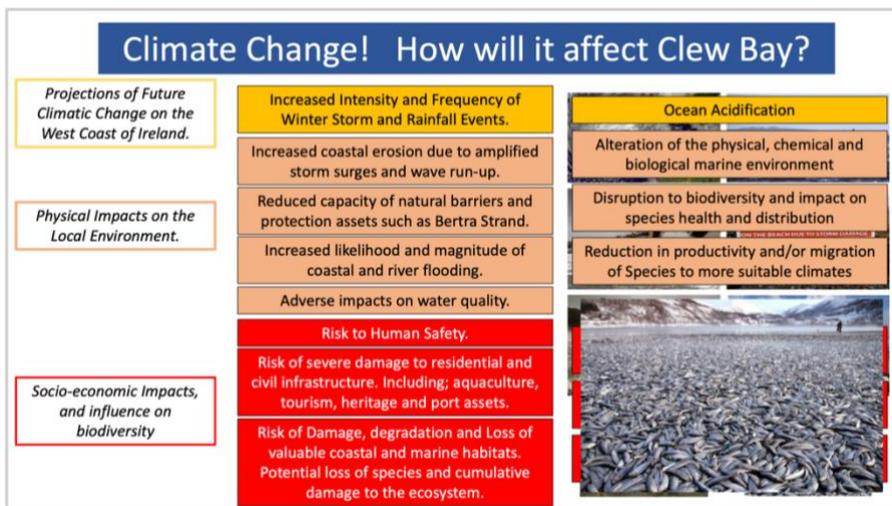
The interaction between climate action, MSP and terrestrial planning:



The complex overlapping activities that take place in the bay, with land-sea interactions an important aspect. The study site for the AELCLIC project is marked with a yellow box.



The projected climate change effects for Clew Bay.



The cover slide for the talk.

