

## **Sustainable Resilient Coasts: Rathlin Island Coastal Sustainability Action Plan**



### **Introduction**

This Coastal Sustainability Action Plan was created as part of the Sustainable Resilient Coasts project (2020- 2022). It sets the scene of the Rathlin Island case study, identifies issues and opportunities facing the islands peripheral community and identifies how actions based on these could contribute towards Agenda 2030 and the UN Sustainable Development Goals.

### **Rathlin Island**

Rathlin Island is Northern Ireland's only inhabited island, lying 6 miles off its north coast. The L-shaped Island is 4 miles east to west and 2.5 miles north to south. The underlying geology makes the island visually striking as a white limestone base layer sits below contrasting, dark basalt layers. The Islands landscape is one of undulating hills and grassland running to steep rugged cliff edges forming high headlands with crashing waters below. Land sweeps down to the sea at Church Bay providing the main access point and settlement on the island.

Rathlin Island is home to some 160 permanent residents, across 70 households and is thought to have been inhabited for over 1,500 years. People working and living on the island have shaped it, evidenced by buildings, land workings and signs of industry along the coastline and inland.

Two ferries operate from Ballycastle, the nearest town, bringing residents, supplies and approximately 40,000 visitors per year. Most visit the RSPBs Seabird Centre, where a spectacular array of Atlantic Puffins can be seen. Private sailings, commercial fishing and seaweed harvesting operate in the surrounding waters. The ties to sealife are clear, with three lighthouses on the Island; East Lighthouse, West Light house and Rue Lighthouse.

The community are represented by Rathlin Island Development and Community Association (RDCA).

### **Sustainable Resilient Coasts Project, the Case Study**

The Sustainable Resilient Coasts Project is a transnational project funded through the NPA Programme. It focuses on the future challenges and development of coastal areas in the NPA region. The main objective of COAST was to develop a Toolbox focusing on SMART Blue Growth, based on principles of Sustainability, Mitigation, Planning, Adaptation, Resilience and Transition. A number of

themed case studies were required for this project including a case study where methods to protect or preserve natural and built heritage could be explored and trialled, with University College Cork providing the drone expertise.

The rural community on Rathlin Island face many challenges similar to other areas in the NPA; unique coastal heritage goes unmonitored and underrepresented with tangible and intangible heritage connections lost over generations or to the harsh coastal elements. To address this challenge CCGHT chose Rathlin Island as the case study location for the Sustainable Resilient Coasts project. This decision was made following consultation by online meeting, phone call and day to day work with the community via the Rathlin Island Development Community Association (RDCA).

Following consultation with the community it was agreed that records of the coastlines natural and built heritage were needed, upon which the layers of cultural history could be documented. To ensure the community had capacity to document their island and heritage three residents were trained and certified by CAA as drone pilots. Furthermore, two locations were identified to start this digital record collection; Doon Point (a spectacular basalt headland) and East Lighthouse (a striking lighthouse with a compound). The methodology developed by University College Cork was trialled during the drone filming at these two locations in Spring 2022. The data collected was taken to create high quality 3D models of both locations, thus establishing the digital archive which can be built on through regular modelling and comparison.



The 3D models require specific software to run and view. Therefore it is not easily accessed by all. This hurdle was overcome by recoding the 3D models being manipulated, turned and zoomed in on. This produced two manageable video files which were shared with the community and more widely on social media.



Furthermore, secondary to the technical case study work, with expertise provided by University College Cork, CCGHT worked with the RDCA to find a method to engage the community more widely with the concept and findings of Sustainable Resilient Coasts and the drone survey work as it was understood the technical aspects of the Case Study limited the audience. A digital map which pulled together information on the known natural and built heritage, alongside the case study material was selected and developed in Summer 2022. This map task connected with members of the community who didn't initially engage with the case study. It encouraged community members to nominate and provide information on the heritage they consider valuable. This provides a list for future surveying and modelling, following the 6-step methodology provided by University College Cork and was an important stakeholder engagement exercise.




### Issues and Opportunities Matrix with a focus on peripheral community and protecting natural and built heritage

While the case study was to focus on how to use drones as a method to preserve and protect natural and built heritage it spread much wider than this. Engagement with the community and the RDCA fostered conversation much wider than that topic. It spread across the themes of the Sustainable Resilient Coast project; how coastal communities can be best supported by local authority structures across generations, not just looking to the short term. This topic stretched into community resilience (with the COVID-19 pandemic as the backdrop), thriving environment, economic viability, sustainable energy and identity.

To capture this topic and rationalise it into a productive format the following matrix was developed, with the UN Sustainable Development Goals acting as a thematic unit and Challenges and

Opportunities identified within the theme. Note while all SDGs are relevant to all people and places in this exercise only those most relevant to the topic have been included. For example Zero Hunger was not found to be very relevant.

	Challenges	Opportunities
	Local knowledge of land and sea overlooked. More education of land and sea issues needed across society.	Authorities to regard intangible, qualitative information as important. Rathlin Sound could be NI case study for marine issues and management.
	Small population off mainland, threshold for some infrastructure not met.	Development of on island solutions such as hydrogen power batteries, car charging batteries, wave, wind and solar energy. Further exploration.
	Small community, limited employment options. Reliance on seasonal tourism.	Authorities to create life long employment opportunities including remote working. Raise profile of Rathlin's heritage and features via COAST map.
	Access to island harder than mainland. Short term gain seen over long term consequences. Reactionary decision making.	RDCA and private residents to continue to explore viability of bespoke businesses. Authorities to promote long-term visioning. Authorities to push politicians to reduce knee-jerk decisions and schemes.
	Population number could decline, threatening services. Many plans are 10 year focus only.	Encourage life-long living on Rathlin with housing and employment. Raise profile of Rathlin's heritage and features via COAST map. Authorities to create longer looking plans, generational.
	Boom and bust of some industries; fishing, tourism. High consumption and waste during peak seasons.	Authorities to develop strategy for sound sustainable growth. Authorities to explore circular economy solutions to waste on island.
	Fragile island environment. Climate change impacts along all coastline.	Monitoring of land via 6-step drone surveying approach piloted in Sustainable Resilient Coasts.
	Fragile marine environment. Some rely on sea for livelihood (ferry, seaweed farm, fishing, tourism). Marine management plans under review and short term – 5 years.	Authorities to develop longer term marine plans which forecast work opportunities and introduce work around remediation, upskilling residents.
	Fragile environment. Competing needs of people and nature. Local authority development plans under review and short term – 10 years.	Monitoring of land via 6-step drone surveying approach piloted in Sustainable Resilient Coasts.
	Engagement fatigue within community. Projects, plans and ideas coming at different times. Not always true engagement, echo chambers or focused to get required output. Decision making not always thought of as transparent.	Authorities to engage with RDCA to coordinate engagement, doing it in a meaningful and useful way. Use community newsletters and social media to engage wide demographic rather than one group. Clear feedback and updates following engagement, transparent approaches by authorities.