

MASTS Coastal Zone Forum Funding Report

Project Title: Vulnerability and Adaptation of Coastal Communities in the Scottish Islands to the Impacts of Climate Change

Research Background

The Scottish Islands are peripheral locations that are physically exposed to storms and coastal flooding; the frequency and magnitude of which are likely to be exacerbated under changing climatic conditions. Key questions remain about the motivations and priorities of small island communities for adapting to the impacts of climate change. The research seeks to review and develop theory on the scale of adaptation measures and considers the appropriateness of top down vs. bottom up measures, given the diversity of Scottish island contexts. The research addresses the following questions:

1. What are the key impacts of climate change affecting Scottish island communities?
2. What are the priorities for adapting to climate change in small island communities, specifically in the Scottish Islands?
3. Do the priorities differ across small island communities and, if so, why?
4. What are the implications for future adaptation planning?

Funding Rationale

The collection of empirical qualitative data, in the form of community perspectives and experiences, is a critical component of the research. It was necessary to engage directly with Scottish island communities in order to address the aforementioned research questions whilst considering the utility of top-down and bottom-up approaches in adaptation. Funding was sought to support research costs for fieldwork in three Scottish island case study communities. The grant contributed to fieldwork costs relating to travel, subsistence and accommodation for the researcher as well as limited costs for facilitating community engagement through workshops and focus groups.

Use of MASTS Coastal Zone Forum Funding

Communities in Unst (Shetland), Westray (Orkney) and South Uist (Outer Hebrides) were taken in a multiple-case study approach. Deliberative workshops were undertaken during initial field visits to each case study community between March and June 2015. The principle objective of the deliberative workshops was to establish the key impacts of climate change affecting each case study community. A range of community members participated in each session. Workshops consisted of group discussion and three core interactive exercises that were replicated across the three case study communities in order to facilitate the comparison of results.

Additionally, a series of nine focus groups were used to explore local perspectives on climate change impacts, as well as motivations and priorities for adaptation. Focus groups were carried out during field visits to each case study community during March and April 2016. Drawing on naturally occurring social groups, the focus group approach allowed the reconstruction of community

viewpoints, as opposed to individual perceptions of climate adaptation. The coding of qualitative data from focus groups led to the emergence of key themes relating to community understandings of climate change and adaptation priorities.

Research Outcomes

The findings highlight local motivations behind adaptation priorities within each case study, and show significant variation across all cases, despite the communities being of similar population, demographic profile and island context. The research contributes to the debate on 'one-size-fits-all' adaptation planning. The findings support the argument that a uniform national approach to adaptation is not sufficient where local priorities differ significantly. The research develops a deeper understanding of the interface between community-based action and strategic policy in climate change governance processes. There is scope to apply a similar approach to understand priorities in other small island settings.

Furthermore, the study raises key considerations about the balance of applied and academic research. By taking local motivations and priorities into account during processes of planning and action, future adaptation will have greater practical benefit for the case study communities. Local stakeholders and community members in the case study islands can use the findings as they see fit. Results and findings can be used by local authorities in Shetland, Orkney and the Outer Hebrides to inform adaptation components of future climate change declaration reports. The findings will also be of interest to public organisations such as Adaptation Scotland, SEPA, Scottish Natural Heritage and Marine Scotland.