'Going Digital'
Lessons for future coastal community engagement and climate change adaptation
June 2021

Dr Emma McKinley, Cardiff University

@EmmaJMcKinley   **#MarSocSci #TeamMarSocSci**

Overview

_____

- Introduction to CCAT

- Coastal community engagement and Covid

- Approach

- Our Experience and key findings

- Discussion

The **CCAT** project aims to support coastal communities in understanding climate change and how they can adapt to these changes

Coastal Communities Adapting Together (CCAT)

Developing and testing tools and resources that can help coastal communities make sense of climate change and find new ways to adapt together.

€1.29 million

EU Funds:
Investing in Ireland and Wales

Cymunedau Arfordirol yn Ymaddasu Ynghyd (CCAT)

Yn datblygu a phrofi teclynnau ac adnoddau i helpu cymunedau arfordirol i ddeall newid hinsawdd a chreu ffyrdd newydd i ymaddasu gyda'i gilydd.

€1.29 million

Cronfeydd yr UE:
Yn Buddsoddi yn Iwerddon a Chymru

University College Dublin, University College Cork, Cardiff University, Fingal County Council, Pembrokeshire Coastal Forum, Port of Milford Haven,

The Irish Sea and its coastal communities are directly impacted by climate change.
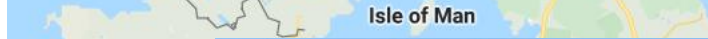
The CCAT operation aims to respond by helping to

- build resilience (adaptive capacity to change),
- facilitate marine and climate citizenship, and
- realise the potential of the Irish Sea region

By **(re)connecting coastal communities** with

- their place,
- their dynamic coastal systems and
- our changing climate.

Milford Haven and Pembroke Dock and Portrane

Isle of Man

Ireland

'Going digital' - Lessons for future coastal community engagement and climate change adaptation

E. McKinley [a,*], P.R. Crowe [b,c], F. Stori [d], R. Ballinger [a], T.C. Brew [e], L. Blacklaw-Jones [f], A. Cameron-Smith [e], S. Crowley [g], C. Cocco [b], C. O'Mahony [d], B. McNally [b], P. Power [b], K. Foley [b]

[a] School of Earth and Environment, Cardiff University, Park Place, Cardiff, CF10 3AT, UK
[b] School of Architecture, Planning and Environmental Policy, University College Dublin, Belfield, Dublin 4, Ireland
[c] School of Civil Engineering, University College Dublin, Belfield, Dublin 4, Ireland
[d] MaREI, the SFI Research Centre for Energy, Climate and Marine, Environmental Research Institute, University College Cork, Ireland
[e] Port of Milford Haven, Gorsewood Drive, Hakin, Milford Haven, Pembrokeshire, SA73 3EP, UK
[f] Pembrokeshire Coastal Forum, 2nd Floor, Pier House, Pembroke Dock, Pembrokeshire, SA72 6T, UK
[g] Fingal County Council, County Dublin, Ireland

ARTICLE INFO

ABSTRACT

Recent decades have witnessed a steady increase in efforts from a range of actors to facilitate and support meaningful and effective engagement with coastal communities and stakeholders. Indeed, this move towards improved participatory approaches are increasingly framed as being integral to successful and sustainable management of coastal resources and spaces, including in the context of climate adaptation The effectiveness of the processes, structures and frameworks underpinning coastal community engagement has always been subject to external and internal drivers; however, the global threat posed by COVID-19 presented, and continues to present, an unexpected shift in approach, and the need for rapid adaptation by those of us working within these spheres. Using the Coastal Communities Adapting Together (CCAT) project as a case study, we explore how engagement with coastal communities and stakeholders in the project areas of Fingal, Ireland, and Pembrokeshire, Wales, has been impacted and forced to adapt as a result of COVID-19. Through a qualitative data collection process, we explore how project teams across different scales have rapidly adapted their models of community and stakeholder engagement, identify successes and failures, and explore challenges that have been faced. Finally, we consider if the legacy of COVID-19 has provided an opportunity for coastal community engagement approaches being used across the globe to become more diverse, adapting to new technologies and increasing accessibility and effectiveness. Insights identified as fundamental to successful adaptation and enhancing resilience include: a rapid response to change, adoption of a diversity of techniques, broadened participation and supported social learning and knowledge exchange.

1. Introduction and context

Engaging citizens and communities is considered a core element of coastal management processes (Ellsworth et al., 1997). The advent of more integrated approaches to coastal management (i.e. integrated coastal zone management/integrated coastal management [ICZM/ICM]), particularly from the 1990s onwards resulted in multi-actor involvement and stakeholder engagement becoming common features in coastal management initiatives; to such an extent that *"the involvement of all parties"* was codified as a principle of good practice (Ballinger et al., 2010). Within Europe, the European Commission advocates the principle of subsidiarity whereby governments are urged to support the empowerment of local communities, including local government, to secure local sustainability of the coastal environment. Responding to growing calls for enhanced public participation (see for example, McKinley and Fletcher, 2012), coastal management processes in many European countries have typically adopted a "bottom-up" approach whereby local communities have engaged with other stakeholders to co-design and co-implement management of coastal areas and resources (O'Hagan and Ballinger, 2009; McKenna and Cooper, 2006). In the UK, this was perhaps best demonstrated by the roll-out of various coastal fora which operate partnership models to address the challenges of:

---

* Corresponding author.
E-mail address: mckinleye1@cardiff.ac.uk (E. McKinley).

Underlying Assumptions

- Community engagement in coastal management is not new – see ICZM (Ellsworth et al., 1997; Ballinger et al., 2010)

- Growing calls for better, more meaningful engagement and roles for diverse voices and actors to be included in decision making (McKinley et al., 2012; 2020; Jefferson et al., 2015; Pelling, 2003)

- Need to diversify the community engagement toolbox – taking place-based approaches, reconnecting communities to their coastal spaces in the face of climate change.

- Evidenced through the aspirations of the SDGs

- Participatory community engagement is a cornerstone of CCAT activities

UK coronavirus: Boris Johnson announces strict lockdown across country – as it happened

PM says people can only shop for basic necessities, limits exercise to form a day, restricts travel only to and from essential work and tells stay at home

- Coronavirus - global live updates
- Boris Johnson orders UK lockdown to be enforced by police
- UK lockdown: what are the new coronavirus restrictions?
- Boris Johnson's address to the nation in full
- How UK coronavirus lockdown compares with other countries
- See all our coronavirus coverage

6:16

▲ Boris Johnson announces coronavirus lockdown – video

Health Secretary gives update on new 'lockdown' measures announced to tackle coronavirus

24 March 2020

Coronavirus: Republic of Ireland to close schools and colleges

🕒 12 March 2020 | 💬 Comments

Coronavirus pandemic

'Stay home': Varadkar announces sweeping two-week lockdown

Irish taoiseach says new measures aimed at 'saving as many people's lives as possible'

▲ Taoiseach Leo Varadkar at the coronavirus press briefing where he announced a two-week curb on social life. Photograph: Sasko Lazarov/RollingNews.ie/PA

The Irish government has announced sweeping restrictions that will put Ireland in a de facto lockdown to try to slow the spread of coronavirus.
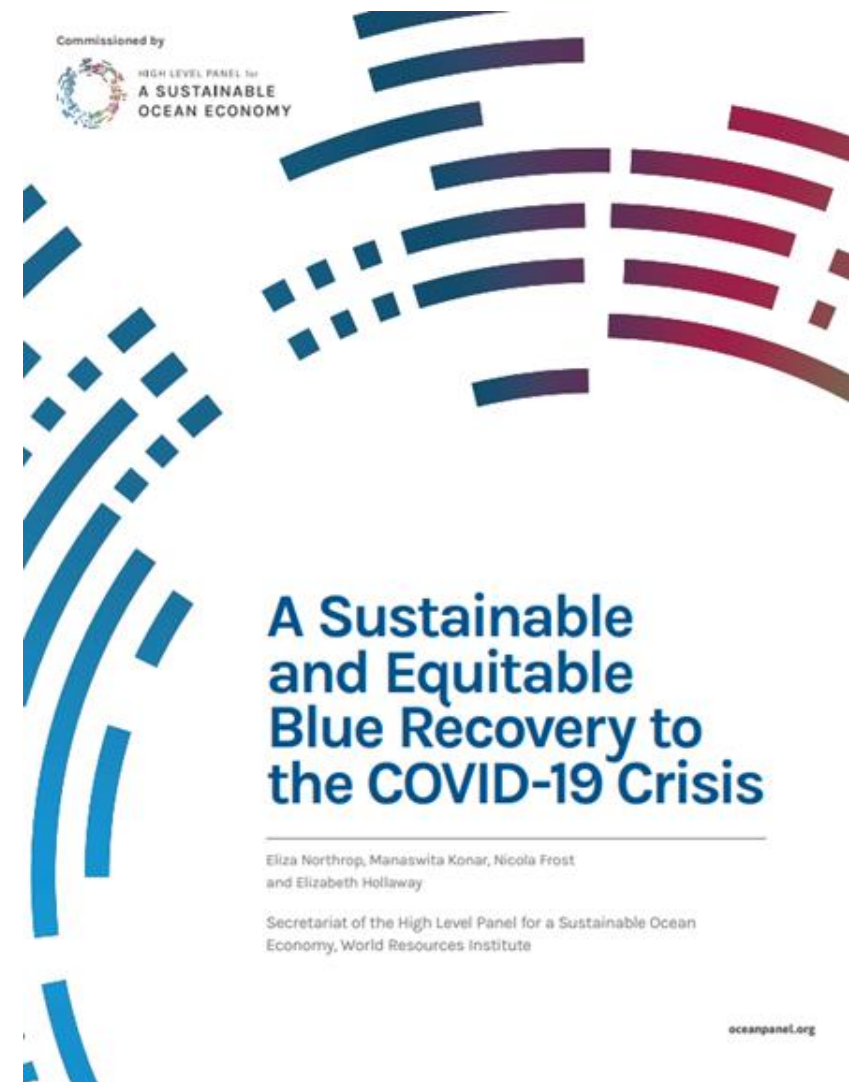
The taoiseach, Leo Varadkar, said on Friday evening that from midnight people should stay at home for two weeks, until 12 April, in a significant tightening of curbs on social and commercial life.
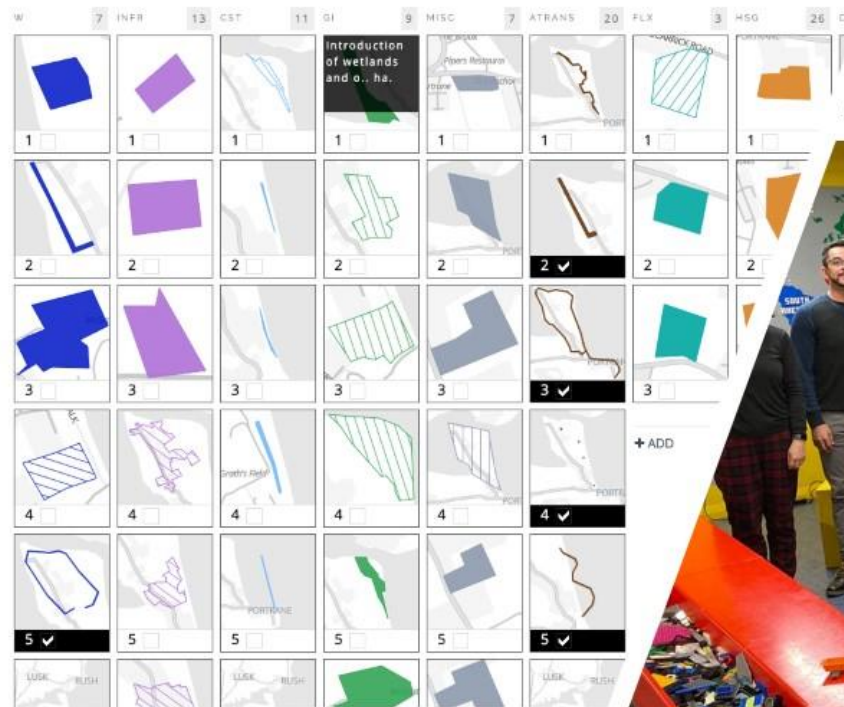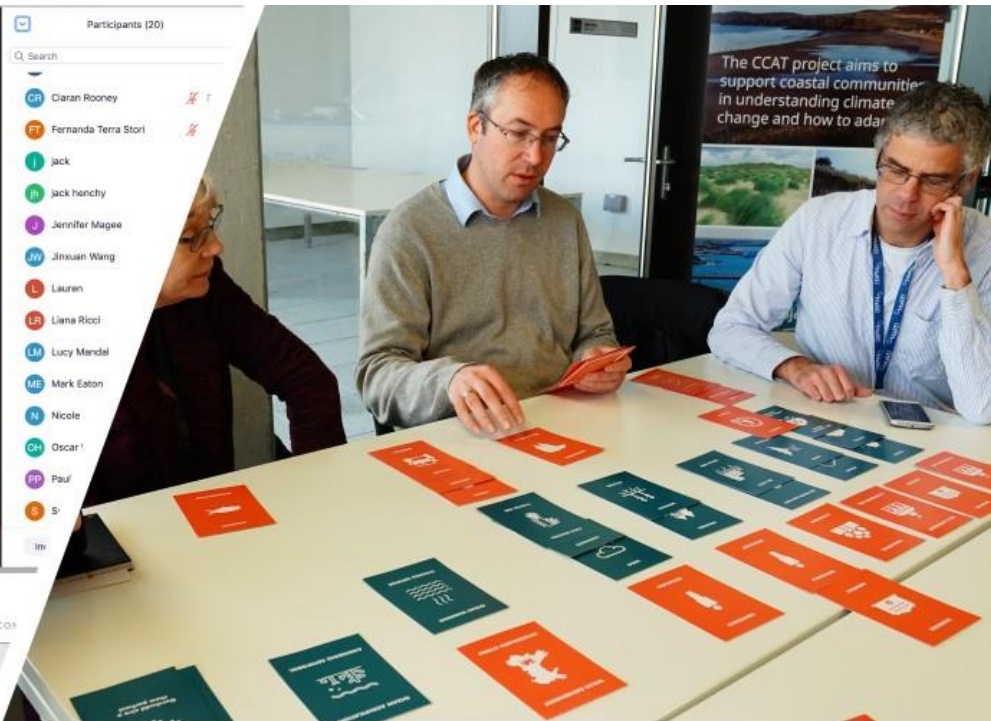
People will be allowed to leave home to shop for food and exercise briefly within 2km of their homes, he said in a televised address from Government Buildings in Dublin.

"The COVID-19 pandemic has had severe ramifications worldwide, and the ocean economy is no exception...As with many crises, it is the most vulnerable groups, such as coastal communities and informal workers, that are hardest hit....

The ocean economy may be a victim of the impacts of the COVID-19 crisis, but it also holds solutions for rebuilding a more resilient, sustainable and equitable post-COVID world.

Investment in 'blue' recovery and stimulus packages, along with policy reform, can immediately create jobs and provide short-term economic relief, all while fostering long-term economic growth, resiliency and social and environmental benefits."

Commissioned by
HIGH LEVEL PANEL for
A SUSTAINABLE
OCEAN ECONOMY

A Sustainable
and Equitable
Blue Recovery to
the COVID-19 Crisis

Eliza Northrop, Manaswita Konar, Nicola Frost
and Elizabeth Hollaway

Secretariat of the High Level Panel for a Sustainable Ocean
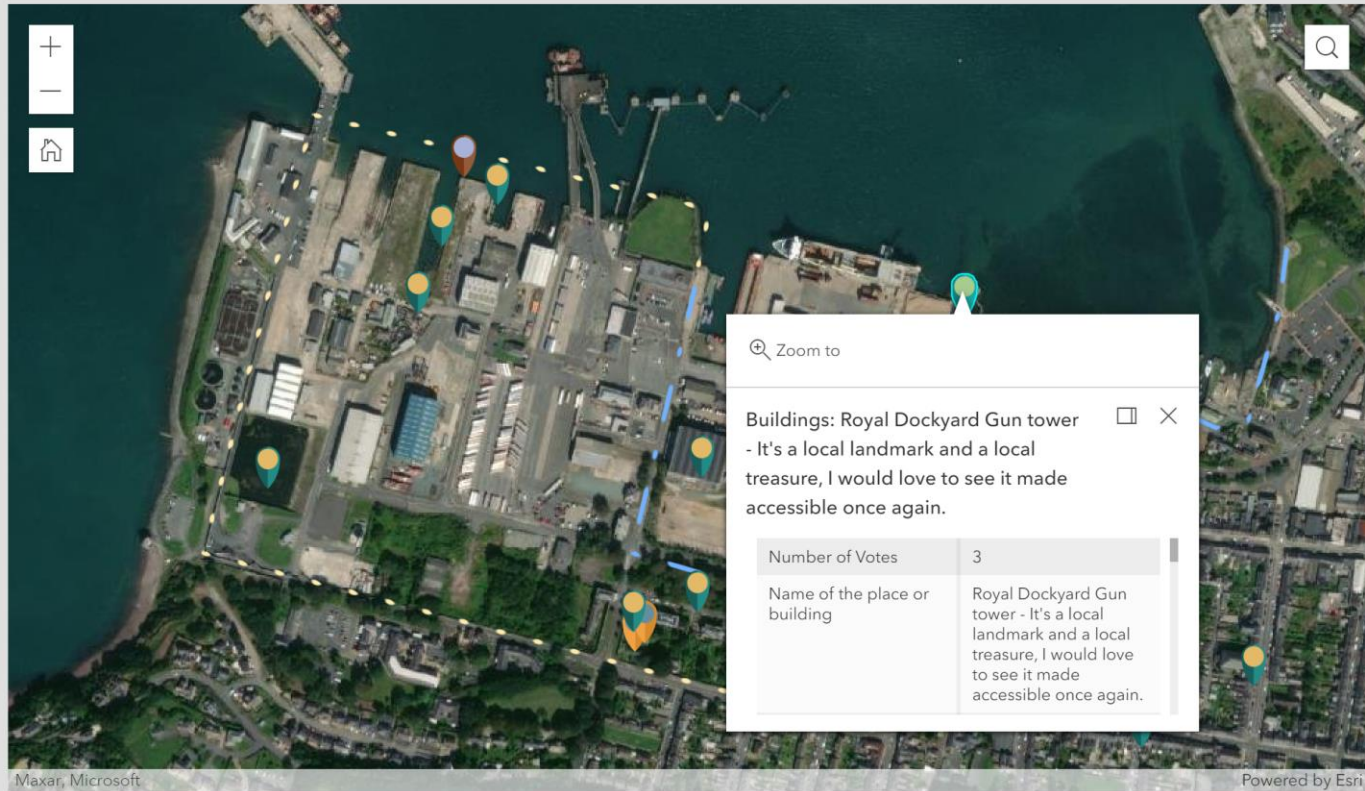Economy, World Resources Institute

oceanpanel.org

What features would you like to be celebrated in the trail?

TAKE PART IN OUR MAPPING PROJECT!

Built Structures

Images

Artefacts

Other

Port wall

Historic trail

Zoom to

Buildings: Royal Dockyard Gun tower - It's a local landmark and a local treasure, I would love to see it made accessible once again.

Number of Votes	3
Name of the place or building	Royal Dockyard Gun tower - It's a local landmark and a local treasure, I would love to see it made accessible once again.

Maxar, Microsoft

Powered by Esri

Our Questions

- What have the opportunities and challenges been for maintaining and continuing effective and meaningful community engagement in response to COVID-19?

- What do these experiences mean for community engagement in the future?

- How has this adaptation process contributed to the development of innovative social engagement methodologies to support adaptive capacity and resilience for coastal communities in the future?

Reflective case studies

Managing a coastal community consultation on coastal defences

Engaging students with systems thinking using Geodesign

Climate change card game

Creation of an Augmented Reality Heritage App

Table 1
Summary of CCAT case study activities and their adaptation to COVID-19.

Partner	Activity	Location	Type of community engagement activity	Target Audience	Pre-COVID approach	Adapted approach	Selection of key observations
Local Authority (FCC)[a]	Managing a community consultation on coastal defences	Fingal, Ireland	Public consultation event	Residents and local community members	An in-person information session to share: i) recommendations from a specially commissioned report on the available options for mitigating coastal erosion for the Portrane area and ii) the rationale for the preferred coastal defence option identified by consultants.	Initial consultation was delayed by 6 months, and moved to an online consultation platform, including use of a digital consultation room to provide attendees with access to required information, as well as utilizing other online meeting platforms, such as Microsoft Teams.	- Lack of public experience with digital platforms. - Fewer people attended the online consultation than have attended in-person events the past. - Limited opportunity for organic discussion among local community participants. - Still requests for in-person meetings, with the feeling that online meetings being too impersonal for dealing with emotive issue. - Online format facilitates flexibility for participants to engage over multiple sessions and times at their convenience. - Information relating to the event is consistently available.
3rd level (UCD)[a]	Engaging students with systems thinking using Geodesign	Fingal, Ireland	Pilot study to support further public engagement events using Geodesign techniques	University students	Initially planned as an in-person Geodesign event, with each group of participants using a laptop to enter their proposals.	The planned multi-session workshop was transferred online. A company called GeoDesign Hub was engaged to provide the software and support for the workshop.	- Due to the digital nature of the workshops, this activity was relatively easy to transfer to an online format, although there were both challenges and benefits. Additional facilitation expertise was required to support student engagement. - Online workshops required more preparation and planning. - Access to high quality broadband service varied. - Increased opportunity for disengagement from students in an online format e.g. not completing tasks or not engaging in activities/discussions. - There was a loss of understanding of the environment being discussed as a result of not being able to visit the site e.g. loss of enhanced perception such as sound, smell, touch, visuals. - Increased accessibility. - Reduced carbon footprint of event due to lack of travel and venue hire.
Coastal Forum (PCF)[a]	Climate change game	Pembrokeshire, Wales	Interactive card game to raise awareness and stimulate	Local community members, residents, local	An hour-long climate change themed workshop using a card-based tool taking	Only one in-person event was run before COVID-19 restrictions were	- Online approach is more resource intensive, requiring multiple

(continued on next page)

Going Digital: The challenges?

- Digital literacy
  - Highlighted by all 4 projects as a challenge
  - Increased exclusion of older community members - and those who poor broadband connectivity (particularly an issue in rural, coastal communities)
  - Challenge of technology glitches!

"many of the residents we are hoping to reach are traditionally harder to reach in this format"

- Restricted engagement
  - limitations of online platforms, stifling natural conversation

"body language is missing online"

Going Digital The challenges?

- Resource Intensive
  - Different way of working for many
  - Required more planning and trouble shooting
  - Additional staff resources required to support interactive sessions – facilitation guides

"The main challenge [was] that converting the workshops to an online format initially required more staff time and resource" (PCF)

"more preparation time was needed to set up and manage the multi-session online workshop" (UCD)

Opportunities – A snap shot!

- Improved access and opportunities to engage
  - Evidence of increased attendance (POMH)
  - Easier management of some of the pitfalls of in person engagement events (e.g loudest voice first!)
  - A feeling of more tailored approaches (PCF case study) and real time peer-peer learning

    "hosting the workshop online [provided] more opportunity for more people from local communities to attend...from the comfort of their own home"

- Building capacity and transferable skills for CCAT team *and* participants
  - Diversified community engagement skills

    "expanded our expertise and allowed us to become more flexible with how we deliver our [activities]".

Opportunities – A snap shot!

- Lowering costs of community engagement
  - A real challenge for many organisations – lower costs are a win!

  "once staff time has been accounted for, the actual cost of running the workshops online is negligible as we do not have travel costs and we don't have to rent a room…to run the workshop in…we have secured a Mural account for educators, which is free of charge for a year".

- Reduced carbon footprint
  - Largely due to COVID-19 restrictions on travel and gatherings.
  - Inline with the CCAT Eco-code
  - *but* important to recognise the carbon cost of digital and online working – what are the trade offs?

Conclusions

Covid-19 has shown adaptation can be rapid, fast tracked and effective!

Community engagement remains *fundamental* to climate adaptation and resilience discourse

Innovation and technology can be part of the solution supporting participation.

Digital can increase accessibility *but* it can also disengage

No one size fits all – we need to be aware of unintended negatives!

Future of CCAT

- Ongoing work to explore the use of digital communication technologies

- Learning lessons from our own adaptation and identifying solutions to support participatory engagement in climate change issues for local communities.

- Developing a framework of climate citizenship

- Considering legacy funding and future collaborations

Thank you!

Any questions/ thoughts/ comments?

References

R. Ballinger, A. Pickaver, G. Lymbery, M. Ferreria. 2010. An evaluation of the implementation of the European ICZM principles. Ocean & Coastal Management 53:12 738-749, https://doi.org/10.1016/j.ocecoaman.2010.10.013

Ellsworth et al. 1997 Canada's Atlantic Coastal Action Program: A community-based approach to collective governance. Ocean & Coastal Management. 36: 1–3 https://doi.org/10.1016/S0964-5691(97)00044-6

McKinley, E et al. (2021) 'Going Digital' - Lessons for future coastal community engagement and climate change adaptation. Ocean and Coastal Management.

McKinley, E., Acott, T., G., and Yates, K., L. (2020) Marine Social Sciences: Looking towards a sustainable future. Environmental Science and Policy. 108: 85-92 https://doi.org/10.1016/j.envsci.2020.03.015

Jefferson, R., McKinley, E., Capstick, S., Fletcher, S., Griffin, H., and Milanese, M. (2015) Understanding audiences: making public perceptions research matter to marine conservation. Ocean and Coastal Management 115: 61-70