



# Marine Evidence Synthesis: Building Capacity in Wales's Coastal Communities

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## Marine Evidence Synthesis

### Contents

|   |    |
|---|----|
| Executive Summary .....   | 3  |
| 1. Introduction .....   | 8  |
| 2. Approach .....   | 9  |
| 3. Coastal community capacity building: Evidence synthesis .....  | 9  |
| 3.1. How can coastal community capacity development be best supported through community level facilitation and engagement activities? How can barriers and exclusions be tackled to ensure equal opportunities to develop these capacities? ..... | 13 |
| 3.1.1. Co-development and community engagement.....   | 13 |
| 3.1.2. Enhancing Ocean literacy in Wales.....   | 20 |
| 3.1.3. Diversification for sustainable coastal communities .....  | 22 |
| 3.1.4. Key findings .....   | 30 |
| 3.2. What evidence is there on existing infrastructure and capacity, within Wales, to support communities to achieve the desired outcomes and capacities? What needs/limitations and best practice can be observed? .....                         | 31 |
| 3.2.1. Coastal community capacity building and partnership working.....   | 31 |
| 3.2.2. Projects, initiatives and funding.....   | 39 |
| 3.2.4 Key findings .....  | 41 |
| 3.3. What capacity building methods most effectively support collaboration and consideration of varying priorities and how can these be used to reduce conflict and support cooperation between coastal stakeholders across Wales? .....          | 41 |
| 3.3.2. Key findings .....   | 45 |
| 4. Summary of key findings and points for the future .....  | 46 |
| References .....  | 49 |

### Executive Summary

In support of Welsh Government's commitment to sustainable growth and nature recovery (detailed below in Table 1), this work undertook an evidence synthesis on coastal community capacity building which has been identified as a key priority for Welsh coasts and seas through the Wales Coast and Seas Partnership (W-CaSP). The need to build capacity within coastal communities on topics relating to Wales's coasts and seas has been recognised by Welsh Government and W-CaSP as a key component of the broader Blue Recovery programme of work. This programme of work has arisen in response to the various challenges facing coastal communities across Wales in recent years – the UK's Exit from the EU, the impact of the Covid-19 restrictions, and the ongoing impacts of the climate and nature emergencies, which have resulted in increasing unpredictability and vulnerability for many, particularly smaller coastal businesses. As efforts to enhance capacity within communities continue, it is therefore important that capacity building initiatives support sustainable growth and diversification within businesses, build skills development and training to attract new entrants to maritime sectors, and promote and support existing Welsh coastal businesses. Building capacity is key to enabling coastal communities, practitioners, and all relevant partners to develop effective and collaborative partnerships which deliver benefits for both the marine environment and the communities that depend on it.

The work was funded through the Environmental Evidence Programme, which undertakes strategic, innovative and collaborative projects in support of Welsh Government policy development. This report presents an evidence synthesis of existing literature and best practice relating to coastal community capacity building, drawing insight and guidance from projects on a range of topics, as well as exploring methodologies for engaging with coastal communities in different contexts. With a specific focus on the two core objectives of supporting Sustainable Growth in coastal communities and Nature Recovery, the report seeks to address three key areas of questioning:

- I. How can coastal community capacity development be best supported through community level facilitation and engagement activities? How can barriers and exclusions be tackled to ensure equal opportunities to develop these capacities?
- II. What evidence is there on existing infrastructure and capacity, within Wales, to support communities to achieve the desired outcomes and capacities? What needs/limitations and best practice can be observed?
- III. What methods most effectively support collaboration and consideration of varying priorities? How can these be used to reduce conflict and support cooperation between coastal stakeholders across Wales?

Through a rapid literature review process, topics relating to coastal community capacity building were explored, bringing together evidence on: the importance of co-development and community engagement; the role of ocean literacy; the current and future role of existing partnership structures; the potential for collaborative working to facilitate the formation of maritime clusters across Wales to support both sustainable economic growth and nature recovery; and the challenges of funding. Case study examples of existing work on these topics are presented in the full report (published separately) highlighting examples of where things have worked well and where lessons could be learned and applied in Wales.

There are a number of barriers impacting coastal communities' capacity to be engaged in marine and coastal issues, including, but not limited to, a lack of long-term funding for projects; poor communication and a feeling of not being listened to; a lack of legacy or follow up activity following project completion; or even, very simply, people within coastal communities not feeling that they have a knowledge or capacity to have a role to play in marine and coastal issues.

## Marine Evidence Synthesis

Findings show that given the complexity of coastal issues and the broad range of coastal users and stakeholders who need to be considered, it is to be expected that there may be some level of conflict and a need to discuss trade-offs regarding marine and coastal space and resources. Table 2, below, presents a summary of some of the methods employed in the literature to address conflict and foster collaboration between multiple stakeholders. Coastal communities across Wales are not homogenous. While there may be similarities and typologies which can be identified, each community will have its own specific characteristics and needs, meaning that there will be no one approach that will work for every community – therefore, approaches used will need to be community led and respond to community needs and priorities. Further details on these methodologies are provided within the full report.

| <b>Potential methodologies for conflict resolution and community engagement</b> |
|---|
| Appreciative inquiry  |
| Asset based community development   |
| Participatory mapping   |
| Community Voice Method  |
| Deliberative workshops  |
| Facilitated focus groups and meetings   |
| Scenario development  |
| Stakeholder mapping and Stakeholder Network Analysis                            |
| Community consultations   |
| Open community events and activities  |

Table 2: A summary of key methods to address conflict and foster collaboration within communities.

## FUTURE CONSIDERATIONS

Overall, this review reveals a number of key points, from the existing literature, which should be considered for future work on building coastal community capacity in Wales, which are presented below. These are not necessarily discussed in any order of priority; however, they should all be taken into consideration in planning of future initiatives.

### Coastal Community Development and Enhancing Ocean Literacy

- For coastal community capacity building initiatives to be successful, **there is a need to understand and map Wales's coastal communities** so that previously under-represented voices, and values, can be considered in the issues facing Wales's coasts and seas.
- Building capacity and fostering community engagement is resource and time intensive – **future funding should be allocated to building relationships and trust** between stakeholders.
- There are opportunities to **align coastal community capacity building initiatives with the ongoing work to develop and enhance ocean literacy across Wales**. Evidence from the Defra, NRW and Marine Scotland ocean literacy survey indicates that concern for the marine environment is high across Wales. However, more analysis of the data is needed to explore

## Marine Evidence Synthesis

how views and perceptions vary with region and other demographic characteristics (e.g. age, gender, ethnicity, education level) and to consider how this can be used to provide insight into where capacity building is most needed.

## Working in Partnership

- To deliver the twin goals of Nature Recovery and Sustainable Growth, **working in collaboration, identifying opportunities for partnership and developing place-based visions and solutions** for the issues facing coastal communities across Wales will be crucial. No one organisation can achieve these goals alone, and mobilising action that is adapted to the needs of communities in place requires careful collaboration with the people affected.
- Wales has an active network of organisations and groups involved in topics relating to its marine and coastal environment. While the funding and project portfolio, and longevity, of some of these groups, including the two Coastal Partnerships in Wales, is an indicator of success, there is little published evidence as to the impact and effectiveness of these groups. **There is a need for robust evaluation of existing processes and structures**, such as the Coastal Partnerships or the Local Nature Partnerships, to better understand the impact of these groups for both Sustainable Growth and Nature Recovery, and to identify where things have worked well and where improvements could be made for future coastal community capacity building. There are also lessons to be learned from existing or previous funding frameworks, such as the FLAGs i.e. adopting a place-based multi-stakeholder approach, to ensure that place specific issues can be addressed by a consortia with local knowledge and expertise, while the multi-stakeholder partnership ensures multiple voices and perspectives are included.
- While the 2016 Coastal Directory produced by Severn Estuary Partnership, Pembrokeshire Coastal Forum and Cardiff University is a useful resource – it is out of date. **Mapping of Wales's coastal communities and stakeholders should be carried out to understand whose voices, perspectives and ideas are currently being included and whose are missing from the discussion.** This would help to ensure inclusive representation of all relevant stakeholders and communities, and also help to identify where capacity building initiatives are required to build and facilitate that representation and engagement. There is a clear need for an improved understanding of who Wales's coastal communities and stakeholders are, taking in the breadth and diversity of Wales's coastal regions, and recognising that this may and should include stakeholders and communities who are not directly positioned in a coastal area but nevertheless impact the coastal area and its environment. By adopting a catchment-to-coast approach to mapping stakeholders, a more comprehensive understanding of what is already happening, where success has been achieved and where lessons can be learned can be developed. With this in mind, it is suggested that the **Coastal Directory be updated as a first step of in building coastal capacity.** This will ensure that there is a better understanding of who is or isn't represented currently, whose voices are missing or have historically been marginalised and what specific capacity building initiatives are needed in these communities to address these gaps.

## Diversification for Sustainable Coastal Communities

- The resilience of coastal communities and economies is under increasing pressure from a changing legislative landscape, increased costs, changes to market access and a lack of new entrants into maritime industries (e.g. fishing and marine renewable energy). With a view

## Marine Evidence Synthesis

to fostering Sustainable Growth, **maritime clusters may provide a platform for collaboration between and across sectors**, allowing members to take advantage of cooperative approaches to training, skills development, and new market opportunities. Successful examples already exist in Wales, including Marine Energy Wales and the Wales Seafood Cluster. Future community capacity building should explore other opportunities to develop maritime clusters and networks as a way of fostering collaboration and sustainable economic growth across supply chains and delivering value within coastal communities.

- In order to maximise the benefit of forming maritime clusters, **future funding should provide options for projects relating to a range of areas of Research and Development**, including capital investment for infrastructure and equipment, funding to support training, as well as funding to finance people's time to invest and develop a cluster so that it can achieve success.

## Future funding

- **Future funding for coastal community capacity building should support continuity and legacy of projects to ensure the anticipated outcomes of funded projects are achieved and not limited by the challenges of short-term funding programmes.** The practicalities of delivering long-term funding are challenging and mean that this may not always be possible. However, long-term funding structures are the ideal scenario and should be aimed for. Even within existing short-term funding programmes, continuity, legacy, longer term planning and capacity building can be supported through future funds being open to a wider range of eligible activities. This could include funding of relationship and stakeholder mapping or network analysis to support projects to get off the ground (through seed funding initiatives, for example). Funding to support continuation of activities and legacy work is also important, to provide improved continuity and maximise the impact of projects and collaborations, rather than see these come to an end when project funding has run out, which can mean a lack of resource to support staff funding or ongoing activities within coastal communities. Overall, the funding portfolio available must support projects of varying scales, and, where possible, there should be a long-term funding mechanism or in the very least long-term planning to ensure capacity building programmes can respond and adapt to changing needs within communities.

## Capacity Building Methods and Approaches to Collaboration

- **Being inclusive and creating a sense of collective engagement with marine and coastal issues facing communities is key.** Adopting methods of capacity building which actively engage all stakeholders in coastal communities, including those who have perhaps become disengaged or been marginalised in these discussions, and which encourage identification of potential areas of conflict and support collaborative working is required. Participatory methods, such as participatory mapping, community voice methods, asset-based inquiry and other methods which seek to identify community strengths, support conflict resolution and foster collaboration are key.
- There is **no one size fits all and there is a need to ensure that capacity building projects respond to community needs and can be developed in ways that build trust and social capital and foster new collaborations** between traditionally siloed sectors and topics, therefore better enabling integration and alignment of the twin goals of Nature Recovery and Sustainable Growth.

## **Marine Evidence Synthesis**

- **Capacity building methods and approaches should be monitored and evaluated** to demonstrate their impact and effectiveness on conflict resolution and collaboration within communities to provide a wider evidence base for shared learning across Wales.

### 1. Introduction

To support of Welsh Government’s commitment to sustainable growth and nature recovery (detailed below in Table 1), the need for an evidence synthesis on coastal community capacity building was identified responding to priorities set by the Wales Coast and Seas Partnership (W-CaSP)<sup>1</sup>. Over recent years, W-CaSP, formerly the Wales Marine Action and Advisory Group, have developed a programme of work to respond to multiple drivers of change impacting both sustainable development and management of Wales’s marine and coastal environments and resources. The drivers considered under this ‘Blue Recovery’ programme of work included the UK’s Exit from the EU following the 2016 referendum and associated changes in legislation, governance and funding, which may impact Wales (e.g. the loss of the European Marine and Fisheries Fund (EMFF)); the ongoing impacts following the Covid-19 pandemic and associated restrictions; and the impacts of climate change and habitat and biodiversity loss occurring within Wales’s marine and coastal environments. Through a series of prioritisation exercises and expert workshops, W-CaSP identified three priority areas to take forward – this includes the need to build coastal community capacity, in addition to the two other priorities of ocean literacy and sustainable finance.

Table 1: Summary of the key priorities for Welsh Government relating to the twin objectives of Sustainable Growth and Nature Recovery.

| <b>Sustainable growth</b>  | <b>Nature recovery</b>  |
|--|---|
| <ul style="list-style-type: none"><li>• sustainable aquaculture</li></ul>            | <ul style="list-style-type: none"><li>• tackling climate and nature emergencies</li></ul> |
| <ul style="list-style-type: none"><li>• local seafood supply-chains</li></ul>        | <ul style="list-style-type: none"><li>• managing the marine environment</li></ul>         |
| <ul style="list-style-type: none"><li>• tourism &amp; recreation</li></ul>           | <ul style="list-style-type: none"><li>• blue carbon</li></ul>                             |
| <ul style="list-style-type: none"><li>• delivery of ‘Fisheries Objectives’</li></ul> | <ul style="list-style-type: none"><li>• public understanding of marine issues</li></ul>   |

This work was funded through the Environmental Evidence Programme, which undertakes strategic, innovative and collaborative projects in support of Welsh Government policy development. This report presents an evidence synthesis of existing literature relating to coastal community capacity building, drawing insight and guidance on a range of topics including blue economy, coastal tourism, ocean literacy, maritime industries and related diversification across the supply chain, as well as exploring tried and tested methodologies for engaging with coastal communities in different contexts. With a specific focus on two core objectives of supporting sustainable growth in coastal communities and nature recovery, the report seeks to address three key areas of questioning:

- I. How can coastal community capacity development be best supported through community level facilitation and engagement activities? How can barriers and exclusions be tackled to ensure equal opportunities to develop these capacities?
- II. What evidence is there on existing infrastructure and capacity, within Wales, to support communities to achieve the desired outcomes and capacities (listed above)? What needs/limitations and best practice can be observed?
- III. What methods most effectively support collaboration and consideration of varying priorities? How can these be used to reduce conflict and support cooperation between coastal stakeholders across Wales?

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<sup>1</sup> The Wales Coast and Seas Partnership is a collaborative group of strategic interest groups who provide support and advice to Welsh Government on strategic marine and coastal policy.

### 2. Approach

Using a rapid literature review assessment, this report presents an overview of existing evidence on building capacity within coastal communities across Wales. Given the potential for multiple definitions and interpretations of both 'capacity building' and 'coastal communities', the search string was developed in collaboration with the project steering group. While there are multiple definitions of 'community', including geographical communities or communities of place, communities of practice, communities of issues/ topics and more (Craig, 2007), this evidence review focused on literature relating to communities of place or geographical communities. Capacity building was considered to relate to anything to do with the development of skills and capacity of coastal communities to ensure they are better able to identify and help meet their needs and to participate more fully in marine and coastal issues<sup>2</sup>. This ensured that the breadth of terms relating to capacity building were captured, and also framed the search around 'communities of place' building on the place-based approach taken through Wales's National Marine Plan<sup>3</sup>, the Welsh Marine Area Statement<sup>4</sup> and key legislation, including the Well-being of Future Generations (Wales) Act (2015)<sup>5</sup> and the Environment (Wales) Act (2016)<sup>6</sup>.

Using Google Scholar and Scopus as the primary databases, the following search string was used to identify relevant literature:

'Community conservation' or 'community marine conservation' 'marine governance' or 'community marine governance' or 'marine local knowledge' or 'marine partnerships' or 'or 'landscape partnerships' or 'Community engagement' or 'community participation' or 'coastal community capacity building' or 'social capital' or 'coastal partnerships' or 'fishers collaboration' or 'fisheries co-management' or 'fishers knowledge' or 'blue economy' or 'coastal tourism' or 'blue justice' or 'sustainability' or 'blue growth'

Additional literature and key relevant papers were included in the review as identified by the author and project steering group. The report is not meant to be an exhaustive or a systematic literature review; rather it provides a rapid assessment of the current thinking regarding coastal community capacity building, identifies lessons learned where possible, and supports the identification of future priorities for Welsh Government and other marine and coastal stakeholders across Wales in relation to coastal community capacity building.

### 3. Coastal community capacity building: Evidence synthesis

Recent years have seen increasing calls for integrated planning and management of coastal areas, alongside demands for improved engagement with coastal communities in these processes (McKinley et al., 2020; Bennett, 2019a). In Wales, over 60% of the population lives within 50 miles of the coast (NRW, 2022), emphasising the importance of coastal areas at a national, regional, and local scale. From a legislative and policy perspective, Wales has a legal mandate to work better with communities, set out by the Five Ways of Working and the seven well-being goals outlined in the Well-being of Future Generations (Wales) Act 2015. In addition, recent years have seen Wales

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<sup>2</sup> Adapted from the definition put forward by the UK Charity Commission in 2000. Charity Commission (2000) The Promotion of Community Capacity-building. Taunton: Charity Commission. [www.charity-commission.gov.uk/publications/rr5.asp]

<sup>3</sup> [Welsh National Marine Plan | GOV.WALES](#)

<sup>4</sup> [Natural Resources Wales / Marine Area Statement](#)

<sup>5</sup> [The Well-being of Future Generations | GOV.WALES](#)

<sup>6</sup> [Environment \(Wales\) Act 2016 \(legislation.gov.uk\)](#)

## Marine Evidence Synthesis

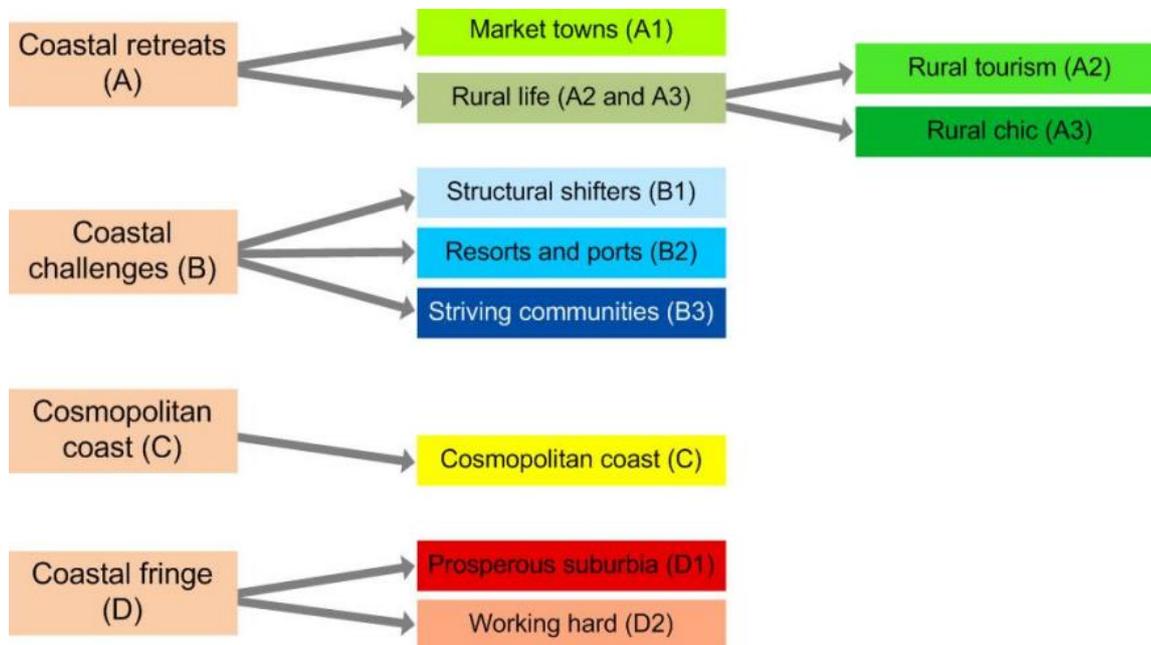
continue to lead in the implementation of innovative policy, including the development of seven Area Statements set out in the Environment (Wales) Act 2016. This suite of structures and documents are aimed at developing a more integrated and joined up approach to addressing environmental and societal issues across Wales, including relating to Wales's marine and coastal environment and resources, with a specific Marine Area Statement among the seven area statements. This area-based approach and call for improved integration to address marine issues has been further underpinned in recent years, not least through the Wales's National Marine Plan, published in late 2019, and finally through W-CaSP's programme of work including the work on Blue Recovery outlined previously.

Under-representation of coastal communities and user groups has increasingly been acknowledged as a fundamental issue within global ocean and coastal governance and decision-making (Gilek et al., 2021; Slater et al., 2020; Mckinley et al., 2019; Gopnik et al, 2012). This can result in a lack of trust and a sense of disenfranchisement among stakeholders and communities. There are a number of drivers which have resulted in this lack of engagement with some coastal communities, including, but not limited to, a lack of long-term funding for projects, which can result in a lack of willingness within some coastal communities to engage with projects or a breakdown in trust or relationships between communities and decision-makers; communication gaps between stakeholders, including between communities and decision-makers, meaning that decisions are not properly communicated or understood by different audiences. These barriers have been recognised as key areas where improved capacity building is required to ensure that coastal communities are more able to engage with coastal and marine issues and their management through i) improved sense of ownership and trust between stakeholders and decision-makers; ii) a clearer understanding of the problems and issues facing an area, with opportunities for co-development of solutions; iii) opportunities to examine the impacts of multiple uses and pressures on an area or resource and the potential trade-offs; increase the legitimacy and effectiveness of decision-making and management (Bennett et al., 2017; Ehler and Douvere, 2009). In short, by investing in coastal community capacity building, communities will be more able to play an active role in determining their own future.

Coastal communities across Wales are not homogenous – while there may be similarities and typologies which can be identified, each community will have its own specific characteristics and needs. This is clearly outlined in the Welsh Government report on 'Developing of a Coastal Community Typology for Wales' published in 2018. This report outlined nine Coastal Community Typologies which highlight the diversity and richness, as well as the challenges, in Wales's coastal communities (summarised in Figure 1).

## Marine Evidence Synthesis

Figure 1: Coastal Community Typologies in Wales (Welsh Government, 2018)



The geographic spread of these coastal community typologies varies across Wales, meaning there is no one size fits all approach to coastal community capacity building that can be applied (see Figure 2).

## Marine Evidence Synthesis

Figure 2: Typical locations for each coastal community typology in Wales (Welsh Government, 2018).

| Typology category                           | Example locations   |
|---|---|
| A1 Coastal retreats: Market towns           | Areas in and around: Conwy, Pwllheli, St Asaph, Fishguard, Barmouth   |
| A2 Coastal retreats: Rural tourism          | Large concentrations in North West Wales (Gwynedd) including Harlech, Criccieth, Tal-y-bont, Nefyn, Abersoch. Approximately half are located in smaller settlements with populations less than 300 people.                              |
| A3 Coastal retreats: Rural chic             | Predominantly rural areas with some concentrations in historical small towns including St Davids and some in small seaside villages Benllech, Trearddur. More than 90% located in smaller settlements with populations less than 1,500. |
| B1 Coastal challenges: Structural shifters  | Areas in and around: Maesteg, Burry Port, Llanelli parts of Newport, Bridgend, Swansea, Flint, Barry  |
| B2 Coastal challenges: Resorts and ports    | Areas in and around: Holyhead, Milford Haven, Pembroke Dock, Rhyl, Caernarfon, Amlwch   |
| B3 Coastal challenges: Striving communities | Social housing estates in larger towns and cities including Swansea, Cardiff, Newport and some presence in smaller towns including Neath, Port Talbot, Flint, Llanelli, Barry and Cwmavon   |
| C Cosmopolitan coast                        | Areas in and around: Central Cardiff, parts of university towns: Bangor and Aberystwyth. Also present in parts of smaller seaside resorts Tenby, Llandudno, Porthcawl   |
| D1 Coastal fringe: Prosperous suburbia      | Predominantly commuter towns close to larger towns for example Cowbridge, Pentyrch and Penarth (Cardiff), Murton (Swansea), Gresford (Wrexham)  |
| D2 Coastal fringe: Working hard             | Areas in and around: Broughton, Penyffordd, Rhoose, Pencoed parts of Buckley.   |

As explained above, the need to build capacity within coastal communities on topics relating to Wales's coasts and seas has been recognised by Welsh Government as a key component of the broader Blue Recovery programme of work. Recent years have brought a number of challenges to coastal communities across Wales – the UK's Exit from the EU, the impact of the Covid-19 restrictions, and ongoing impacts of the climate and nature emergencies (e.g., biodiversity and habitat loss, sea level rise and coastal erosion, deteriorating water quality), have resulted in increasing unpredictability and vulnerability for many, particularly those smaller coastal businesses. As efforts to enhance capacity within communities continue, it is therefore important that capacity building initiatives support sustainable growth and diversification within businesses, build skills development and training to attract new entrants to maritime sectors, and promote and support existing Welsh coastal businesses. Building capacity is key to enabling coastal communities, practitioners, and all partners to develop effective and collaborative partnerships which deliver benefits for both the marine environment and address the social and economic challenges facing the coastal communities that depend on it.

The following sections of the report present the findings of a rapid literature review assessment relating to the three key questions set out in Section 1.

## Marine Evidence Synthesis

### 3.1. How can coastal community capacity development be best supported through community level facilitation and engagement activities? How can barriers and exclusions be tackled to ensure equal opportunities to develop these capacities?

Building coastal community capacity and developing social and human capital in Wales relating to marine and coastal issues, as explored above, requires a multiscale and multifaceted approach as different approaches will work in different places and for different people. As explored above, there are a number of barriers impacting coastal communities' capacity to be engaged in marine and coastal issues, including, but not limited to, a lack of long-term funding for projects; poor communication and a feeling of not being listened to; a lack of legacy or follow up activity following project completion; or even people within communities not feeling that they have a knowledge or capacity to have a role to play in marine and coastal issues. The following sections explore some key topics emerging from the literature regarding coastal community engagement, ocean literacy and diversification for sustainable coastal economies and communities.

#### 3.1.1. Co-development and community engagement

For coastal community capacity building initiatives to be successful, there is a need to understand and map Wales's coastal communities so that previously under-represented voices, and their values, can be facilitated as active participants in the issues facing Wales's coasts and seas. On the one hand, this should include active engagement and co-development with groups and communities that may perceive themselves as being marginalised – for example, research indicates that many within fishing communities feel that their voices are unheard, despite being a key marine and coastal stakeholder group. While there is limited published literature on this, particularly in the context of Wales, a recent study by Ford and Stewart (2021) found fishers across the UK to have a low level of trust in the majority of management and decision-making institutions relating to fisheries. The study explored the average levels of trust expressed by respondents in relation to the institutions primarily involved in fisheries management in the UK, finding that the majority of bodies received a largely negative response in terms of level of trustworthiness indicated from respondents. This low level of trust can be a challenge to meaningful community engagement; therefore, capacity building initiatives which build relationships and foster trust are needed.

The importance of UK coastal communities and their relationship with the marine environment and coast around them has been strongly emphasised in work from the New Economics Foundation, including their Blue New Deal, which set out a vision for sustainable and prosperous coastal communities (New Economics Foundation, 2016). This includes key aspects which could be adapted in a Welsh context, including for example, through initiatives which build capacity and empower local communities to lead and co-deliver place based approaches to regeneration; foster collaboration across sectors and the whole coastal economy (discussed in the following section); and support and build adaptive capacity to a changing coast and changing coastal economy<sup>7</sup>.

While this is clearly not solely a Wales issue (see for example, Kirwan et al., 2018), it is something that must be factored into any ongoing discussions regarding coastal community capacity building. Future coastal community capacity building must include initiatives which facilitate knowledge exchange and building of trust, with a focus on co-production of solutions to the challenges facing Wales's coasts and seas. Part of building coastal community capacity requires developing a clear understanding of whose voices and values are currently being represented in marine and coastal issues, identifying key groups which have perhaps historically been disengaged or perhaps completely marginalised from these discussions. Different people will have different experiences,

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<sup>7</sup> For more on the Blue New Deal [Turning back to the sea | New Economics Foundation](#)

## Marine Evidence Synthesis

uses and viewpoints about the marine and coastal environment which need to be accounted for. Recognising, understanding and, crucially taking account of the diverse perceptions, attitudes and values, which are present within and between different communities is increasingly being recognised as central to effective coastal and marine management (see for example, McKinley et al., 2020; Bennett, 2017; Potts et al., 2016; Jefferson et al., 2015). This trend is mirrored both in the research and policy communities, with a recent report from the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) highlighting a diverse set of value types (e.g. economic, ecological, social, cultural values) and methods of understanding and measuring these values, which must be considered to result in leverage and transformative change for the relationships between people and nature. Their framework outlines a four-step process, which is useful to consider when thinking about building capacity within coastal communities in such a way that all perspectives and individuals are represented (IPBES, 2022) – 1) identifying and understanding the different values people may attribute to nature; 2) measuring the diverse values of nature and making these visible; 3) understanding where these diverse values may be inserted into the policy cycle and leveraging these to facilitate transformative policy change; and, 4) embedding the diverse values of nature within decision-making processes.

In order for community engagement and capacity building to be effective, it is important to know who makes up Wales's coastal communities and the various stakeholders involved in the myriad of coastal and marine issues, as well as knowing more about the perceptions different communities hold about various marine issues (Jefferson et al., 2021; Potts et al., 2016; Jefferson et al., 2015). Existing skills and capacity should not be ignored or under-valued – local communities, for example those working within the fishing sector, including those involved in processing and other activities, have valuable, place specific, and often intergenerational knowledge about the ecological condition of their local marine or coastal area which can contribute to its management and sustainable development. Examples of where this has worked well include the Lamlash Bay Marine Protected Area (discussed later); studies from Pantin et al., (2015) who interviewed representatives of Wales's inshore fishing community to develop an improved understanding of commercial fishing in Wales, including mapping fishing activity, drivers of effort and assessing how activities have changed over time; and recent work from McKinley et al., (2022) who worked with coastal farmers and landowners, through a series of interviews and workshops, to assess and map grazing activity on saltmarshes across Wales, identifying variations across Welsh regions and species farmed, but also collecting valuable insight into the social and cultural importance of coastal agricultural practices in Welsh coastal communities. In addition, adopting methods such as Appreciative Inquiry<sup>88</sup>, which focuses on collaboration and identifying strengths to bring about change relating to a topic or sector, or Asset Based Community Development, which has been used to examine vulnerability and resilience in coastal communities in response to change. This approach is based on the premise that the best outcomes are delivered when a community draws on its strengths and utilises available skills and resources, organising as a collective to address a common challenge. May (2019) employed the Asset Based Community Development approach to investigate the adaptive capacity of fishing communities in North Carolina, USA – this method allowed differing capacities between two case study communities to be explored and better understood, highlighting strengths, power dynamics and resources within communities, and vulnerabilities and how these could be harnessed to support potential for coastal community adaptation. Darcy et al (2022) adopted this approach to examine issues relating to disability inclusion and accessibility in beach environments in Australia – while the programme itself did not result in establishing ongoing activities which were inclusive for all beach users, the process brought together multiple actors to identify potential solutions for beach users of varying ability and identified future priorities. A review of the published literature suggests that these approaches have not yet been used in Wales to understand and engage with coastal communities.

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<sup>88</sup> [What Is Appreciative Inquiry? \(Definition, Examples & Model\) \(positivepsychology.com\)](https://www.positivepsychology.com/what-is-appreciative-inquiry/)

## Marine Evidence Synthesis

Successful community engagement requires those within the community to have the capacity to be engaged in a meaningful way – therefore these topics of engagement and capacity building are interlinked. Engaging all communities in a meaningful co-development and co-design process from an early stage of project design and development, rather than once a project has been funded, is increasingly recognised as a corner stone of best practice in community engagement across both marine and coastal, as well as terrestrial issues (see Table 1). By engaging communities from the outset, capacity building can be designed into projects to ensure that projects are working with communities to identify their needs, creating ownership of the project design and solutions within the community and leading to a co-designed project with a longer-term vision. There are a number of core principles which should be considered to ensure effective and meaningful community and stakeholder engagement within any future initiatives for coastal community capacity building. Table 1 adapts core principles which were developed following a review of best practice guidance and literature for The Commonwealth Blue Charter.

Table 1: Core principles for stakeholder engagement (Adapted from McKinley and Jefferson, 2020)

| Principle                   | Description  |
|-----------------------------|--|
| Understanding and empathy   | Map the stakeholders to reveal all those who should be engaged in the project. Explore their values, needs, skills and assets, motivations for engaging, expected outcomes, perceptions of success, communication and engagement requirements. The earlier and more thoroughly this is done, the more successful the stakeholder engagement (and therefore the project) will be. |
| Engage early and throughout | Stakeholder engagement starts early - as early as possible. It is continuous throughout the project and informs project structure, planning and revision. Stakeholders should have the opportunity to shape the engagement process and be part of a co-development process where possible.   |
| Flexible and responsive     | The project and related funding programmes must be open to changing the project plan if required. Evaluation during and after the project should inform changes to ensure the other principles can be met. For example, if it becomes apparent that a sector is not being adequately engaged, the approaches should be adjusted accordingly.                                     |
| Inclusivity                 | Be inclusive of all groups, including those who are hard to reach. Engagement must be non-discriminatory, must be accessible to all, and must allow all voices to be heard. Provide support as needed to ensure all groups can contribute.   |
| Facilitate dialogue         | Encourage connections across and between stakeholders, perhaps through the use of professional facilitation.   |
| Communicate                 | Communication should be timely and well managed, providing access to relevant information, being tailored to target audiences, and be understandable and inclusive e.g. use plain language and a variety of media.   |
| Influential                 | The input from stakeholders contributes to the outcome of the decision-making process. The process for this should be clarified early in the project.  |

## Marine Evidence Synthesis

| Principle                              | Description   |
|--|---|
| Transparency                           | Projects should be transparent in their process and access to information. This builds and maintains stakeholder trust. Clarity in aims of the project and expectations of outcomes can establish the parameters early in the process. This includes setting expectations regarding what is beyond the scope of the project, and inflexible parameters such as legislation. |
| Integrity                              | Apply a principled approach ensuring projects work with honesty, openness, impartiality and respect for others in every phase of the process. This aligns with the philosophy of the Charter of the Commonwealth and the Blue Charter.  |
| Responsibility, leadership, creativity | Stakeholder engagement can appear simple in theory, but it is not easy in practice. Successful implementation requires project members who are able to take responsibility e.g. to facilitate compromise and resolve conflict, to be proactive in leading the process, have the creativity to resolve challenges, and the empathy to understand the people involved.        |

Community engagement is challenging in that it requires sufficient funding and resourcing to be allocated to allow relationships and trust to be built between various stakeholders – and there will always be challenges. There are, however, some examples of success stories, including some of the projects delivered by the Coastal Partnerships in Wales (discussed later), but also in the community driven Marine Protected Area in Lamlash Bay, Arran, in Scotland. Lamlash Bay was designated as a direct result of community lobbying through the Community of Arran Seabed Trust (COAST<sup>9</sup>) which was established in 1995. This example clearly illustrates the value of positive community engagement in marine conservation on both recovery of marine biodiversity, but also in raising marine stewardship among communities (Stewart et al., 2020; Bower, 2011). Other examples from Lyme Bay and the North Devon Marine Pioneer projects<sup>10</sup> are also explored below in Box 2 and 3.

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<sup>9</sup> [Our story - COAST \(arrancoast.com\)](http://arrancoast.com)

<sup>10</sup> [Marine Pioneer documents \(northdevonbiosphere.org.uk\)](http://northdevonbiosphere.org.uk)

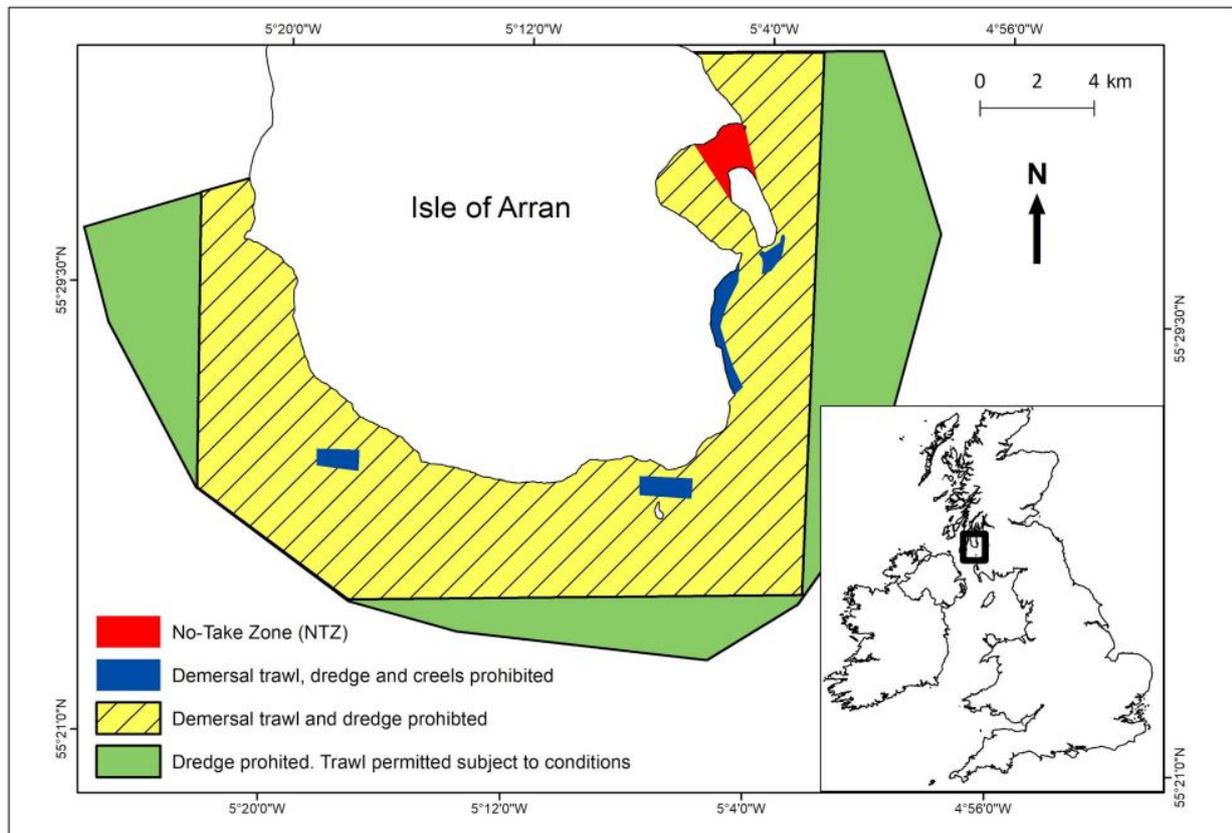
## Marine Evidence Synthesis

### Box 1: Case study of COAST

Lamlash Bay was designated as Scotland's first No Take Zone in 2008, proposed and campaigned for by the local community through the Community of Arran Seabed Trust (COAST), established in the mid-1990s. Following a community campaign, led by COAST, a community led group, the No Take Zone was granted with no fishing of any sort permitted within this area. The designation was then extended in 2014, when the Scottish government announced 30 new MPAs, including the South Arran Marine Protected Area, covering almost 300 km<sup>2</sup>, representing a community led MPA and allowing sustainable fishing methods in various zones. Through the work of COAST, the whole community have been engaged, ensuring all relevant stakeholders and their perspectives (including academics, members of the fishing community and others within the wider Arran community) have been included without marginalising any sector or aspect of the community. This has contributed to the success of both the No Take Zone and the MPA, and COAST are now working with the Scottish government and other coastal communities in Scotland to develop similar proposals for other areas which will promote sustainable fishing communities alongside sustainable marine management. The success of Lamlash Bay and now the wider South Arran MPA has largely been attributed to its origins as a small and committed group of individuals, coupled with successful engagement and support from the local community on Arran. Investing time and resource in building relationship with a wide range of actors across various sectors and scales (e.g. legal experts, civil servants and politicians), as well as working closely with scientists to understand and monitor the environment were key. Furthermore, through the creation of COAST, promotion through the media could be leveraged to increase public and political support (Stewart et al., 2020).

## Marine Evidence Synthesis

Figure 3: Map of the south of the Isle of Arran and the various management measures inside the South Arran Nature Conservation MPA, as from February 2016. Inset shows the area in relation to the United Kingdom (Taken from Stewart et al.,2020)



## Marine Evidence Synthesis

### Box 2: Case Study of Lyme Bay

Designated in 2010, Lyme Bay Fisheries and Conservation Reserve has resulted in a measurable increase in marine habitats and species, resulting in benefits for marine conservation and nature recovery, as well as supporting sustainable fisheries in the region. With closures first initiated in 2008, when 60 nautical square miles were closed to bottom towed fishing gear, further protections were put in place when the area was extended to 90 nautical miles in 2010. To ensure the success of this multi-use marine protected area, the Lyme Bay Fisheries and Conservation Reserve Working Group was established by the Blue Marine Foundation in 2011, whose committee set out guidance which ensures the MPA can deliver benefits for both nature recovery and sustainable fishing. It should be noted that there have been challenges in establishing the Lyme Bay designation, with early research into the engagement process indicating that stakeholders felt that issues had not been communicated clearly and highlighted a lack of trust and conflict between different stakeholder groups (Fleming and Jones, 2012). However, implementation of the MPA has continued and Lyme Bay is largely considered to be successful – this progress has been largely government led, supported by the Southern and Severn and Devon Inshore Fisheries and Conservation Authorities (IFCAs) formed following the Marine and Coastal Access Act in 2009, with support from the Blue Marine Foundation working group, which acts as a leader for action in the MPA (Singer and Jones, 2021). Currently, boats operating within the Reserve adhere to a memorandum of understanding and a voluntary code of conduct. Ongoing collaboration with the University of Plymouth supports regular monitoring of the reserve area and its species (see for example, Attrill et al., 2012), as well as some work on the social and economic impacts of the MPA designation on tourism and recreation (Rees et al., 2015) and commercial fisheries (Rees et al., 2021).

### Box 3: Case Study of the North Devon Marine Pioneer

The Marine Pioneer reflected the government's vision to "be the first generation to leave our environment in a better condition" and through work with the Marine Pioneer Steering Group and Biosphere's Marine Working Group, a Marine Natural Capital Plan was developed that used the lessons and demonstration projects from the Marine Pioneer. By working closely with a range of stakeholders, including national bodies such as the Marine Management Organisation and WWF-UK Seas, as well regional groups such as the South West Partnership for Environmental and Economic Prosperity (SWEEP) and the Devon and Severn Inshore Fisheries and Conservation Authority (IFCA), the project developed a natural capital asset and risk register as well as assessing stakeholder perceptions of governance and evaluating MPA effectiveness through engaging with diverse groups relevant to the North Devon marine biosphere, including local business groups, members of the fishing community, representatives from environmental groups and other community groups. The project objectives were: 1) To demonstrate the pathways between ecology, ecosystem services and benefits that influence human wellbeing; 2) Identify how stakeholders are linked (directly or indirectly) to natural capital; and 3) Identify relevant indicators, trade-offs, data sources and potential means for valuing ecosystem service benefits (monetary and non-monetary). Outputs from the project include an MPA governance toolkit, as well as guidance on sustainable finance and establishing and applying a Natural capital approach to marine and coastal management.

It should also be noted that there is perhaps an opportunity to align with the work being done by W-CaSP on ocean literacy in Wales to explore the issues currently being faced by coastal communities – this is explored in more detail in the next section.

## Marine Evidence Synthesis

### 3.1.2. Enhancing Ocean literacy in Wales

Most simply defined as having ‘an understanding of your influence on the ocean and its influence on you’, the concept began as a response to a lack of marine education in the United States. In recent years, the concept has evolved considerably with a growing number of studies exploring it from a range of perspectives (see for example McKinley and Burdon, 2020; Brennen et al., 2019; Kopke et al., 2019), and recognising that ocean literacy about more than education and communication. Current thinking indicates there to be at least ten different dimensions of ocean literacy, including: knowledge, awareness, attitudes, communication, behaviour, activism, emotional connection, experience and access, trust and transparency and adaptive capacity (McKinley and Burdon, 2020), highlighting the complex relationships between society and the coast and seas. W-CaSP has identified the need to better understand ocean literacy across Wales as a core area of work and has established a Task and Finish Group to further develop what ocean literacy looks like in a Welsh context.

Related to this work on coastal community capacity building, is understanding existing levels of ocean literacy in communities across Wales is a key starting point in exploring the scope, scale and opportunities needed for capacity building in different contexts. It provides a baseline assessment of current attitudes and perceptions towards a range of marine and coastal topics, including issues relating to management, threats and concerns regarding the marine environment and perceptions of how the marine and coastal environment is used and valued and allows insights to be gathered about how the diverse communities across Wales relate to their sea and coast. The recent Defra, NRW and Marine Scotland funded Ocean Literacy survey<sup>11</sup> (to date carried out twice, in 2021 and 2022) provides a valuable starting point for this work and can be used to identify priority areas for future work. Results from the NRW Report on the Welsh sample in 2021 (n=2440) found that 87% of respondents felt that it is important to protect the marine environment. Analysis found marine litter/plastic pollution to be the selected as the most significant pressure impacting the marine environment (76%), suggesting awareness need to be raised about the impact of other issues facing the marine environment, while 80% of respondents indicated a willingness to change their behaviour, with “concern” indicated as the most frequently selected emotional response when asked about how they feel about the marine environment (selected 47% of the time by respondents, followed by “awe/wonder” by 42%). In terms of respondents’ ocean knowledge, there were knowledge gaps relating to a number of key terms including carbon sequestration, ecosystem services, and nature-based solutions, with less than 50% of respondents indicating familiarity with these terms (NRW, 2022).

More analysis of the existing data is required to explore how responses vary across Wales (i.e. in different social, economic and geographical contexts) and how and/or where more effort is needed to further understand of the values and connections held within and across communities, not least to ensure the heterogeneity and rich diversity within Wales’s coastal communities is recognised and considered in relation to marine and coastal issues. Studies exploring public perceptions of marine and coastal environments (see Jefferson et al., 2015; 2021 for details on current trends in this area of research) are much needed in Wales – particularly on marine and coastal topics, ecosystems or species that may not be considered to be ‘attractive’ or priorities for policy makers. For example, in the context of a coastal fringe ecosystem, such as saltmarshes, which are increasingly being recognised for their potential value in carbon storage and nature-based solutions to adapt to climate change, research indicates that community understanding of these systems and the benefits they provide to society is varied. For example, through the NRN-LCEE funded RESILCOAST<sup>12</sup> project, McKinley et al., (2020c) showed that public understanding of saltmarshes in Wales is quite low. Their national study (n=1136) on public perceptions of saltmarshes in Wales found only 37% had knowingly visited a saltmarsh, with over 90% of respondents indicating that they have either basic

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<sup>11</sup> [15131\\_ME5239OceanLiteracyHeadlineReport\\_FINAL.pdf \(oceanconservationtrust.org\)](#)

<sup>12</sup> [Resilcoast \(lceernw.ac.uk\)](#)

## Marine Evidence Synthesis

or no knowledge of saltmarshes, despite saltmarshes being relatively widespread across Wales's estuaries and coasts. Despite a lack of knowledge, there were high levels of agreement from respondents when asked about the benefits provided by saltmarshes (e.g. that saltmarshes are important for coastal defence) as well as agreement that saltmarshes are under-valued by communities. Given the importance of saltmarshes for biodiversity and as nursery habitats, and other coastal fringe habitats in discussions on blue carbon, nature-based solutions and wider climate mitigation, understanding how people relate to these 'forgotten landscapes' is crucial to understanding where existing gaps in capacity lie particularly if restoration schemes are to be supported and successful.

There is, therefore, resource and effort required to support ongoing initiatives to further develop ocean literacy in Wales, including through the development of a Welsh ocean literacy vision and strategy, which not only recognises the importance and value of Wales's marine resources from an environmental perspective, but also highlights the cultural and heritage importance of Wales's coastal places and communities, and recognises the social value of Wales's coastal communities. Some of this work is underway, led by Natural Resources Wales, but the overlap between ocean literacy and coastal community capacity building should be recognised and maximised. There are also opportunities to draw from work taking place in other countries on ocean literacy, and how this links to coastal community development, including work happening in other areas of the UK, such as Scotland's alignment with their Sustainable Blue Economy Strategy, as well as initiatives in Portugal, Brazil, Republic of Ireland, and Canada (see Box 4 for more on the work carried out by the Canadian Ocean Literacy Coalition).

### Box 4: Canada's Ocean Literacy Strategy<sup>13</sup>

Canada's Ocean Literacy Strategy was developed by the Canadian Ocean Literacy Coalition (COLC), an alliance of multiple organisations and communities established in 2018 to collectively work towards understanding and enhancing ocean literacy in Canada. Over the past 5 years, COLC have adopted an approach which embraces multiple tools, scales and communities, culminating in development of a series of regional and national reports on what ocean literacy means for Canada, across nine different work streams (health, NGOs, education, arts and culture, government, research, youth, industry, media and community) to provide a common framework through which all communities and stakeholders can get involved in marine and coastal issues. The Canadian National Ocean Literacy Strategy was launched in March 2021 and is currently being implemented with support from COLC.

Finally, there may be opportunities to explore how ocean literacy initiatives can be used to leverage collaboration between different actors and sectors across Wales – for example, opportunities to raise awareness of the importance of Wales's coastal places and the impacts of tourism on these environments. Future ocean literacy initiatives could draw on existing programmes, such as the Association of Severn Estuary Relevant Authorities (ASERA)<sup>14</sup> Good Practice Guidelines<sup>15</sup> which provide guidance for sustainable recreational use of the Severn Estuary.

<sup>13</sup> [CANADA'S OCEAN LITERACY STRATEGY – COLC 2022 \(colcoalition.ca\)](https://colcoalition.ca)

<sup>14</sup> [ASERA](https://www.asera.org.uk)

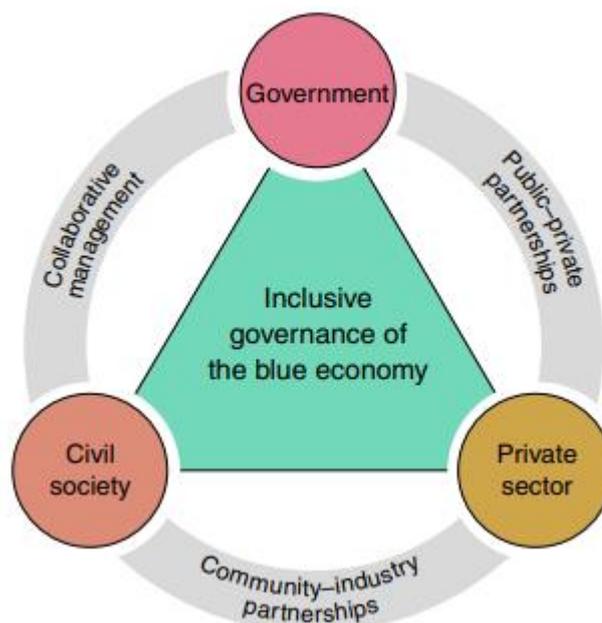
<sup>15</sup> [Good Practice Guidelines – ASERA](https://www.asera.org.uk)

## Marine Evidence Synthesis

### 3.1.3. Diversification for sustainable coastal communities

Wales's coastal economy is diverse, with a broad range of maritime industries represented by businesses across the country, including but not limited to fishing and related processing, aquaculture, coastal tourism, marine and coastal recreation, ports and shipping, aggregates, and marine renewable energy. Interest in the role of coastal and maritime industries, termed the 'blue economy', in overall economic development has seen significant growth in recent years, with increasing focus on the importance of developing sustainable, inclusive, and equitable blue economy agendas (Bennett et al., 2019; 2022 – see Figure 4 and 5).

Figure 4: Requirements of a sustainable, equitable blue economy based on the recognition that, to date, blue-economy governance has focused on how the ocean will be developed and by whom (Bennett et al., 2019).



There is now an increasing focus on who will benefit and how benefits will be distributed, how harms will be minimised, and who will bear responsibility for any outcomes from decisions. Inclusive governance, therefore, requires that decision-making structures and processes are representative of diverse actors from civil society, the private sector and governments (Bennett et al., 2019).

While the blue economy agenda, and its goal of sustainable development, has the potential to benefit coastal communities, through regeneration and reinvigoration of coastal economies, creation of new job opportunities, improved food security and wellbeing, coastal community capacity building must be central to this. To ensure that those working and living within these communities can be meaningfully engaged in discussions and decisions which may impact their community. Although Wales does not yet have a formal blue economy strategy, a core policy objective remains that of sustainable growth and development of Welsh maritime sectors and businesses. In order for a truly sustainable blue economy agenda for Wales to be developed, the maritime sector and its stakeholders needs to be actively engaged – at all scales – to ensure a meaningful co-designed, co-developed way forward. For example, the Welsh fishing sector is under pressure from a wide range of factors, including changing legislation post EU Exit, increased costs, changes to market access,

## Marine Evidence Synthesis

as well as the ongoing impacts of climate change and calls to decrease fishing efforts amidst overfishing concerns (National Assembly for Wales, 2018), whilst there is also pressure to be seeking to capitalise on the opportunities of Brexit. All of this is impacting not only the resilience of the Welsh fishing sector and coastal communities (Homolova et al., 2020). Whilst other sectors can avail of supportive funding and subsidies (e.g. agricultural sectors can avail of the Wales's Sustainable Farming Scheme<sup>16</sup>), which can allow them to reduce effort and intensity, fishers do not have access to such a scheme, limiting opportunities to engage in certain practices or make changes that they might otherwise want to make. While some voluntary schemes and collective agreements regarding fishing activity do exist in other parts of the UK (e.g. Lamlash Bay No Take Zone, Arran, Scotland<sup>17</sup>), there is no scheme of this type currently in operation in Wales and the voluntary nature of many schemes can result in additional financial pressure being placed on fishers and other related businesses. Facilitating a truly sustainable transition for the fishing sector requires active engagement with this group and may require new approaches to sustainable finance for fisheries in the future (Rangeley and Davies, 2012).

Furthermore, there is a need to recognise that the maritime sector is constantly evolving with a range of emerging technologies and industries being developed – these, often capital and technology intensive industries, can mean fewer economic and social benefits for smaller coastal communities as jobs and material requirements are outsourced to larger companies or even foreign corporations (Bennett et al., 2022). This has been a recognised issue in marine renewable energy (MRE) for example, which led to a number of EU funded projects exploring SMEs and the MRE supply chain across the English Channel. See for example, Channel MOR<sup>18</sup> which explored how local SMEs across the south coast of England could become better integrated into the MRE supply chain to realise benefits for their local communities, highlighting a need for skills development and training to build capacity for new entrants into the sector. This project echoed the findings from Kerr et al., (2014) who found that the promise of job creation in the marine renewable energy sector need to be supported by details of what this might look like in the future – how many jobs? In what time frame? In what regions? And what transferable skills might exist or where may skills development be needed? The importance of understanding the local skills market across Wales has been identified as a key factor as to whether the benefits of developing Wales's marine renewable energy sector would be realised on a local and regional scale (Roche et al., 2016).

In Wales, one maritime sector which has planned growth is the development of aquaculture (including finfish, shellfish and seaweed aquaculture industries) as part of a sustainable coastal economy. Wales's aquaculture industry is experiencing increasing demand for both its shellfish and finfish produce, with Welsh Government publishing sector locational guidance for the sector in June 2022<sup>19</sup> to support implementation of the Welsh National Marine Plan and promote sustainable development of Wales's aquaculture industry. This guidance is in collaboration with key marine and coastal stakeholders, including Pembrokeshire Coastal Forum, local authorities, Welsh Government and Natural Resources Wales. A report from Seafish in 2016 on Aquaculture in England, Wales and Northern Ireland suggested that Wales's aquaculture industry was in need of investment to support growth of the sector, following a period of decline and stagnation (Hambrey and Evans, 2016). The study goes on to suggest that for aquaculture to be a meaningful part of rural coastal economies, innovation and opportunities for diversification must be explored, which address the identified constraints to the development of aquaculture. These are highlighted as being: access to market opportunities, site developments, regulatory constraints and a lack of the technology and skills capacity to develop the market (Hambrey and Evans, 2016). From an environmental perspective, site selection for aquaculture can be limited due to poor water quality, linked to pollution (including for example heavy metals, faecal matter and agricultural run-off) coming off land and into the marine

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<sup>16</sup> [Sustainable Farming Scheme | GOV.WALES](#)

<sup>17</sup> [No Take Zone - COAST \(arrancoast.com\)](#)

<sup>18</sup> [VIDEO: Channel MOR Project - Offshore Energy \(offshore-energy.biz\)](#)

<sup>19</sup> [Sector locational guidance: aquaculture | GOV.WALES](#)

## Marine Evidence Synthesis

environment (Webber et al., 2021; Brown et al., 2020). Future coastal community capacity building work in Wales could include a focus on exploring where aquaculture developments would be best placed, where the skills and capacity gaps might lie, where existing resources might be, and what the social, economic and ecological implications of developing aquaculture initiatives might be. Câr-y-Môr<sup>20</sup> is a Community Benefit Society<sup>21</sup> which seeks to develop sustainable aquaculture in Wales through community owned regenerative ocean farming that enhances the local community through job creation and supporting well-being, whilst also improving the coastal environment. Although at the early stages, the group has over 200 community owners, representing a wide range of diverse world views and perspectives, and are currently looking at commercialising their earlier trials of growing native seaweed and shellfish species.

To truly build capacity in Wales's coastal communities means recognising the existing skills and value within Wales's maritime businesses across the whole supply chain (i.e. not just within those directly employed in a sector, such as fishers, but also those involved in indirect employment such as processing, sales or transport of produce), identifying pathways to entry for smaller companies into emerging markets, as well as new businesses who may want to enter the market maximise the opportunities to add value within Wales, and providing support for Welsh innovation and business in a way that is equitable and beneficial to the whole community. Issues of sustainability and equity are of increasing concern within blue economy discussions, including engagement of marginalised communities, gender equality and ensuring fair and equal distribution of benefits associated with economic development (Ertor, 2021; Gustavsson et al., 2021). Gustavsson et al., (2021), for example, explores gender equality within fishing communities, and through investigation of four case studies, suggests that sustainable coastal industries need to look 'beyond the blue' and consider issues relating to health care, onshore work, community cohesion, and even childcare. For community capacity to be developed, this type of multifaceted interpretation of 'community' and ideas of capital are needed. Other work by Gustavsson and Riley (2018) found, through their study on the Llyn Peninsula, that a lack of visibility of women in fishing limits their capacity to accrue and exhibit their own social and economic capital, suggesting that one aspect of coastal community capacity building need to be about making all voices and people visible. This is further explored by Bennett et al. (2022) who set out a series of recommendations to advance socially sustainable and equitable blue growth (i.e. growth of maritime sectors), which suggest prioritising people and place before economic profits, including the suggestion that community based blue economy initiatives have been identified as one mechanism that could help to achieve this (Figure 5). A number of structures could be explored to facilitate this sort of community driven approach, including through development of locally based processing facilities which add and retain value in Wales (also discussed in relation to maritime clusters later), but also through exploring opportunities with the Community Asset Development Fund<sup>22</sup>, or through the development of community driven social enterprises and cooperatives.

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<sup>20</sup> [Câr-y-Môr \(carymor.wales\)](http://carymor.wales)

<sup>21</sup> A community benefit society conducts business for the benefit of their community. Any generated profit is not distributed among members, or external shareholders, but reinvested back into the community benefit society to further achieve its aims - [Our Mision — Câr-y-Môr \(carymor.wales\)](http://OurMision—Câr-y-Môr(carymor.wales))

<sup>22</sup> [Community Asset Development Fund - WCVA](http://CommunityAssetDevelopmentFund-WCVA)

## Marine Evidence Synthesis

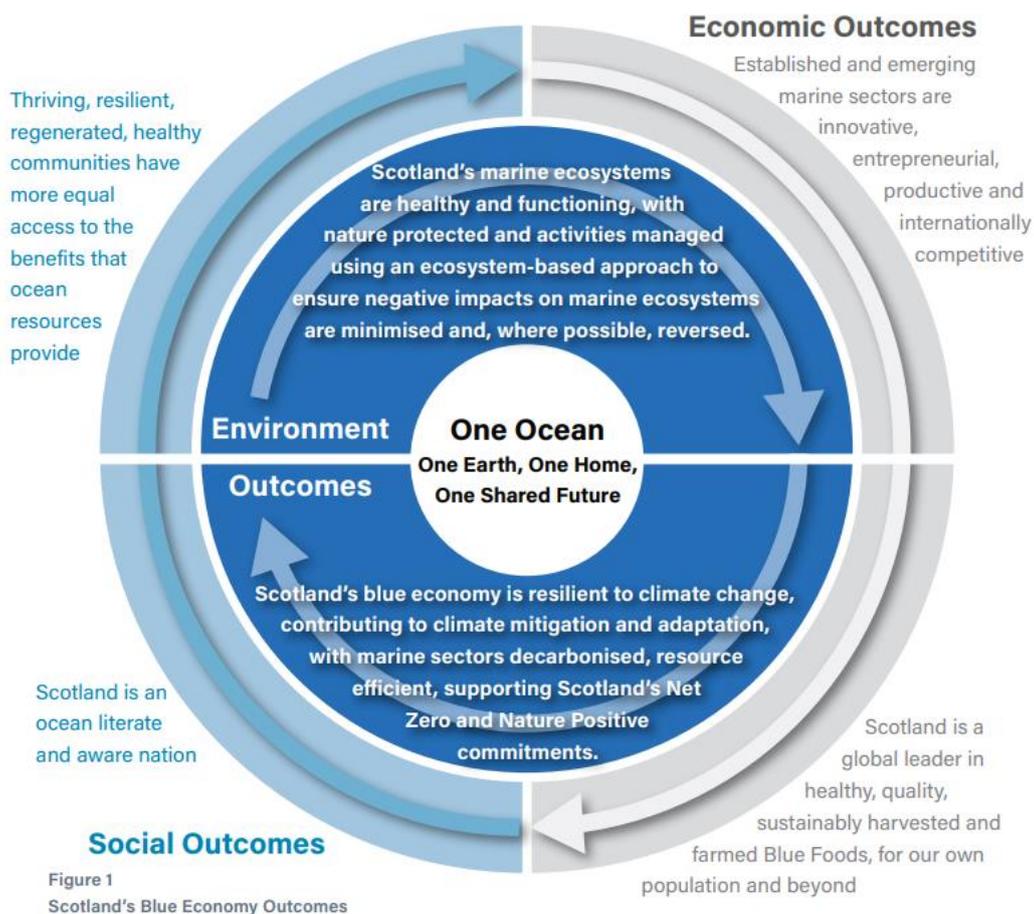
Figure 5: Advancing social sustainability and equity in the blue economy by establishing a foundation of human rights and aspiring to improve human wellbeing (Source: Bennett et al. 2022).



While this may be challenging, in Wales, the Wellbeing of Future Generations Act perhaps offers an opportunity to align ambitions of sustainable development with other metrics of societal wellbeing, adopting a similar approach to that outlined in Scotland's Blue Economy Vision, which aligns economic development, wellbeing and nature recovery as parallel ambitions (Figure 6).

## Marine Evidence Synthesis

Figure 6: Scotland's Blue Economy Outcomes (Taken from Scotland's Blue Economy Vision)<sup>23</sup>



The complexity of Wales's coastal economy should not be underestimated – a 2012 report from WWF Cymru estimated the coastal and marine environment to contribute £6.8 billion to the Welsh economy, supporting 92,000 jobs across a range of maritime sectors, including coastal tourism and recreation, research, conservation, fisheries, aquaculture, ports and shipping, and more (WWF Cymru, 2012). This scale and complexity mean there are a vast number of voices and perspectives which should be engaged in marine and coastal issues. To truly ensure these voices are represented, there needs to be an up-to-date mapping of existing stakeholders and projects carried out across Wales. This mapping and scoping exercise would allow a more detailed stakeholder analysis to be carried out and ensure that those who have not previously been engaged in these discussions can be in the future – this process would also identify where capacity building is needed to support future engagement.

In addition to ensuring community voices are heard, future coastal community capacity building initiatives must also bring in business actors from across the coastal economy and should therefore ensure that there are clear processes and opportunities for innovation and novel activities to be facilitated. This will encourage and enable different types of enterprise and businesses to be supported. There are, for example, complicated discussions which need to take place to ensure the needs of the fishing community, including associated processing, marketing and retail aspects of the industry, are supported and balanced alongside conservation and nature recovery goals in Wales. Current marine protection measures which can displace and/ or prevent fishing activity on various spatial and temporal scales do not compensate fishing communities for any loss in revenue. Similarly, historical iterations of the European Marine and Fisheries Fund (EMFF) have focused on

<sup>23</sup> [A Blue Economy Vision for Scotland - gov.scot \(www.gov.scot\)](http://www.gov.scot)

## Marine Evidence Synthesis

capital grants for equipment, rather than long-term funding to support sustainable management of the fishery or sustainability of the coastal community and its economy. Given that there are instances of fishers' support for marine protection and management, seen for example, in the case of Lamlash Bay, Scotland, it can be inferred that nature recovery can be considered alongside sustainable fisheries. However, as outlined by Hilborn and Hilborn (2019) there is a need for more in-depth assessments of what sustainability would look like for fisheries, including fish stock status, success and failures of management and decision-making, and how the impacts of fishing on marine ecosystems are being considered.

Diversification and sustainable growth of these existing maritime sectors, such as the fishing sector, need to take account of the whole system, possibly identifying opportunities to foster better connections between different sectors and across the whole value and supply chain, recognising that these sectors often support a significant level of both direct and indirect employment (e.g., processing and production centres). One possibility for future capacity building could be to explore the potential for maritime clusters or hubs, which have been used successfully in some maritime sectors, such as recreational boating, where marinas act as a geographical hub for all related businesses). The concept of maritime clusters emerged from the idea of economic business clusters, where a group of businesses and organisations, usually located in the same place, and based in the same or related industry, work in a collaborative and collective manner to realise economic benefits, increase business efficiency and reduce risks to individual companies (Doloreaux, 2017; Monteiro et al., 2013; Chang, 2011). Historically, maritime sectors have tended to operate on a sector-by-sector basis, meaning that the sort of collaborative and partnership-based working required for a maritime cluster to be successful has not necessarily been the norm (Chang, 2011) – this is changing, however. When effective, maritime clusters can increase business efficiency, through sharing of resources and group ordering, for example, provide shared training opportunities, or working together to identify new business ideas and innovations (Chang, 2011). The Scottish Maritime Cluster<sup>24</sup>, Maritime UK South West<sup>25</sup> (Box 5), Cornwall Marine Network<sup>26</sup>, and the Welsh Seafood Cluster (see below in Box 6) are examples of where the model of cluster-based working has been effective in the UK, as, to some degree, are the Fisheries Local Action Groups (discussed in the next section).

### Box 5: Maritime UK South West case study

Maritime UK South West is an ocean technology cluster bringing together representatives from industry, academia and the public sector. The group was established to champion and grow the maritime sector across the southwest of England, extending from Cornwall to Hampshire. The focus of the group is to increase collaboration and innovation across maritime industries in its region, increase trade and investment to ensure a sustainable maritime and coastal economy, and act as a voice to policy makers. In particular, the cluster promotes four overlapping areas of marine industry – marine manufacturing, ocean science and aquaculture, offshore renewable energy and marine autonomy and geospatial data. The cluster accounts for £2.54 billion in gross value added/ year to the regional economy, supporting 4000 businesses and 25, 000 jobs. Relating to offshore renewable energy sector development, Maritime UK South West's Renewable Energy Centre of Excellence has developed several test and deployment sites (e.g., the Wave Hub and FaBTest in Cornwall) for wave, tidal and wind energy, including investment in floating offshore wind in the Celtic Sea with opportunities for companies along the south west to enter the supply chain. Through the cluster, 22 research institutions are working together within the offshore renewable energy centre of excellence to support new technology development. More details can be found here: [Offshore Renewable Energy 2020\\_v5\\_AW.indd \(maritimeuksw.org\)](#)

<sup>24</sup> [Scottish Maritime Cluster](#)

<sup>25</sup> [Maritime UK South West - creating a clean and prosperous maritime future \(maritimeuksw.org\)](#)

<sup>26</sup> [Cornwall Marine Network – Helping marine businesses in Cornwall](#)

## Marine Evidence Synthesis

A future focus for capacity building in coastal communities in Wales could be to make new funding pots available which support the concept of clusters or hubs, with efforts directed at creating partnership working between businesses (e.g., between fishers and processes companies to add value to product within the local economy). These could also foster working also across supply and value chains to strengthen local economies and reduce the level of risk facing many maritime sectors, and the SMEs<sup>27</sup> that they are made up of, by spreading costs and enabling collaborative initiatives to support sustainable growth. Given that needs will vary across Wales, it is likely that future funding should provide options for projects relating to a range of areas of Research and Development, including capital investment for infrastructure and equipment, funding to supporting training, and to compensate for people's time to invest and develop the cluster.

Aligned with this, there is scope to explore how diversification of activities could support and strengthen coastal community resilience and sustainable growth. There may be opportunities for collaboration across sectors to support the transitions needed within business practices whilst also delivering nature recovery. For example, collaboration between fishers and environmental monitoring agencies or research institutions e.g., fishers could have a role in achieving other policy goals, such as Wales's policies to improve biodiversity (Net Gain<sup>28</sup>) or reduce carbon emissions (Net Zero<sup>29</sup>) ambitions through an end goal of transitioning to a decarbonised sector. Or, through initiatives which add value to local produce and strengthen coastal community economies, aligning fishing with the tourism sector through seafood festivals and other community events, raising consumer awareness and demand for Welsh seafood and products. Events of this nature not only raise community engagement and awareness of the value and importance of the marine environment, but they also highlight and support local maritime businesses, and can attract visitors to a community.

This alignment between local fishing, local tourism and destination management and marketing is not a new concept and has had success in other places in delivering benefits for local communities, building capacity among existing local businesses, enhancing local place identity and supporting maritime and coastal tourism development within coastal communities (Pizzichini et al., 2021; Kim, et al., 2017; Lee and Arcodia, 2011). There is also the potential for coastal communities to support and respond to current policy priorities, including the development and use of Nature-based Solutions (NBS) as a way of mitigating and adapting to the impacts of climate change. The need to 'work with nature' is a key focus for both Welsh Government's Net Gain and Net Zero ambitions, and there may be scope for future coastal capacity building initiatives to explore opportunities for NBS as an option for diversification and the creation of jobs and sustainable economies. This could be through the development of new technologies to deliver NBS or through the increased capacity required for ongoing assessments and monitoring of NBS to assess impact and effectiveness. This could be supported by existing marine and coastal stakeholders, such as the fishing community or coastal agricultural landowners, as well as through ongoing research require to support design of effective NBS (Cohn et al., 2022).

In addition, there is a need for capacity building initiatives which build skills and provide training across a broad set of sectors and capabilities, from training up new entrants to existing sectors, developing the skills of the workforce required for new and emerging blue economy industries, or developing the skills of those already in maritime industries to build resilience and sustainability by identifying new business opportunities. For example, small scale fishers will perhaps lack the advisory support or skills needed to fully capitalise on local markets. The development of local and regional seafood tourism or destination clusters, through seafood festivals and local food trails, could provide opportunities for additional training around marketing and promoting local produce to local

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<sup>27</sup> Small Medium Enterprises

<sup>28</sup> 'Net gain is an approach to development that aims to leave the natural environment in a measurably better state than beforehand' - [Net gain Consultation proposals \(defra.gov.uk\)](https://www.defra.gov.uk/net-gain/)

<sup>29</sup> [WG44621 Working together to reach Net Zero: All Wales Plan 2021-25 \(gov.wales\)](https://www.gov.wales/wg44621-working-together-to-reach-net-zero-all-wales-plan-2021-25)

## Marine Evidence Synthesis

communities. An example of this sort of collaboration in Wales can be seen in the Wales Seafood Cluster<sup>30,31</sup>, which is a Cywain<sup>32</sup> led project which encourages collaborative working between businesses of varying scales within the seafood sector (Box 6). Another example of this type of cluster type initiative, also funded through Cywain, is the Food and Drink Wales Find Food Cluster<sup>33</sup> which brings together diverse network of food related businesses in Wales and provides a platform for Welsh food and drink businesses to be ambitious and work collaboratively to address common challenges, through knowledge sharing, joint training initiatives and taking advantage of commercial opportunities as a collective through the cluster. This type of cluster approach has also been seen in the formation of Marine Energy Wales<sup>34</sup>, which brings together a diverse community of technology developers across the marine renewable energy supply chain, academia and public stakeholders. Initially developed by Pembrokeshire Coastal Forum as Marine Energy Pembrokeshire in 2010, the group launched as Marine Energy Wales in 2016 to represent the development of the industry at a national scale, working collaboratively to develop Wales's marine energy sector.

### Box 6: Case Study – Wales Seafood Cluster

The Welsh Seafood Cluster was established to bring together fishermen, fishmongers and aquaculture businesses. By working together, the cluster seeks to facilitate and support growth of the sector and add value to Welsh Seafood caught or farmed on Welsh shores. The Cluster work to develop innovative and novel approaches to support SME businesses and collaborate on joint market development and promotional activities. The Welsh Seafood Cluster provides support for businesses across the sector to develop projects on a range of topics, including Women in Fisheries and export management, working across a range of stakeholders, including academia, companies and other stakeholders, to support sustainable growth.

Attracting new entrants to maritime sectors is a known challenge on a global scale (Wrobel et al., 2022; Heirs and Manuel, 2021). In Wales, specifically, attracting new entrants to the fishing sector, raising awareness of financial support, and strengthening overall business and financial skills, have been identified as being fundamental to the long-term resilience of the fishing sector (Homolova et al., 2020). There is a need for future coastal community capacity building initiatives to include a programme of work that explores whether and why people might be leaving coastal communities in Wales, if certain career or vocation pathways are not seen as attractive to new entrants, and to include programmes which focus on raising awareness of maritime careers, providing information about entry and skills requirements, as well as career pathways across the whole of the maritime sector, including through direct and indirect employment (Heirs and Manuel, 2021). Examples of such initiatives in Wales include the work that Pembroke Dock Marine have undertaken through the Coastal Communities Adapting Together (CCAT) project to develop a marine energy careers guide<sup>35</sup> as well as hosting STEM careers events for young people in the region (Figure 7).

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<sup>30</sup> [Cluster Collaboration Creates Customers For Crab - Welsh Food and Drink](#)

<sup>31</sup> [Seafood Cluster collaboration creates new customers | Business Wales - Business Wales \(gov.wales\)](#)

<sup>32</sup> [Seafood Cluster - Cywain \(menterabusnes.cymru\)](#)

<sup>33</sup> [Fine Food Cluster - Cywain \(menterabusnes.cymru\)](#)

<sup>34</sup> [Marine Energy Wales |](#)

<sup>35</sup> [STEM \(mhpa.co.uk\)](#)

## Marine Evidence Synthesis

Figure 7: An example of a maritime career booklet (Port of Milford Haven - [STEM \(mhpa.co.uk\)](http://STEM(mhpa.co.uk)))

**An ocean of opportunity**  
**Your Guide to Careers in Marine Energy**

The waters around Pembrokeshire offer a powerful and consistent environment for testing these designs, with companies specialising in wave, tide and floating wind energy increasingly drawn to Milford Haven Waterway specifically to develop these devices.

The booklet was funded by the European Regional Development Fund through the Inland Waterways Cooperation Programme. Developed in collaboration with:

ccat, bombora, CATAPULT, MARINE, Port of Milford Haven

**Marine energy is poised to become a major part of the renewables revolution, and you could be part of it.**

Marine renewables refers to the energy that can be generated in, on and above the world's oceans, seas and rivers and converted into reliable, sustainable and affordable electricity that can be used to power homes, transport and industries. It's taken huge steps in the last decade with a wide variety of devices in development. The industry is growing fast and will be reliant on continual innovation, and this is where you come in. The industry will need people with **Science, Technology, Engineering and Maths (STEM)** skills to help them move forward.

With your help, the full benefit of reliable, renewable energy is within reach. It has huge knock on effects such as helping to meet our **climate change targets**, strengthening UK energy security, **creating jobs** and contributing to the UK economy.

There are lots of **exciting and innovative roles** in the industry, and not just in STEM! Developments in the sector will provide a **wide range of opportunities** and routes into the industry including vocational roles and apprenticeships. A single renewable energy project requires the contribution of people from a **range of backgrounds and skillsets**, from planners and project managers to engineers, tethering technicians, ROV operators, communications professionals, business developers, ecologists and even drone pilots. Take a look at some of the possible roles overleaf.

As the industry matures the skill base will increase. You could work outdoors, on land or at sea, in an office or in a laboratory. Many roles provide opportunities to **travel and work across the globe**. Working in marine renewables offers the chance to be **part of an exciting, growing industry** as well as playing a part in the protection of the environment. Marine energy is still a young industry, providing a setting where **innovative thinking flourishes**. Just think, your input and bright ideas could break ground on tomorrow's cutting-edge projects!

**Marine energy offers a wide range of career paths. Here are a few examples to get you thinking - but, if you can't see one you like, look overleaf for some other ideas:**

**Mechanical/Electrical Engineer**

**What they do**  
A Mechanical/Electrical Engineer will design and develop a device. They are responsible for ensuring the device and its parts withstand its operating environment and, ultimately, produce energy as efficiently as possible.

**How to get started?**  
• 2 or 3 A levels including maths and physics, or relevant Extended Diploma\* for a degree  
• 4 or 5 GCSEs (A\* to C) and A levels for an apprenticeship  
• Internships and work placements

**Would it suit you?**  
You'll need analytical thinking skills and attention to detail. IT, maths, science, technology and design ability will help you to think outside of the box.

**Possible career path**  
Apprentice +  
Mechanical/Electrical/Instrument Technician +  
Mechanical Engineer +  
Project Management +  
Engineering Consultant

**Design Engineer**

**What they do**  
A Design Engineer will work closely with the mechanical engineer to create the technical drawings and models based on the mechanical engineer's specifications.

**How to get started?**  
• An apprenticeship, likely requiring 4 or 5 GCSEs (A\* to C) including Maths, English and a science subject  
• 2 to 3 A levels, or relevant Extended Diploma\* for a degree

**Would it suit you?**  
You'll need to have a flair for design as well as being IT literate. Good numeracy skills are also important.

**Possible career path**  
CAD Apprentice +  
CAD Technician +  
CAD Engineer +  
Head of Engineering Services

\* The Extended Diploma is equivalent to three A-Levels and attracts UCAS points for entry to university. Pre-university courses and HNC/HND courses, accredited by UWISD are available to study at Pembrokeshire College for the above careers.

**Marine Scientist**  
(across a range of specialisms)

**What they do**  
Marine Scientists are critical, e.g. measuring and mapping the environment where the device will be installed. This helps with the engineering of the project and environmental statements to ensure the devices do not harm their operating environment.

**How to get started?**  
• 2 or 3 A levels, including a science. Maths and Geography are good (although not essential) - there are many routes into marine sciences, or Extended Diploma in Applied Science\* for a degree  
• A degree in a relevant subject for postgraduate study  
• Internships and work placements

**Would it suit you?**  
You'll need IT, presentation, numerical and statistics skills to help with your research. Problem solving and observation skills will complement practical fieldwork skills. As a Consultant, self-motivation, attention to detail and a real passion for your specialism will keep you in demand.

**Possible career path**  
You could find yourself working for a developer, but perhaps most likely your career path will be with a survey company collecting field data. You may work in marine consultancy advising developers, or with regulatory agencies such as the Crown Estate or Natural Resources Wales.

**Project Managers**  
(across a range of specialisms)

**What they do**  
A Project Manager is responsible for the scope and quality of a project ensuring it is delivered in time and to budget. They will typically be the connecting point between all delivery disciplines.

**How to get started?**  
Project Managers come from varied backgrounds. Formal project management usually involves gaining Project Management accreditations or relevant degrees but it's common to move into Project Management from other disciplines.

**Would it suit you?**  
You'll need to be highly organised and goal oriented. Excellent communication skills are necessary as well as IT literacy and good numeracy skills. Leadership skills are required to lead on a project and motivate different teams to deliver the plan.

**Possible career path**  
Project Officer/Assistant +  
Junior Project Manager +  
Project Manager +  
Senior Project Manager +  
Head of Project Management +  
Chief Operating Officer

It should be noted that this sort of initiative could be aligned with efforts to enhance ocean literacy among communities in Wales, as well as coastal community building. It is increasingly recognised that ocean knowledge should not just be about understanding ocean processes and ocean science, but also having a working knowledge of ocean and maritime careers and the opportunities that they offer for coastal communities (McKinley and Burdon, 2020). This alignment between these two thematic topics perhaps represents an opportunity to maximise the impact and reach of future funding opportunities relating to both coastal community capacity building and ocean literacy for Wales.

### 3.1.4. Key findings

- Early and continuous engagement with coastal communities is central to building capacity. Existing best practice should be adopted across Wales to ensure that all voices and values are included.
- Community engagement is challenging in that it requires sufficient funding and resourcing to be allocated to allow relationships and trust to be built between various stakeholders. However, as seen in examples such as Lamlash Bay, Scotland, the presence of community champions who take ownership of an initiative (in this case, the Community of Arran Seabed Trust or COAST) can result in successful engagement between multiple users with conflicting priorities.
- Defined as 'having an understanding of the ocean's influence on you, and your influence of the ocean', the concept of ocean literacy is gaining traction in Wales. There is an opportunity to align efforts to build coastal community capacity with existing work on ocean literacy, including the NRW ocean literacy survey for Wales, and the NRW led ocean literacy Task and Finish Group.
- Developing a sustainable coastal economy for Wales is central to the twin objectives of Nature Recovery and Sustainable Growth. Developing maritime clusters which seek to

## Marine Evidence Synthesis

support nature recovery whilst also fostering sustainable growth of Wales's maritime sector is an opportunity for further exploration, drawing on examples of existing clusters both in Wales and the UK.

- To truly understand Wales's coastal communities, there is a need to understand if and why people might be leaving coastal communities in Wales, if certain career or vocation pathways are not seen as attractive to new entrants, and to include programmes which focus on raising awareness of maritime careers and career pathways, including skills requirements.

### 3.2. What evidence is there on existing infrastructure and capacity, within Wales, to support communities to achieve the desired outcomes and capacities? What needs/limitations and best practice can be observed?

There are a number of groups, projects and communities of practice already engaged in activities which aim to enhance coastal community capacity in some manner - examples include the Coastal Community Adapting Together <sup>36</sup>project, the two Coastal Partnerships based in Wales, and the plethora of eNGOs and other groups all leading projects on marine and coastal topics. The purpose of this review was not to map these projects, as this will be partially captured through other activities in the programme of work; however, it should also be noted that the Ocean Literacy for Wales workshops held in June 2022 and led by Natural Resources Wales involved a mapping activity, which may be a useful resource for future work to understand where there might be existing infrastructure and capacity across Wales. In terms of specific infrastructure and capacity, the next section will explore some of the key topics identified in the literature, including coastal partnerships, existing funding opportunities and recommendations for the funding landscape in the future.

#### 3.2.1. Coastal community capacity building and partnership working

Due to the complexity of marine and coastal spaces, supporting multiple users and activities with multiple legislative and policy drivers (see Boyes and Elliott, 2016 for more on this), partnership working has long been recognised as having a valuable role in wider marine and coastal governance and as being central to the success of coastal management and policy (Kelly, 2012; Stojanovic and Barker, 2008; Storrier and McGlashan, 2006; Barker, 2005). One mechanism for enhancing coastal community capacity and supporting community engagement is the Coastal Partnerships and other coastal groups currently active around Wales. Figure 8 presents an overview of the geographical spread of coastal partnerships across the UK. The benefits of coastal partnerships are outlined in a recent report from the Coastal Partnership Network (CPN, 2022):

- Providing a platform for coordination and bringing people together around complex issues, such as the development of marine plans.
- Providing professional stakeholder and community engagement and facilitation expertise.
- Working with communities and stakeholders to take account of differing views and values relating to marine and coastal issues.
- Providing professional support to other groups (e.g. the Severn Estuary Partnership provides secretariat support for the Severn Estuary Coastal Group and Wales Coastal Group, among others).

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<sup>36</sup> [www.ccatproject.eu](http://www.ccatproject.eu)

## Marine Evidence Synthesis

Figure 8: Map of the 52 Coastal Partnerships the UK Coastal Partnership Network. Note that there are only two in Wales.



Although there are only two active Coastal Partnerships in Wales (the Severn Estuary Partnership, and the Pembrokeshire Coastal Forum) as shown in Figure 9, there a number of other active groups around Wales that are already working to engage with communities on a wide range of topics (see for e.g. Figure 9), including the Wales Coastal Group Forum and other regional or local coastal groups. These groups, whatever their form, already provide some structure and support collaboration and coordination at the coast. For example, the Severn Estuary Partnership<sup>37</sup> (SEP), formed in 1995, acts as an independent, coordinating body across the cross-border area of the Severn Estuary, bringing together stakeholders from both England and Wales, including national delivery bodies (e.g. Natural Resources Wales, Environment Agency), local authorities, relevant environmental NGOs and other groups to support decision-making for the Severn Estuary. Pembrokeshire Coastal Forum<sup>38</sup> (PCF), was established in 1996 in response to a number of events, including the Sea Empress disaster of the same year and a proposed Pembrokeshire Marine Special Area of Conservation. Like SEP, PCF acts as an independent and neutral body which brings together a wide range of stakeholders to address coastal issues and facilitate dialogue between stakeholders. Both Coastal Partnerships offer place-based understanding of specific marine and coastal topics, and work closely with stakeholders and communities to ensure they can engage with issues in a meaningful way (e.g. the development of marine spatial plans). Both coastal partnerships have a long history of successful engagement with stakeholders using a range of methods, including social media, newsletters, annual conferences, as well as through externally funded projects. Examples include SEP's involvement with the EU funded Innovative Management for Europe's Changing Coastal Resource or IMCORE<sup>39</sup> project on integrated coastal zone management and climate

<sup>37</sup> [Severn Estuary Partnership – Working in Partnership for the Future of the Severn Estuary](#)

<sup>38</sup> [Home - Pembrokeshire Coastal Forum \(PCF\)](#)

<sup>39</sup> [IMCORE – Severn Estuary Partnership](#)

## Marine Evidence Synthesis

change, which engaged with a wide range of stakeholders, varying from educators and school children to local planners and local authorities. Project outputs included the development of a Key Stage 4 education pack<sup>40</sup> and an Adaptation Challenge Game<sup>41</sup> which sought to raise awareness among school children about climate change. In addition, the project team, including Cardiff University and SEP, developed a range of future potential socio-economic scenarios<sup>42</sup> for the Severn Estuary, which were supported by Climate change report cards<sup>43</sup> aimed at Local Authority Officers. In addition, SEP's NRW funded Discover the Severn<sup>44</sup> project worked specifically with three under-represented communities on the Welsh side of the Estuary, in communities in Barry, Cardiff and Newport. Working closely with community champions in each of these three areas, SEP developed a programme of events and activities which sought to enhance community engagement with the Severn Estuary, and resulted in the creation of a number of resources<sup>45</sup>, including activity packs for each community, as well as four Discover the Severn guides focusing on wildlife, heritage and history, and Welsh walks of the Severn, all with a view to enhancing community access and use of the Estuary and its wider environment to benefit community wellbeing. Examples of other projects are presented in Box 7.

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<sup>40</sup> [Climate-Change-Education-Pack-english-final.pdf \(severnestuarypartnership.org.uk\)](#)

<sup>41</sup> [Adapt or loose! \(severnestuarypartnership.org.uk\)](#)

<sup>42</sup> [IMCORE-Severn-Estuary-FULL-Scenarios-06.05.11.pdf \(severnestuarypartnership.org.uk\)](#)

<sup>43</sup> [V2\\_SummaryReportCards \(severnestuarypartnership.org.uk\)](#)

<sup>44</sup> [Discover the Severn – Severn Estuary Partnership](#)

<sup>45</sup> [Discover the Severn Activity Packs – Severn Estuary Partnership](#)

## Marine Evidence Synthesis

### Box 7: Community projects from the Coastal Partnerships

#### **Severn Estuary Strategy**

In 2017, SEP launched the revised Severn Estuary Strategy which brought together insight and evidence from a wide range of stakeholders to develop a framework to inform more coordinated policy development, practices and strategies for the Severn Estuary. The Strategy is actively consulted by groups around the estuary (e.g. by the Severn Estuary Coastal Group for the Severn Estuary Shoreline Management Plan refresh). The Strategy can be accessed here: [2017-2027-Severn-Estuary-Strategy.pdf \(severnestuarypartnership.org.uk\)](https://severnestuarypartnership.org.uk/2017-2027-Severn-Estuary-Strategy.pdf)

#### **SEP Marine Planning Enhancing Stakeholder Engagement**

As a cross border coastal partnership, SEP works closely with relevant authorities in both England and Wales to support management and planning across the Estuary. In 2017, the Marine Management Organisation (MMO) launched their Enhancing Stakeholder Engagement project to encourage more effective engagement a wider range of stakeholders, including under-represented stakeholders. As an independent body, SEP hosted stakeholder engagement workshops, created new materials to support communications and engagement, and commissioned an animation introducing stakeholders to the marine plans, explaining how they work and how they are relevant to coastal stakeholders. The report from this project is available here: [1152\\_main\\_report.pdf \(severnestuarypartnership.org.uk\)](https://severnestuarypartnership.org.uk/1152_main_report.pdf)

#### **Pembrokeshire Marine Code**

A collaboration between Pembrokeshire Coastal Forum, Pembrokeshire Coastal National Park Authority, the National Trust and other local operators, the Pembrokeshire Marine Code was developed as a voluntary code of conduct to encourage users to show respect for the environment, wildlife and other users of the coastal and marine environment. The PMC aims to promote the various voluntary codes of conduct for the different species found along the Pembrokeshire coast, promote the quality and beauty of the Pembrokeshire coastline and its wildlife and promote environmental awareness through education. As part of this work, PCF have developed a toolkit outlining best practice which can be applied in other locations, encompassing wildlife species, identifying target audiences, development of training and education materials, funding and other lessons learned. [Pembrokeshire Marine Code |](#)

#### **Wales Activity Mapping (WAM)**

Developed and managed by PCF, Wales Activity Mapping is a collaborative stakeholder project which provides detailed information on marine and coastal activities – the information provided by WAM is used by multiple agencies as an evidence based within decision-making processes. Information and evidenced by the project have been used by a wide range of stakeholders including local authorities, the Marine Conservation Society, Visit Wales, National Trust, Welsh Government and more. [Wales Activity Mapping - Pembrokeshire Coastal Forum \(PCF\)](#)

There is a clear lack of formal Coastal Partnership coverage along the majority of the Welsh coastline (as seen in Figure 9). This potentially represents an opportunity for future coastal community capacity building initiatives to include a targeted effort to expand the existing Coastal Partnerships in Wales, building on the successes of SEP and PCF, and on the lessons learned from other CPs across England. Recommendations can be drawn from the recent Championing Coastal Coordination<sup>46</sup> (3Cs) funding call, which resulted in funding for a number of projects. This includes

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<sup>46</sup> [Solent Forum - Championing Coastal Coordination](#)

## Marine Evidence Synthesis

the Coastal Partnership Network's proposal for a National Framework for Coastal Coordination (CPN, 2022), which positions coastal partnerships as being able to deliver:

- Strong coastal leadership, with collaboration across sectors.
- Shared understanding among stakeholders about common issues across the land-sea interface.
- Provision of a learning and development programme to build skills and capacity on coastal issues among stakeholders and delivery partners,
- Formation of a coastal hub which could be used to support development of common messaging and communications,
- Improved understanding of the social (i.e. the shared valued and resources that allow individuals to effectively work together to achieve a common goal) and knowledge (i.e. the knowledge held by individuals and institutions) capital delivered as a result of partnership working, such as that seen through the coastal partnerships.

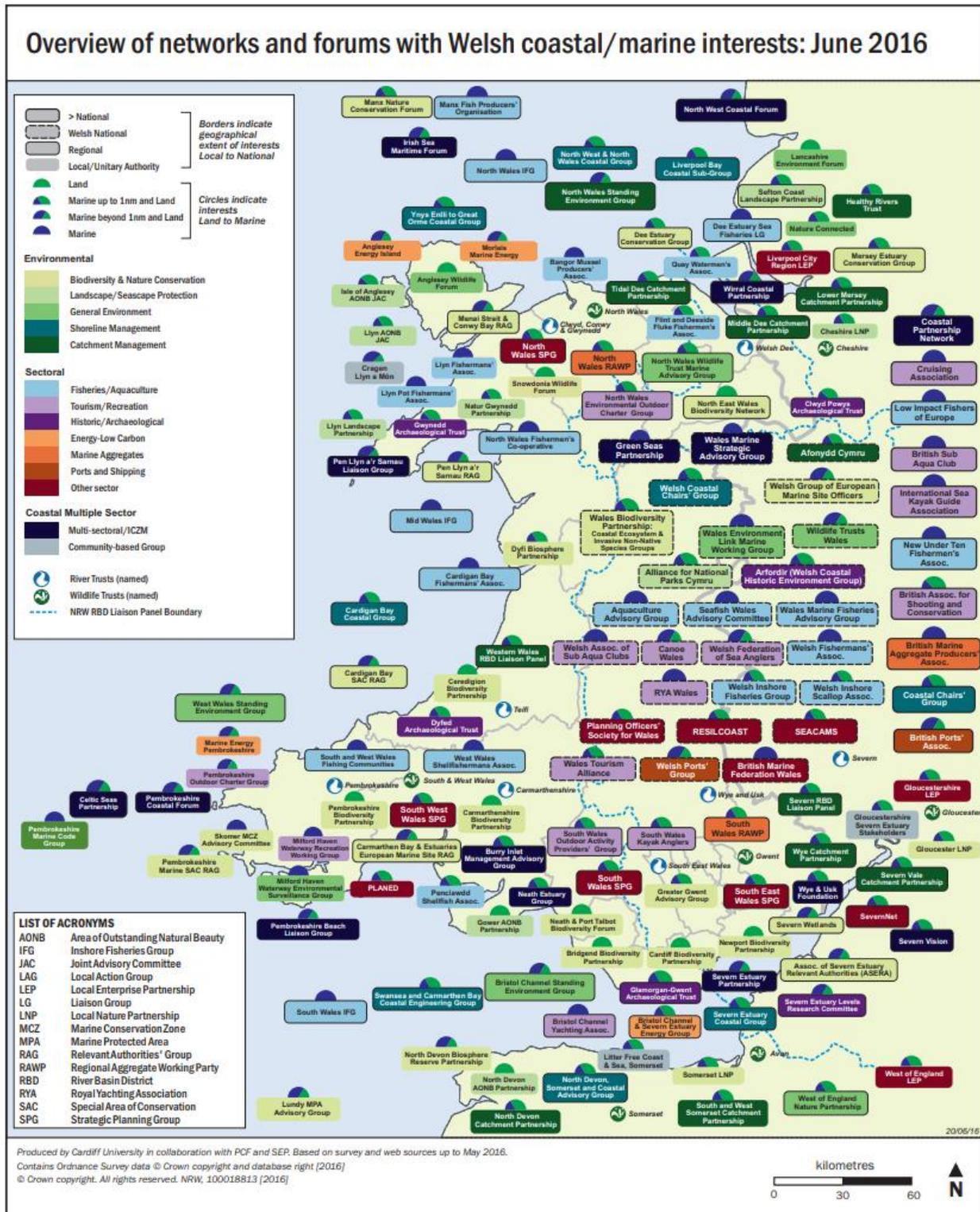
Developed as independent groups, coastal partnerships can support capacity building through the formation of trusted relationships, building on existing networks and partnerships to support collaborative governance, and bringing different knowledge holders and actors into coastal discussions. With the support of dedicated funding, and perhaps a Wales specific framework which builds on the existing work being done by SEP and PCF, coastal partnerships can provide facilitation and stakeholder engagement skills, supporting integration across the land-sea interface and ensuring that coastal communities are at the heart of discussions.

In addition to the formal coastal partnerships, there are a vast number of organisations, who are either currently, or have historically, been involved in coastal issues (Figure 9). In 2016, there were a wide range of different types (over 150) of groups, projects and initiatives carrying out work in relation to the marine and coastal environment in Wales, including shoreline management (e.g. Cardigan Bay Coastal Group, Severn Estuary Coastal Group), general environmental issues (West Wales Standing Environment Group, Anglesey Wildlife Forum, North Wales Wildlife Trust Marine Advisory Group), recreation groups (Welsh Sea Federation of Sea Anglers, Pembrokeshire Outdoor Charter Group), and ports and shipping (British Marine Federation Wales, British Ports Association). The Wales Coastal Directory which sets out these organisations, however, is out of date and lacking information about any new groups that have formed since 2016. In order to build capacity further, there is a need to understand where existing capacity lies and to identify where the thematic and geographical gaps may now be across the country. Drawing on existing stakeholder mapping guidance (e.g., Reed et al., 2009), the process of mapping Wales's marine and coastal stakeholders should:

- Identify key stakeholders across a range of sectors and scales;
- Develop a typology for categorising stakeholders, building on the framework used in 2016;
- Investigate existing relationships between stakeholders, through stakeholder network analysis, to explore where capacity gaps exist.

# Marine Evidence Synthesis

Figure 9: Map of the Welsh Coastal Directory developed in 2016 (by Cardiff University, PCF and SEP).



To build future community capacity building initiatives, it is also necessary to examine what has gone before in terms of working with communities, what has worked well and where things could have been done differently. With increasing focus on place-based approaches to addressing environmental issues and engaging communities in these topics, some key examples are that of the Fisheries Local Action Groups (FLAGS), the Local Nature Partnerships (LNPs) and the LEADER funding programme. Although there are examples and reports regarding projects related to these groups available, there appears to be limited published literature available regarding the effectiveness and impact of these initiatives and structures.

Funded through the EMFF, **FLAGS**<sup>47</sup> covered a discrete and designated geographical area, meaning that place-based approaches are central to their activities for the lifespan of their funding. In addition, FLAGS have been designed to be multi-stakeholder in nature, with requirements set out regarding the makeup of the partnership or consortia applying for funding – including, for example, significant representation from the fisheries and aquaculture sector (as expected for a fund of this nature), alongside representations from public, private and third sector organisations reflecting the need of the geographical area. By adopting a clear place-based remit, alongside clear guidance on a need for multi-stakeholder engagement, the FLAGS brought together diverse perspectives and views that need to be taken into consideration to achieve sustainable and economically viable fishing communities. FLAGS were present across much of Wales, including the Swansea Bay FLAG<sup>48</sup>, which set out a collective vision for Swansea Bay with an aim of achieving ‘successful, sustainable, economically viable local fishing and associated industries, aware of its heritage and well equipped to meet current and future challenges’, while Cardigan Bay FLAG<sup>49</sup> aimed to ‘promote the sustainable development of fisheries communities and areas’. The FLAGS have also been used as a way of examining and promoting equality and inclusivity within the fishing sector, seen through work carried out by Freeman and Svets (2022) on promoting the role of women in fisheries. Other examples of FLAG funded projects are presented in Box 8.

Box 8: Case Study of the Pembrokeshire FLAG and key projects<sup>50</sup>.

The Pembrokeshire Fisheries Local Action Group, established in 2012, sought to supporting the fishing sector and fishing communities within Pembrokeshire. The FLAG delivered a range of successful projects, including:

**Pembrokeshire Beach Food Company**, who specialise in developing added value seaweed and shellfish products, championing a place-based approach to their business which celebrates local products as well as local culture. Funding from the FLAG was used to invest in equipment and business premises to allow the business to develop their market and offer, promoting Welsh produce and recipes.

**Pembrokeshire Coastal Forum** undertook a feasibility study to explore the possibility of developing pesca-tourism as a coastal tourism offer in Pembrokeshire, fostering a strategic link between the fishing and tourism sectors. The project highlighted several evidence gaps including a need to assess public interest in pesca-tourism, examine the suitability of locations and harbours to support the offer, and run pilot studies.

<sup>47</sup> [Fisheries Local Action Group: eligibility guidance \[HTML\] | GOV.WALES](#)

<sup>48</sup> [Swansea - Swansea Bay Fisheries Local Action Group \(SBFLAG\) 2014-20](#)

<sup>49</sup> [Cardigan Bay Fisheries Local Action - Ceredigion County Council](#)

<sup>50</sup> [Pysgod Cymru - Local Action Groups](#)

## Marine Evidence Synthesis

Other examples of community engagement structures can be drawn from the **Local Action Groups**, which, although they are not marine or coastal in focus, like the FLAGS, their structure and bringing together of multi-sector stakeholders to represent different actors, uses and activities within a community, including delivery of the Local Development Strategy (LDS), is relevant to consider for lessons learned and successes. Future coastal community engagement should ensure that voices from across a community are heard within these LDS discussions. LAGs have had responsibility for management of the **LEADER** funding programmes selection of projects and allocation of funding across Wales. This funding pot, financed by Welsh Government and through the European Agricultural Fund for Rural Development, was devised to support local scale projects in rural communities, across a range of call themes<sup>51</sup> (e.g., knowledge transfer, enhancing competitiveness, restoring ecosystems and more).

**Local Nature Partnerships**<sup>52</sup> are another example of existing structures already in operation in Wales. There are 22 LNPs in operation across Wales, taking in coastal areas from Swansea to Pembrokeshire to Anglesey. The LNP Cymru network included LNP coordinators in all areas of Wales, undertaking a range of projects which seek to enhance community connection to their natural environment, while making space for nature. LNPs focus on nature recovery and engaging people and communities in nature<sup>53</sup>, while supporting societal well-being which align well with the goals of both the Wellbeing of Future Generations Act and the Environment Act. In addition, it is important to note that the LNPs offer free advice to communities interested in establishing nature-based projects and facilitate knowledge sharing and capacity building related to nature-based topics more generally. They, therefore, may provide a valuable model and lessons that can be drawn upon regarding successful community engagement and capacity building. When thinking specifically about coastal community capacity building, there may be potential for the LNPs to work with coastal stakeholders to support the development of integrated solutions for land and sea – for example, working with landowners or managers to address issues of water quality and pollution happening further downstream. Examples of this include work done through SEP's Litter Free Coast and Sea Somerset<sup>54</sup> project which seeks to address water quality issues by working with stakeholders and communities. Recently this has included engaging with partners representing areas further inland within the catchment to carry out community litter picks and other community projects in areas away from the coast.

Whatever the approach, facilitation of partnership working is evidently a core aspect of building capacity within coastal communities – and there are clearly opportunities to learn from what has gone before. One consideration for coastal community capacity building in Wales could be to have a programme of work which brings together the dual objectives of sustainable growth and nature recovery through a place-based approach which centres on facilitating engagement with coastal communities on a broad range of topics relevant to that area. While there are limitations to partnership working (e.g. coastal partnerships have no statutory decision-making powers, and neither is there a clear statutory approach to coastal management, although the Wales National Marine Plan and Wales Marine Area Statement provide a framework), and there is limited published evidence available on assessments of the impact of these networks and groups, it is apparent from the available literature that, with adequate financial and resource support, partnership working on a local or regional scale can deliver results that have social, economic, cultural and environmental benefits for coastal

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<sup>51</sup> [LEADER Guidance Notes \(gov.wales\)](https://gov.wales)

<sup>52</sup> [Wales Biodiversity Partnership - Local to You \(biodiversitywales.org.uk\)](https://biodiversitywales.org.uk)

<sup>53</sup> [Local Nature Partnerships Cymru - Home \(lnp.cymru\)](https://lnp.cymru)

<sup>54</sup> [Litter Free Coast and Sea | Somerset](https://litterfreecoastandsea.com)

## Marine Evidence Synthesis

communities (CPN, 2022; Kelly et al., 2012; Kelly, 2012). To maximise impact and likelihood of success, Kelly (2012) sets out a framework of evaluation for coastal partnership working, which should be further explored to underpin future coastal community capacity building and ensure that projects and initiatives can build on best practice and effectively monitor and evaluate impact in a way that can be applied across varying place, culture, and scale. Furthermore, to align with Welsh Government's commitment to the seven well-being goals, inclusivity, diversity and equality must be central to any future coastal community capacity building initiatives. Crucially, this should ensure that a diverse representation of coastal communities is included in future capacity building initiatives and should be part of any programme of monitoring and evaluation that accompanies future coastal community capacity building initiatives.

While there is clear evidence of a significant level of partnership working through a range of structures and models, there is less published evidence and literature of how effective these have been in Wales. Insights can be drawn from information available about projects led and current initiatives. However, one step towards coastal community capacity building would be to carry out an in-depth evaluation of the impact of the existing programmes and groups, such as the Coastal Partnerships or the LNPs, perhaps extending this assessment outside of Wales, to identify what has worked well, what hasn't been successful and where lessons can be learned for a future programme of effective capacity building for coastal communities in Wales.

### 3.2.2. Projects, initiatives and funding

Long-term, strategic funding is recognised as a challenge facing many project programmes, not just those relating to marine and coastal issues. Historically, funding has been short-term (e.g., 2 or 3 years of funding), with limitations on eligible activities or expenditure meaning that they may not always be delivering what is needed. This can be particularly challenging for activities associated with capacity building and project legacy. It should be noted that some of the issues relating to funding are being explored through another W-CASP programme of work on sustainable finance, which is exploring options for sustainable funding for marine initiatives (e.g., achieving marine net gain within biodiversity targets). However, given the importance to funding of coastal community capacity building initiatives, these issues are explored to some extent here.

Project funding challenges are by no means limited to Wales; the recent assessment of the delivery of the Coastal Community Fund in England highlights some key recommendations (Rees et al., 2022), which should be taken into consideration when developing future funding opportunities in Wales. The report indicates that there is a need to create funding which supports engaging with coastal communities that balances funds to support small- and large-scale projects which can address issues of varying scales, something which should be considered for any future funding programmes which relate to capacity building for Wales's coastal communities. The report also recommends that eligible activities within funding programmes should be expanded, including, for example, activities which relate to project promotion and awareness raising and impact evaluation, not only to ensure engagement during the lifetime of the project and project success, but also to ensure ongoing impact and project legacy. In the context of coastal communities, in particular, it may be useful to ensure project design includes identification of coastal champions or ambassadors who can ensure this ongoing legacy, working with delivery partners, but also perhaps the groups outlined above (e.g., coastal partnerships). Further, the report recommends that funding is provided to ensure long-term coordination of activities on a local scale, with multi-year funding options

## Marine Evidence Synthesis

available to ensure long-term planning and staff continuity. These challenges were also highlighted in the recent CPN report on a National Framework for Coastal Partnerships (CPN, 2022). While the funding impacts of EU Exit continue to be addressed, Welsh Government has been working to establish a replacement to the EMFF fund<sup>55</sup>; drawing on the findings from the Coastal Community Fund review (Rees et al., 2022), suggestions for a future funding programme can be made. Future funding should be designed in such a way as to ensure that any future funding programmes have a balance of funds to support projects which can address issues of varying scales across Wales's coastal communities to support some form of intervention that includes not only the fishing activity, but the whole supply chain.

Recent years have seen a growing interest in the opportunity of Payments for Ecosystem Services (PES) schemes as a way of funding activities and land/resource management that both supports sustainable growth, whilst also addressing environmental issues through place-based approaches (Reed et al., 2017; Perrot-Maitre, 2006). Schemes of this type are often based on a 'beneficiary pays' model – who benefits and who should pay will vary within each specific situation and for different sectors. For example, a PES scheme could comprise of a water company supporting a funding or subsidy scheme, which encourages farmers to make changes to their farming practices, reducing fertiliser use or planting buffer zones around their fields to reduce pollution within a river system and increase biodiversity, or to improve water quality across the whole catchment, including in the coastal region. Other potential examples could be local tourism companies collaborating to provide a PES scheme to protect a marine or coastal habitat which is important for attracting visitors to their local area. Waylen and Martin-Ortega (2018) found there to be growing appetite for schemes of this type across the UK, with an expectation (from 80% of respondents) that PES schemes would become more common. Benefits of schemes of this type were identified as the potential for identifying new funding opportunities, place-based approaches to local issues, delivery of benefits for multiple users, and raising awareness of the relationship between society and nature and the value of natural resources (Waylen and Martin-Ortega, 2018). In the case of coastal communities, PES schemes, therefore, offer an opportunity to identify sustainable finance mechanisms for coastal management and other initiatives, while potentially supporting sustainable growth of involved sectors and raising ocean literacy among communities. There is work already being done through Catchment Management Plans (e.g. the Llyn and Eryri Catchment). This includes mapping of issues facing both the catchment and coast, as well as identifying key stakeholders, collective objectives and goals and action required to address challenges<sup>56</sup>, which could provide the basis for PES schemes. However, further capacity building is needed to identify where PES schemes might be appropriate to address particular issues facing coastal communities, to design and deliver a successful PES scheme with meaningful collaboration from all stakeholders, and an improved understanding of who the users and beneficiaries might be.

Finally, there is increasing interest in the potential role of citizen science programmes, which can enhance ocean literacy and build coastal community capacity to be engaged in marine and coastal issues (Kelly et al., 2020; McKinley et al, 2017; Cigliano et al., 2015). Lessons could be drawn from successful examples from Wales, including the EU funded Capturing our Coast project,<sup>57</sup> which ran between 2015 and 2018 across the UK, training 2,800 volunteers and collecting data in 1800 locations on a wide range of marine and coastal species. Other initiatives from the global community include Project Seagrass, an environmental charity

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<sup>55</sup> [£1 million made available to support Wales' fishing industry | GOV.WALES](#)

<sup>56</sup> [Llyn and Eryri catchment summary 2016 \(cyfoethnaturiol.cymru\)](#)

<sup>57</sup> [CoCoast Brochure Web.pdf \(earthwatch.org.uk\)](#)

## Marine Evidence Synthesis

established in Wales to engage the wider community on issues relating to seagrass ecosystems, including through their Seagrass Spotter citizen science platform<sup>58</sup>.

### 3.2.4 Key findings

- Collaboration and partnership working are central to coastal community capacity building across a range of sectors and topics.
- While the Coastal Partnerships in Wales, and the wider UK, are considered to offer multiple benefits to coastal areas, there is limited published evidence of the impact and effectiveness of these groups. While the funding portfolio and longevity of both SEP and PCF indicates success, carrying out a robust evaluation of these initiatives, and other marine and coastal programmes, would further help to identify what has worked well and where lessons can be learned and perhaps applied in other areas across Wales.
- Only two coastal partnerships are currently active in Wales. This represents an opportunity for future coastal community capacity building initiatives to include a targeted effort to expand the existing Coastal Partnerships in Wales, building on the successes of SEP and PCF, and on the lessons learned from other Coastal Partnerships across England.
- There is a need to understand Wales's coastal communities, sectors and stakeholders. While the Coastal Directory produced in 2016 is a useful starting point, it is in need of updating. To deliver this, a mapping exercise, including a desk-based review of all organisations, projects and activities relating to the marine and coastal environment currently operating in Wales should be undertaken. This desk-based review should be supported by workshops to explore common issues facing these groups, where funding is obtained and where there might be opportunities for collaborative capacity building initiatives to be developed.
- Short term funding is a challenge - there is a need for future funding which supports small- and large-scale projects and expands eligible activities to include project promotion, awareness raising and legacy building.

### 3.3. What capacity building methods most effectively support collaboration and consideration of varying priorities and how can these be used to reduce conflict and support cooperation between coastal stakeholders across Wales?

Due to the complexity of coastal and marine spaces, with multiple users, multiple activities and varying scales of governance (including local, regional, national and international plans, policies and legislation), it is perhaps to be expected that conflicts will arise, and trade-offs must be considered. Conflict and tension within communities can result in some actors feeling disengaged from decisions, reducing social acceptability of certain management decisions (an MPA designation, for example), and can lead to decreased effectiveness and success of management resulting in negative consequences, for both communities and nature. To ensure that this risk of conflict is minimised and that the potential need for trade-offs is recognised as

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<sup>58</sup> [Seagrass-Watch | Global Seagrass Observing Network \(seagrasswatch.org\)](https://seagrasswatch.org)

## Marine Evidence Synthesis

early as possible, it is important that communities are actively engaged in coastal issues and that capacity to co-develop solutions to common challenges is supported and fostered.

While there is a growing body of work regarding how communities in Wales connect with and value the marine environment, this work is at an early stage – for example, the recent Defra and NRW ocean literacy surveys discussed earlier. There is a need therefore to build on this baseline so that effective methods of collaboration and deliberation about the various priorities of different user groups can be considered. For example, what is important for a community on Anglesey, will be different to what is important for a community in the Severn Estuary or on the Pembrokeshire coastline and what is important for one stakeholder or community member will perhaps be different or conflict with the needs or views of another within the same community. There is no one size fits all solution to coastal community engagement and capacity building for Wales – what is needed is a multi-tool approach, with tailored activities which responds to place specific needs and priorities, recognising the conflict and trade-offs that can be present within a community, while also responding to Wales-wide national priorities.

Embracing people-centred, participatory, and creative methodologies grounded in marine social sciences, arts and humanities work is one way in which our understanding of different perceptions and conflict within coastal communities can be further developed (McKinley et al., 2020; McKinley et al., 2022). As already discussed, there has been a growing recognition that there is a need to recognise diverse values and priorities within marine and coastal decision making – for instance, the economic value of a fishery can be relatively easily understood; however, the value of supporting industries relating to fishing (e.g. processing), or the value of fishing and related activities for place identity and community connections is less well understood and has historically been challenging to integrate into decision making (Acott et al., 2022; Urquhart and Acott, 2014).

The Defra and NRW ocean literacy surveys provide a much-needed starting point for understanding the different values which people and communities across Wales may assign to their coasts and seas (as explained above). However, to truly build coastal community capacity and understand where different priorities might lie, there is first a need to better understand the starting point and how this varies within different types of communities. Currently the data available has not yet been analysed to explore variation across different Welsh regions and communities. More in depth assessments are required to understand existing values, where there may be trade-offs and conflicts between different user groups and activities, and how these need to be addressed within marine and coastal management in a way that brings in coastal community voices and perspectives.

One methodology increasingly being adopted as a way of exploring new stories, insights and diverse values, is the **Community Voice Method**, which has been developed as a way of exploring sense of place, values and the connection between people and place, and was designed as a methodology to explore conflict and tensions within communities. It involves video interviews with a wide range of individuals representing different viewpoints and values relating to a particular topic, and then the showing of a collated film representing these diverse views alongside a community workshop during which conflicts and differing views can be addressed and explored. Community Voice Method, and other qualitative methodologies allow the complexities of relationships and values of the coast to be better explored. By providing a platform for multiple voices to be heard, can be used as a way of understanding the unequal distribution of benefits that might be obtained from the coast (Acott et al., 2022). There are limitations to this sort of approach, for example, stakeholder willingness to be recorded, for example in the Community Voice Method approach, can be a challenge, as outlined by

## Marine Evidence Synthesis

Ainsworth et al., (2019). However, while a relatively new, and a time and resource intensive, method of engaging with communities, this approach is being used by both research and practice communities. Examples include the recent work commissioned by Natural England in both Durham<sup>59</sup> and Portsmouth<sup>60</sup>, while the methodology was also used in the Valuing Nature Programme funded Wetland Life<sup>61</sup> project to explore conflict regarding wetland restoration and stakeholder perspectives on this. The approach is currently being utilised in the UKRI funded Integrating Diverse Values into UK Marine Management<sup>62</sup> project through their work in Chepstow, Monmouthshire to develop a better understanding of diverse community issues relating to water quality issues in the River Wye catchment and how this may be impacting users and ecosystems within the catchment. It is possible that insights gathered from these studies could be used to support project development in Wales.

In addition, there are a suite of innovative **participatory engagement** approaches (e.g., participatory mapping) which have been used with success to explore how communities place value on coastal resources, and where and how trade-offs or conflict need to be considered for different stakeholder groups. The use of these participatory methods has been shown to encourage more meaningful participation, foster feelings of empowerment and enhance the perceived legitimacy of a process by addressing some of the potential complex power dynamics which can be present in multi-stakeholder groups (Jentoft, 2017). If done well, they can provide a way of improving inclusivity of marine governance processes, such as marine spatial planning (Fletcher et al., 2013). Recent examples in the UK which could be drawn upon for future community capacity building work in Wales include the Defra Pioneer projects, which were established in 2016 in response to the UK Government's 25 Year Environment Plan for England. These projects set out to explore the implementation of a natural capital approach, taking account of the multiple stakeholders and users that may be benefiting from and using a particular environment. One of these included the marine pioneer project which was split across two sites, the North Devon Marine Biosphere and the Suffolk coast<sup>63</sup>. The projects embraced participatory approaches to engage communities on topics relating to saltmarsh restoration and community perception of ecosystem services and their value, in order to develop a natural capital risk and asset register. Community workshops, stakeholder focus groups and participatory mapping were all used to explore the complexities of various perspectives and explore the potential trade-offs which may occur as a result of ecosystem change (Burdon et al., 2019). In a recent paper, Burdon et al., (2022) build on this initial work from the Suffolk marine pioneer and set out a framework for effective and reflective participatory mapping with coastal communities and stakeholders (Figure 10).

Figure 10: Participatory Mapping Approach for coastal stakeholders (Burdon et al., 2022)

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<sup>59</sup> [\(65\) Living Coast: Community Voice, Durham Coast - YouTube](#)

<sup>60</sup> [\(65\) Living Coast: Community Voice, Portsmouth - YouTube](#)

<sup>61</sup> [WetlandLIFE - Home](#)

<sup>62</sup> [Integrating Diverse Values into Marine Management - Sustainable Management of Marine Resources \(smmr.org.uk\)](#)

<sup>63</sup> [Marine pioneer projects - GOV.UK \(www.gov.uk\)](#)



## Marine Evidence Synthesis

a situation or topic and develop problem solving through working through the challenges of the game – see for example the use of Minecraft as a way of enhancing awareness of climate change through the CCAT project<sup>65</sup>) approaches, embracing both analogue and digital platforms to cater for varying levels of digital literacy and engagement, is offering a valuable way of building participants' capacity to understand complex issues (through design and discussion of multiple future scenarios and their potential implications), as well as highlighting and addressing points of conflict and trade off (McKinley et al., 2021). One example of this could be the MSP Challenge game<sup>66</sup> which is an interactive simulation designed to help a range of actors and stakeholders to understand coastal and marine economies and to understand how this can be managed through the process of marine spatial planning. Finally, there is also a need to consider how to engage those not traditionally 'in the room' when discussing marine and coastal issues – future capacity building initiatives should seek to bring in views from across Wales's diverse coastal communities, including for example, Wales's urban coastal communities, such as Swansea, Cardiff and Newport, in addition to those areas perhaps more traditionally thought of when considering coastal areas, such as Pembrokeshire.

When considering conflict and the diverse views and uses, which may need to be balanced relating to coastal issues, ensuring that early and meaningful community engagement, and capacity building to facilitate that engagement, as a cornerstone of projects is crucial. While there are a range of methods and approaches (a selection of these is presented in Table 2), which could be adopted for future community capacity building initiatives, those mentioned in this report are by no means exhaustive of those options. Future projects should ensure ongoing evaluation and monitoring of projects so that the effectiveness and impact of the methods being used to reduce conflict, address and balance trade-offs and foster collaboration within and between coastal communities can be demonstrated.

Table 2: Examples of potential methods for conflict resolution, identification of trade-offs and community engagement

| <b>Potential methodologies for conflict resolution and community engagement</b> |
|---|
| Appreciative inquiry  |
| Asset based community development   |
| Participatory mapping   |
| Community Voice Method  |
| Deliberative workshops  |
| Facilitated focus groups and meetings   |
| Scenario development  |
| Stakeholder mapping and Stakeholder Network Analysis                            |
| Community consultations   |
| Open community events and activities  |

### 3.3.2. Key findings

- There is no one size fits all solution to coastal community engagement and capacity building for Wales – what is needed is a multi-tool approach, with tailored activities which responds to place specific needs and priorities, recognising the conflict and

<sup>65</sup> [CCAT Brochure - CCAT Project](#)

<sup>66</sup> [Home \(mspchallenge.info\)](http://mspchallenge.info)

## Marine Evidence Synthesis

trade-offs that can be present within a community, while also responding to Wales-wide national priorities.

- In order to identify and understand conflicts and trade-offs, there is first a need to understand the diverse values held by Welsh communities about the marine and coastal environment.
- Different communities will respond to different methods. Therefore, there is a need for future projects to explore and adopt a range of participatory methods (e.g., participatory mapping, community voice methods, stakeholder workshops) as a way of addressing potential conflicts in uses and values of the marine and coastal environment.
- The effectiveness of capacity building methods and approaches should be monitored and evaluated to demonstrate their impact on conflict resolution and collaboration within communities.

## 4. Summary of key findings and points for the future

Overall, this review reveals a number of key points, from the existing literature, which should be considered for future work on building coastal community capacity in Wales, which are presented below. These are not necessarily discussed in any order of priority; however, they should all be taken into consideration in planning of future initiatives.

### Coastal Community Development and Enhancing Ocean Literacy

- For coastal community capacity building initiatives to be successful, **there is a need to understand and map Wales's coastal communities** so that previously under-represented voices, and values, can be considered in the issues facing Wales's coasts and seas.
- Building capacity and fostering community engagement is resource and time intensive – **future funding should be allocated to building relationships and trust** between stakeholders.
- There are opportunities to **align coastal community capacity building initiatives with the ongoing work to develop and enhance ocean literacy across Wales**. Evidence from the Defra, NRW and Marine Scotland ocean literacy survey indicates that concern for the marine environment is high across Wales. However, more analysis of the data is needed to explore how views and perceptions vary with region and other demographic characteristics (e.g. age, gender, ethnicity, education level) and to consider how this can be used to provide insight into where capacity building is most needed.

### Working in Partnership

- To deliver the twin goals of Nature Recovery and Sustainable Growth, **working in collaboration, identifying opportunities for partnership and developing place-based visions and solutions** for the issues facing coastal communities across Wales will be crucial. No one organisation can achieve these goals alone, and mobilising

## Marine Evidence Synthesis

action that is adapted to the needs of communities in place requires careful collaboration with the people affected.

- Wales has an active network of organisations and groups involved in topics relating to its marine and coastal environment. While the funding and project portfolio, and longevity, of some of these groups, including the two Coastal Partnerships in Wales, is an indicator of success, there is little published evidence as to the impact and effectiveness of these groups. **There is a need for robust evaluation of existing processes and structures**, such as the Coastal Partnerships or the Local Nature Partnerships, to better understand the impact of these groups for both Sustainable Growth and Nature Recovery, and to identify where things have worked well and where improvements could be made for future coastal community capacity building. There are also lessons to be learned from existing or previous funding frameworks, such as the FLAGS i.e. adopting a place-based multi-stakeholder approach, to ensure that place specific issues can be addressed by a consortia with local knowledge and expertise, while the multi-stakeholder partnership ensures multiple voices and perspectives are included.
- While the 2016 Coastal Directory produced by Severn Estuary Partnership, Pembrokeshire Coastal Forum and Cardiff University is a useful resource – it is out of date. **Mapping of Wales’s coastal communities and stakeholders should be carried out to understand whose voices, perspectives and ideas are currently being included and whose are missing from the discussion.** This would help to ensure inclusive representation of all relevant stakeholders and communities, and also help to identify where capacity building initiatives are required to build and facilitate that representation and engagement. There is a clear need for an improved understanding of who Wales’s coastal communities and stakeholders are, taking in the breadth and diversity of Wales’s coastal regions, and recognising that this may and should include stakeholders and communities who are not directly positioned in a coastal area but nevertheless impact the coastal area and its environment. By adopting a catchment-to-coast approach to mapping stakeholders, a more comprehensive understanding of what is already happening, where success has been achieved and where lessons can be learned can be developed. With this in mind, it is suggested that **the Coastal Directory be updated as a first step of in building coastal capacity.** This will ensure that there is a better understanding of who is or isn’t represented currently, whose voices are missing or have historically been marginalised and what specific capacity building initiatives are needed in these communities to address these gaps.

## Diversification for Sustainable Coastal Communities

- The resilience of coastal communities and economies is under increasing pressure from a changing legislative landscape, increased costs, changes to market access and a lack of new entrants into maritime industries (e.g. fishing and marine renewable energy). With a view to fostering Sustainable Growth, **maritime clusters may provide a platform for collaboration between and across sectors**, allowing members to take advantage of cooperative approaches to training, skills development, and new market opportunities. Successful examples already exist in Wales, including Marine Energy Wales and the Wales Seafood Cluster. Future community capacity building should explore other opportunities to develop maritime clusters and networks as a way

## Marine Evidence Synthesis

of fostering collaboration and sustainable economic growth across supply chains and delivering value within coastal communities.

- In order to maximise the benefit of forming maritime clusters, **future funding should provide options for projects relating to a range of areas of Research and Development**, including capital investment for infrastructure and equipment, funding to support training, as well as funding to finance people's time to invest and develop a cluster so that it can achieve success.

### Future funding

- **Future funding for coastal community capacity building should support continuity and legacy of projects to ensure the anticipated outcomes of funded projects are achieved and not limited by the challenges of short-term funding programmes.** The practicalities of delivering long-term funding are challenging and mean that this may not always be possible. However, long-term funding structures are the ideal scenario and should be aimed for. Even within existing short-term funding programmes, continuity, legacy, longer term planning and capacity building can be supported through future funds being open to a wider range of eligible activities. This could include funding of relationship and stakeholder mapping or network analysis to support projects to get off the ground (through seed funding initiatives, for example). Funding to support continuation of activities and legacy work is also important, to provide improved continuity and maximise the impact of projects and collaborations, rather than see these come to an end when project funding has run out, which can mean a lack of resource to support staff funding or ongoing activities within coastal communities. Overall, the funding portfolio available must support projects of varying scales, and, where possible, there should be a long-term funding mechanism or in the very least long-term planning to ensure capacity building programmes can respond and adapt to changing needs within communities.

### Capacity Building Methods and Approaches to Collaboration

- **Being inclusive and creating a sense of collective engagement with marine and coastal issues facing communities is key.** Adopting methods of capacity building which actively engage all stakeholders in coastal communities, including those who have perhaps become disengaged or been marginalised in these discussions, and which encourage identification of potential areas of conflict and support collaborative working is required. Participatory methods, such as participatory mapping, community voice methods, asset-based inquiry and other methods which seek to identify community strengths, support conflict resolution and foster collaboration are key.
- There is **no one size fits all and there is a need to ensure that capacity building projects respond to community needs and can be developed in ways that build trust and social capital and foster new collaborations** between traditionally siloed sectors and topics, therefore better enabling integration and alignment of the twin goals of Nature Recovery and Sustainable Growth.

## Marine Evidence Synthesis

- **Capacity building methods and approaches should be monitored and evaluated** to demonstrate their impact and effectiveness on conflict resolution and collaboration within communities to provide a wider evidence base for shared learning across Wales.

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