



# RESIL COAST



## Coastal Agricultural Landscapes

EXPLORING THE DIVERSE PREFERENCES FOR SALTMARSH LIVESTOCK GRAZING

### *Workshop Summary Report*

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## EVENT SUMMARY AND OVERVIEW

Thank you for attending our workshop on October 18<sup>th</sup> in Cardiff. Through the workshop, we examined the benefits and challenges associated with livestock grazing of coastal saltmarshes as well as the many options and preferences associated with the use of this key environment for grazing. We hope that through the presentations and the discussions on the day, the event helped you to **develop a clearer understanding of how Welsh saltmarshes are used by the farming community, and to determine how multiple uses and values can be supported.**

We know that marshes are important for supporting agricultural heritage and the rural economy. They also provide attractive landscapes for recreation and tourism, deliver natural flood protection and carbon sequestration, and are an important habitat for wildlife, whilst also contributing to societal wellbeing. Managing these diverse landscapes so that they can continue to deliver these benefits to society is challenging, and never more so than in the current time of political change.



*"We need to keep farmers on the land. Welsh land must be managed by those who know it. We need to ensure our agriculture sector can be prosperous and resilient, whatever that may be. Our new policy should centre on Welsh land delivering public goods for all the people of Wales. Our system of support should be accessible to all. That means giving farmers the opportunity to continue to make a living from the land. We must not turn our backs on food production. Where sustainable production is viable, we must help our farmers compete in a global market" - Welsh Government (2018)*

To set the scene for the workshop, the event started with a series of short presentations (slides attached provided alongside this summary document). These covered a range of topics:

- Introducing salt marshes in Wales, their ecology, uses and ecosystem services and benefits (presentation from Martin Skov)
- Some information on saltmarsh management, existing evidence and knowledge gaps (presentation from Heather Lewis)
- An introduction to an NRW project which mapped saltmarsh ecosystem services in the Burry Inlet and the Three Rivers Estuary (presentation from Kate Davidson)
- Some preliminary results from work done through RESILCOAST to better understand current grazing practices on Welsh saltmarshes (Emma McKinley).

Following these initial presentations, the focus of the event was on three main discussions topics:

- Uses and trade-offs in Welsh saltmarshes
- Challenges and opportunities facing Welsh saltmarshes
- The future of Welsh saltmarshes and coastal grazing – where do we want to be and how do we get there?

A summary of the discussions is provided below. The data collected through this workshop will be used to feed into future work being done through the RESILCOAST project.

## DISCUSSION 1: USES AND TRADE-OFFS IN WELSH SALTMARSHES

This discussion covered two main questions:

### WHAT ARE THE PROS AND CONS OF COASTAL GRAZING IN SALTMARSHES?

In terms of the positives that can be associated with grazing activity in saltmarshes, initial analysis of the workshop data found there to be nine key themes from a total of 71 suggestions from delegates. The most commonly discussed benefit of coastal grazing was considered its role in **supporting and protecting biodiversity**, for example "*maintaining plant diversity leads to positive effect on other faunal diversity (e.g. wildfowl)*", and contributing to the **aesthetics of the natural landscape**. Further advantages were identified around protecting and maintaining **cultural identity and sense of place** through protection of unique farming practices, with one delegate stating that a benefit of grazing activity is "*retaining agricultural culture...– if we lose all the farmers we lose a lot of cultural identity*". As expected, **food production, and saltmarsh lamb** particularly, were mentioned regularly during this discussion, including the potential for locally produced food and effective marketing. Alongside the economic value through food production, the **value of the saltmarsh to the farmer** was discussed in terms of saltmarshes providing livestock with feed and low-cost grazing land during hard times. Finally, saltmarshes were recognised as having a role in **flood defence**, and there was a feeling that the benefits for land and vegetation management would in turn contribute to the coastal protection value of saltmarsh environments.

Delegates made 96 suggestions as to the potential negative implications of coastal grazing on saltmarshes, covering a much more diverse range of 20 different topics, including some more relevant to general saltmarsh use and management rather than purely linked to coastal grazing on saltmarsh environments. The most commonly mentioned topic was around **habitat degradation and negative impacts on biodiversity**, with attendees suggesting that there is "*not much benefit for plants and/ or invertebrates*". Linked to this was the mention of a risk of **overgrazing** and the potential damage that might cause to existing biodiversity, and the implications for protected site designations (e.g. Special Areas of Conservation). The potential impact on **water quality** as a result of agricultural run-off (including faeces), and nutrient enrichment resulting in **eutrophication** was also mentioned by attendees as being something that must be considered alongside grazing activity on saltmarshes. **Perceived risk and a sense of danger** related to saltmarshes was another topic mentioned regularly by delegates - there was a feeling that risk could come from a lack of public awareness of the tidal nature of saltmarshes, the unpredictability of the topography which could increase risk of accidents, and also a risk from close proximity to grazing livestock. **Other topics mentioned less frequently included:** impacting coastal protection capacity from saltmarshes; a complex management and funding framework; the challenge of balancing conservation with agricultural activity; changing public perceptions and raising public awareness, and the challenge of keeping farmers on Welsh saltmarshes to preserve and protect saltmarsh grazing as a way of life and part of Welsh farming cultural identity.



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## WHAT ARE THE TRADE-OFFS BETWEEN COASTAL GRAZING AND OTHER ECOSYSTEM SERVICES?

Each table discussed different trades offs – some of the more commonly discussed issues were predominantly associated with increased use/ improved access to saltmarshes. There was a feeling that a **lack of awareness and knowledge** about the saltmarsh environment, the physical processes that govern them (i.e. tidal change and the potential risk associated with that), and how they are used from an agriculture perspective could lead to a number of challenges if footfall was to increase. For example, delegates discussed the impact of potentially higher levels of footfall on **biodiversity** (i.e. trampling of vegetation and nests, disturbance to nesting birds and other fauna), as well as **an increased risk of harm being caused to livestock** as a result of dog attacks due to higher levels of dog walkers using the saltmarshes for recreational purposes.

It was also felt that increasing livestock grazing could have its own negative impacts on the saltmarsh – for example, deterioration in water quality as a result of higher stocking densities, trampling of nests/ wildlife through livestock, as well as an increased level of effort required from farmers to manage the livestock.



## DISCUSSION 2: CHALLENGES AND OPPORTUNITIES FACING WELSH SALTMARSHES

Recognising that there are a number of drivers influencing both challenges and opportunities, three key topics were identified as being of primary interest to the group – Brexit, climate change and wellbeing. A further discussion table was included to allow other topics to be raised by delegates. To ensure everyone had an opportunity to contribute to each topic, groups moved around the room to cover the four topics summarised below.

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### BREXIT

The overarching theme to come out of the Brexit discussions was centred around the challenges resulting from a current feeling of considerable uncertainty. Each group discussed a range of potential issues associated with the UK's departure from the UK including:

- Unknowns in terms of the market demand for sheep farming, including the suggestion that there may be a shift to increased dairy farming.
- Changes to habitat regulations, conservation and management and what that might mean for saltmarsh management.

- Uncertainty is making it hard to plan – financial planning, farm planning, short, medium and long-term plans. coupled with a need for greater diversification resulting in less farming activity on saltmarshes.
- Concerns that smaller farms will experience more challenges than larger farms.
- Loss of funding to provide subsidies to Welsh farming, cuts to funding that supports effective management, and loss of funding for research.

Despite the overarching concerns discussed by all four groups, there were some opportunities suggested. For example, one group discussed the potential benefits that could be derived from a well set out Public Goods Scheme or the development of an Outcomes based scheme to support management for both agriculture and other aspects of natural resource management. This could include bringing a new generation of farmers into the community or the potential for other ecosystem services (e.g. coastal protection, or carbon storage) to be the focus of funding. The final group discussed the possibility of Wales being able to develop a replacement for the current agri-environment schemes that might be more relevant to Welsh farms.

## WELLBEING

In this discussion, groups were encouraged to think about the recent Wellbeing of Future Generations (Wales) Act (2015) and the implications and/or challenges associated with the seven wellbeing goals on future management of Welsh saltmarshes. Delegates were encouraged to select the Welsh well-being goal they viewed as being the biggest challenge and the biggest opportunity (Figure 1). These discussions recognised that we are in changing times, in terms of the political landscapes, implications associated with climate change, as well as land use, and that this could represent both a challenge and an opportunity.



Figure 1: Wellbeing wheels used to support discussion on the implications of the Welsh wellbeing goals on saltmarsh management. The coloured dots indicate the selection of the Goal posing the biggest challenge and opportunity to saltmarsh management in Wales.

The overall consensus from this thematic discussion was that achieving all of the Welsh well-being goals could prove to be **challenging in the context of saltmarsh management**. As shown in Table 1, **Resilience** was the goal mentioned most frequently, as both a challenge and an opportunity. There was a feeling that resilience could cover a multitude of aspects related to saltmarsh management (e.g. climate change, flood defence, biodiversity), and could be used as a lens through which the various trade-offs could be better understood and managed for. While this was seen as an opportunity to raise public awareness of saltmarshes and their role in society, it was also seen as a challenge due to the complexity and difficulty of achieving resilient ecological systems. There was a feeling that there is still a lot of uncertainty about what resilience means and would look like on a landscape scale, and that this could be challenging from a saltmarsh management perspective. Thinking about resilience more broadly, further discussion highlighted this goal as one that could also include the economic and social resilience issues that might be facing Welsh saltmarsh grazers, particularly as the UK moves through the Brexit process. This was further emphasised through conversations about the need for sustainable agriculture – activity which was also linked to the **Equal Wales, Prosperous Wales and a Healthy Wales Goals** set out in the Wellbeing of Future Generations (Wales) Act (2015).

Group One		Group Two	
Opportunities	Challenges	Opportunities	Challenges
Equal Wales	Resilience / prosperity	Resilience	Cohesive communities
Equal Wales	Global responsibility	Health	Resilience
Resilience / prosperity	Everything	Resilience	Resilience
Resilience	Prosperity	Resilience	Resilience
Equal/health	Health	Resilience/health	Resilience
Health	Prosperity		
Group Three		Group Four	
Opportunities	Challenges	Opportunities	Challenges
Global responsibility	Equal Wales	A globally responsible Wales	Resilience
Health	Equal Wales	A globally responsible Wales	Resilience
Cohesive communities, global responsibility and health (mainly Health)	Prosperous	Resilience, overlapping with prosperity and health	Resilience
Culture	Resilience	Resilience	Resilience
Global responsibility	Resilience	Resilience	Resilience
Resilience / prosperity	Resilience		

**Table 1: Individual responses from each group regarding the opportunities and challenges for saltmarshes related to the Welsh well-being goals. This table illustrates the similarity and differences between individual responses, as well as the goals perceived as being both challenges and opportunities by workshop attendees.**

There was a feeling within all four groups that there was **a need for better understanding** of what the well-being goals and their aims really mean for saltmarshes in Wales, and how they could be implemented on the ground for managing trade-offs in saltmarsh use and management. One delegate suggested that the '**Globally responsible Wales**' goal lent itself to that issue, as this would be a Wales that '*values its saltmarshes, and makes sure they are used, maintained and expanded where appropriate*'. Additional discussions suggested that

protecting the biodiversity and landscape value associated with saltmarshes in Wales through balancing grazing with conservation activity could be aligned with the global responsibility implied in this Goal.

Although connected to resilience in some of the conversations, **'A Healthy Wales'** was only specifically mentioned by a small number of delegates. However, despite this, it was considered to cover some important aspects of 'well-being' and that the goals around achieving a 'healthy' Wales will become increasingly important in the future, through NHS green space initiatives etc. Similar conversations were had around achieving the ambitions set out by the **'Equal Wales' Goal** with delegates discussing **the challenge of relating this particular goal** to saltmarsh management, before agreeing that this goal could be used **a mechanism to promote the cultural heritage** aspects of saltmarsh grazing.

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## CLIMATE CHANGE

The key challenges for saltmarshes relating to climate change were mainly linked to the unpredictability of climate change, the potential changes in weather and climate patterns and how this could influence how farmers can use the marsh. There were concerns that the marsh may become less accessible / more dangerous due to increased storms or flooding leading to abandonment of saltmarsh grazing. Changes in farming practices were discussed in a number of ways – for example, delegates mentioned the potential for increased frequency of drought conditions in Wales, suggesting that saltmarshes may actually cope better than other grazing land and could lend themselves to alternative farming practices, including raising 'saltmarsh hay', and resulting in farmers relying more on saltmarshes than their drier inland counterparts.

Impacts on biodiversity including vegetation communities, tolerance of existing saltmarsh species, potential changes to biodiversity composition and loss of adjacent coastal fringe habitats (i.e. sand dunes) because of climate change were all mentioned during this discussion. Delegates discussed potential impacts on migratory species, with a feeling that this could change the ecological value of certain sites, which could result in necessary changes in management and/ or an opportunity for amending protected site and species designations to account for these ecological shifts.

Further challenges around coastal management, and in particular, identifying appropriate sites for habitat creation and managed realignment were also discussed. There were particular concerns regarding the financial changes that could be associated with managed realignment sites (e.g. loss of value of property or land), as well as the potential loss of available land for grazing further inland, which could have a direct impact on coastal agriculture. Counter to this, there was also a view that in some places, land behind the marsh might decrease in value (as a result of planned managed realignment schemes, for example) and could potentially become part of a saltmarsh habitat creation scheme.





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## ADDITIONAL TOPICS

In addition to the challenges and opportunities highlighted in the three thematic discussions, there were a number of further topics brought up by delegates. Through this discussion, the challenges facing the farming community more broadly were discussed in relation to saltmarshes in Wales. There was a feeling that there is a risk of an overall loss of families farming, particularly those that farm the commons (e.g. on the Gower). This could in turn lead to a disconnection with the saltmarsh environment and loss of knowledge and ownership of saltmarsh grazing practices. This is compounded by a call for increased diversification among the farming community, which is resulting in fewer people taking up their grazing rights or being able to invest time in to saltmarsh grazing would (i.e. to move livestock). A call for outcome orientated farming, improved planning legislation and the role of compensation schemes (both from a farming and conservation perspective) were suggested as potential opportunities.

Additionally, increasing access was considered to have both positive and negative implications, with some delegates concerned that access can lead to inappropriate use of the saltmarsh, disturbances to biodiversity, including nesting birds. Conversely, however, it was also suggested that more could be done to raise awareness of saltmarshes as a valuable and productive natural landscape, through encouraging recreation and tourism in these landscapes. It was suggested that saltmarshes could be appreciated 'at a distance', through provision of interpretation boards, web cams, guided walks, coracles, and through engaging with citizen science programmes to raise awareness and knowledge about saltmarshes and the services they provide. The importance of improving understanding of the value of saltmarshes to people through targeted messaging and promoting 'local values' was also mentioned during this discussion.

Finally, three of the groups discussed the implications of marine renewable energy developments on sediment dynamics and processes, which could influence stability of the saltmarshes. There was a feeling that there is little known about the potential impacts of marine renewable energy installations on saltmarsh (and other coastal fringe habitats) – with this identified as a key opportunity for more research. It was also suggested that more **overlap between terrestrial and marine planning** is needed to allow for more effective management and mitigation of impacts on saltmarsh environments.

## DISCUSSION 3: THE FUTURE FOR WELSH SALTMARSHES AND COASTAL GRAZING – WHERE DO WE WANT TO BE AND HOW DO WE GET THERE?

The final discussion of the day centred on identifying possible solutions and opportunities that could be applied to the management of grazing on saltmarshes, and possible trade-offs between activities, users and ecosystem services provided by saltmarsh environments. Generally, there was consensus that **mixed activity** on Welsh saltmarshes is a positive thing. There was an overarching feeling that **public awareness and understanding of saltmarshes**, and the benefits that they provide to society, should be improved. The conversation included the suggestion that encouraging public appreciation, thereby enhancing public awareness, should be done in ways that do not increase footfall on the saltmarshes – for example, making use of technology (i.e. webcams or drone footage), or by having visitor centres on the edge of marsh so that visitors/ the wider public can **appreciate saltmarsh environments on a landscape scale**. It was also suggested that activities could also focus on **raising farmers' awareness of the potential opportunities of saltmarsh grazing**. For example, Agricultural Colleges could include material on the benefit of farming saltmarsh land and its cultural heritage within Wales.

With regard to the **farming activity on saltmarshes**, delegates recognised that we are in changing times, and that future subsidy schemes may be an opportunity for saltmarsh grazers. As the UK, and Wales more specifically, continues to move through the EU Exit process, there could be opportunities to feed into the

various schemes currently being discussed (e.g. outcome-based schemes, public money for public goods etc.), providing financial support and stability for farmers, but also recognising the other ecosystem benefits obtained from saltmarshes. Delegates felt that agri-environmental schemes needed to be better promoted, and should include **clear incentives** that encourage farmers' committed involvement. The possibility of establishing a range of **Payments for Ecosystem Services** schemes as an incentive for implementing specific management measures related to saltmarsh environments was also discussed.

There was a feeling that more could be done to raise the profile and understanding of the **Shoreline Management Plans (SMPs) for Wales** and the role they currently, or, indeed, could play in future **coastal management decisions**. Delegates felt there could be an opportunity to restructure SMPs as statutory policies to lend them more weight. Associated with coastal management, as we continue to deal with the implications of ongoing climate change, there was also discussion around the need to address the unpredictable nature of these impacts through forward thinking planning for land-management and implementing the SMP policy options.



## SUMMARY AND ONGOING WORK

The workshop stimulated an interesting and diverse discussion around the benefits and challenges associated with current and future grazing, and wider agricultural use, of saltmarshes in Wales. There was a strong feeling that grazing (from both domestic livestock and wild species) on saltmarshes brought a number of benefits, including being key to maintaining biodiversity of flora and fauna, contributing to the attractiveness of the landscape and playing a role in Welsh cultural heritage. Alongside this were numerous challenges, both for grazing now and in the future. Central themes included concerns around the uncertainty of Brexit and the potential economic implications that might have for Welsh farmers, including loss of subsidies and changes to current market and trade opportunities. Overall, delegates suggested a need to raise awareness of the value of saltmarshes, both as a natural landscape and ecosystem, as well as an important agricultural resource.

In terms of ongoing work, the outputs of the interviews and mapping research (presented by Emma McKinley and Rachel Harvey) are currently undergoing further analysis, including efforts to sense check the data alongside other grazing related monitoring data.

**Many thanks again for attending the workshop and for your interest in the RESILCOAST project's work on coastal grazing research. If you have any comments or thoughts on the work, or have any questions, please email Emma McKinley ([mckinleye1@cardiff.ac.uk](mailto:mckinleye1@cardiff.ac.uk)).**

## ACKNOWLEDGEMENTS

We would like to acknowledge the financial support provided by the Welsh Government and Higher Education Funding Council for Wales through the Sêr Cymru National Research Network for Low Carbon, Energy and Environment for the organisation and running of this workshop. We would also like to thank the facilitation team (Meghan Alexander, Jordi Pages, Rachel Harvey and Erin Roberts) for their support at the workshop.