

Shellfish Farming Asset Profile

1. Context

Crown Estate Scotland manages property – including buildings, land, coastline and seabed – on behalf of the Scottish people.

We work in a way that:

- Generates prosperity and value for all of Scotland;
- Supports the growth of sustainable business and industry in Scottish seas and on the coast;
- Makes places better for those who live, work and visit there;
- Promotes sustainable ways of producing energy, food, and other products; and
- Creates opportunities for people to use and benefit from the Scottish Crown Estate.

The Scottish Crown Estate Act 2019 requires us to manage the assets in a way that is likely to contribute to the promotion of improvement of economic development, regeneration, social wellbeing and environmental wellbeing. To do this, we need to understand the wider value delivered by the assets and our management activities.



Asset profiles have been developed for the Estate's 21 asset classes. The profiles include information on financial returns, the public benefits delivered through our management activities, and our view of the opportunities for wider value creation.

The analysis has been undertaken in-house, using qualitative assessment and expert judgment.

2. Asset summary

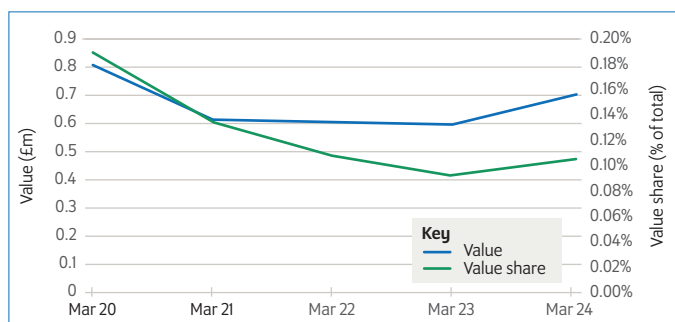
Shellfish farming is mainly the production of mussels and Pacific oysters and is one of Scotland's most sustainable industries. As a sector it boosts economy and employment, particularly in coastal locations where other job opportunities are scarce.

Shellfish farming operations require a Crown Estate Scotland lease. However, we are not a regulator and have no statutory function in relation to the industry. Planning consent is issued by local authorities and a marine licence is issued from Marine Scotland. We currently lease sites to fish farm operators to grow shellfish in Scottish waters.

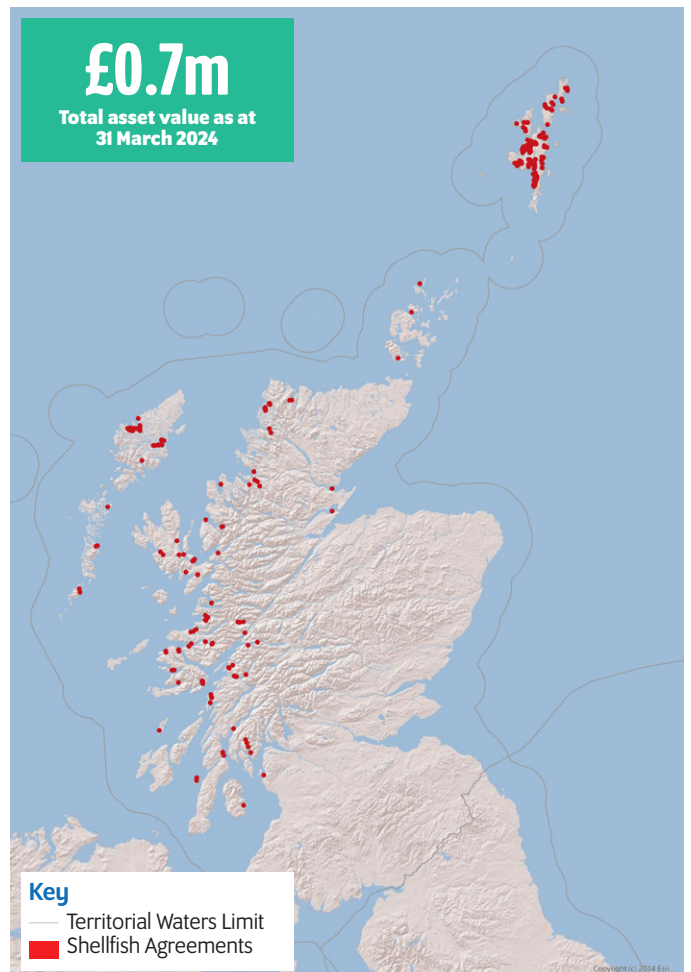
Asset and financial information

Asset information	Value
No of agreements	282
Value (March 2024)	£0.7m
Value share (% of total Estate value, March 2024)	0.11

Shellfish farming – change in value and value share over time

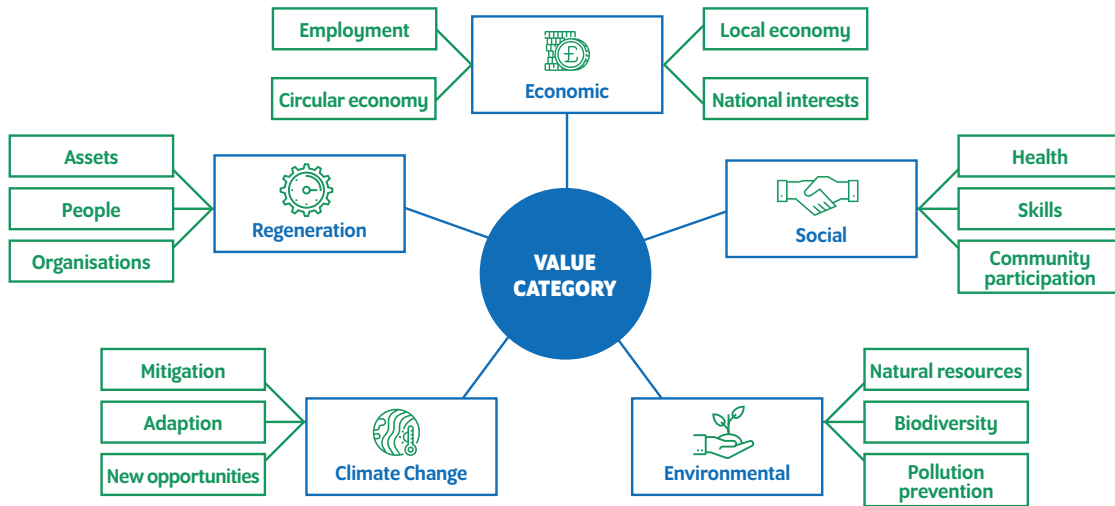


Shellfish asset map



Map correct as at September 2024. Under the Open Government Licence, we give free access to our open datasets and map which can be found on our [Spatial Data Hub](#) which gives access to view and download spatial data, PDF maps for download, and our [interactive map](#).

3. Understanding Value



Five value categories have been identified:

- **Economic;**
- **Social;**
- **Environmental;**
- **Climate Change; and**
- **Regeneration.**

Each value category has a set of three or four indicators. The indicators are relevant for all Scottish Crown Estate asset classes and also align with Scotland's National Performance Framework and the UN Sustainable Development Goals.

Measures of success

Economic

Employment – jobs created or safeguarded

Local economy – local businesses are active in the supply chain and provide local employment

National interests – benefiting Scotland's national economy / showing leadership

Circular economy – increasing efficiency / reducing waste in processes and products

Social

Health – reflects / promotes good health at local or national level

Skills – stakeholders gain valuable skills

Community participation – community is an active stakeholder and participant

Environmental

Natural resources – resources used / maintained in a sustainable way

Biodiversity – biodiversity is protected/strengthened

Pollution prevention – pollution is decreased / not increased

Climate change

Mitigation – low or zero emissions

Adaptation – actions increase resilience / reduce risk

New opportunities – new, low or Net Zero emissions activities / businesses/products pursued

Regeneration

Assets – positive impacts on associated assets

People – people are enabled or empowered

Organisations – activities involve collaboration with other organisations

Next steps

The Value Project started in 2019 as a direct response to this need to define the wider value of CES's activities.

In 2023, with the help of Savills Earth we completed development of our new Value Reporting Framework (VRF). This framework will support CES to shape data gathering to inform non-financial metrics and will help to inform our future decision-making, reporting, and monitoring processes.

The VRF seeks to measure the value created through all of CES's activities, producing quantitative and qualitative data for investment case decision making and annual reporting.

To achieve this a systematic process for measuring value was developed, in which our five wider value categories – climate change, social, economic, environmental and regeneration – were individually assigned a specific value indicator, with each indicator directly tied to its own value creation metric.

We have now incorporated indicators relating to employment, investment, and social cost of carbon into our annual reporting and further indicators will be added going forwards.

4. Potential for Wider Value

The diagrams below demonstrate the wider value currently generated by the asset class as a whole and indicate where we consider there is potential to deliver increased wider value. This is influenced by a range of factors including the inherent value of the assets, tenant activity, regulator activity and other external factors. For shellfish, key areas identified with potential for increased wider value include:

- **Economic** – in relation to local economy, expansion of the industry in coastal areas can support economic resilience and diversity.
- **Environment** – shellfish improve water quality and clarity by removing excess nutrients, organic material and bacteria; shellfish beds can provide critical ecosystem functions.

Opportunities

- Co-location of shellfish with seaweed farming offers carbon mitigation and potential offsetting market;
- Co-location of shellfish with offshore wind offers economic opportunities;
- New products from shellfish increase value / demand, particularly in home markets;
- Cost of international seafood with rising transport costs heightens demand for Scottish shellfish;
- Societal demand for climate friendly low carbon diets; and
- New markets for ecosystem services.

Threats

- Rising sea temperatures make Scottish waters less suitable for some shellfish;
- Invasive non-indigenous species impact on native Scottish shellfish;
- Poor profitability constrains necessary investment to grow industry;
- Increasing biotoxin threats result from climate change; and
- Poor water quality increases health issues for shellfish consumption.



This full value potential is indicated by the blue line. The actual average performance of the assets as currently managed is shown by the orange line. The opportunity for delivering enhanced value is the stretch between the orange line and the blue line.

Where potential and actual performance are the same the orange line will hide the blue line beneath it. No weighting has been applied to any indicator.

5. Benefits delivered by Crown Estate Scotland

Our 2020-2026 Corporate Plan sets out our four roles:

Investor

Investing in, for example, property development, as well as building external partnerships and supporting staff.

Asset Manager

Careful management of leases and agreements, as well as direct management of forestry and mountain bike trails.

Co-ordinator

Supporting other Scottish Crown Estate managers by, for example, coordinating spatial information.

Enabler

Empowering others by supporting local plans and projects, providing access to property and helping address barriers to sector growth.

For shellfish, some examples of our activities include:

Investor

- We have established a new Directorate focusing on Aquaculture and Ecosystem Services to lead on this work.

Asset Manager

- Manage lease terms appropriately to generate revenue without overburdening the sector.
- We completed a [Root & Branch review](#) of aquaculture leasing in January 2022. The revised terms are being introduced to encourage and allow tenants to demonstrate stewardship of the marine environment through the reporting on the management of plastic used on the leased seabed area. First reports were submitted in January 2024.

Enabler

- We published a [report on alternative markets](#) for farmed Scottish Shellfish and associated requirements for the industry to identify potential opportunities for growth.
- We sponsor a Brand Ambassador post at the Scottish Shellfish Marketing Group which will support the report on alternative markets.
- We conducted [an interactions project](#) which identified opportunities for improved coexistence with capture fisheries and restorative aquaculture.

The table below presents our assessment of the significance of the benefits that we currently deliver through these four roles. Our Corporate Plan sets out actions against these four roles. Over time, we expect the significance of benefits to increase as considerations regarding wider value are embedded into decision making.

SHELLFISH	Investor	Asset manager	Enabler	Coordinator
Economic				
Employment		High	High	
Local economy		Medium	Medium	
National interests		Low	Medium	
Circular economy		Low	Low	
Social				
Health				
Skills				
Community participation		Low	Low	
Environmental				
Natural resources		High	High	
Biodiversity		High	High	
Pollution prevention		Low	Low	
Climate change				
Mitigation		Low	Low	
Adaptation			Low	
New opportunities		Low	Low	
Regeneration				
Assets		Low	Low	
People		High	High	
Organisations		High	High	

Key

- Inactive
- Low
- Medium
- High

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