

Vision for Sustainable Aquaculture

Julien Lake

Marine Economy and Communities



Scottish Government
Riaghaltas na h-Alba



Vision for Sustainable Aquaculture

- Published in July 2023 after lengthy research and dialogue with stakeholders.
- It is a Vision - not a strategy but rather a view of what the sector will look like in 2045.
- The Vision sets out the Scottish Government's long-term aspirations for the finfish, shellfish and seaweed farming sectors, and the wider aquaculture supply chain.
- **The Scottish Government supports the development of a sustainable aquaculture sector, operating within environmental limits, and we recognise the considerable social and economic benefits the sector delivers today, and can deliver in the future.**

Context for the Vision

- Aquaculture is an important industry for Scotland, helping to sustain economies in our coastal and island communities.
- Drivers for the Vision:
 - Recognise there are contentious issues
 - Parliamentary reports
 - Prof Grigg's review of aquaculture consenting
 - State SG's position on aquaculture – not done since 2011
 - Support the development of future policy and work streams

Encapsulates SG's thinking on aquaculture and the anticipated direction of travel.



Guiding principles

- Set out in the document.
- Development of the Vision was steered by the Blue Economy Vision, which in turn links the Vision for Sustainable Aquaculture to Scotland's National Performance Framework Outcomes and UN Sustainable Development Goals.
- The Vision also reflects the five guiding principles on the environment due to enter into force later this year.
- There are a range of SG policies and strategies which have also informed development of the Vision, including but not limited to:
 - Scottish Biodiversity Strategy
 - Scottish Wild Salmon Strategy
 - Climate Change Plan
 - National Planning Framework 4
 - Farmed Fish Health Framework



A nine-point Vision to 2045

Its produce makes a significant contribution to Scotland's reputation for premium food and drink-people at home and abroad choose our aquaculture products because they are high quality, healthy foods, farmed under strong environmental stewardship



Our communities are supported through the provision of highly skilled employment opportunities, access to healthy local foods and other lasting benefits



Its environmental impact is within acceptable limits, with continual progress to minimise that impact through innovation, research and development



The aquaculture sector collaborates with other stakeholders to protect and restore biodiversity in the freshwater and marine environment



High standards for farmed animal health and welfare are a priority, maintaining Scotland's high health status and declared freedom from listed fish and shellfish diseases



Development happens in the right places, underpinned by an effective and efficient regulatory framework informed by the best available science and evidence



The sector is leading the way in reaching net zero and adapting to the challenges arising from climate change



Continual innovation facilitates opportunities for a highly resource efficient and productive industry to responsibly maximise value from the production process



The sector is flourishing, attracting investment and delivering significant economic benefit to Scotland through domestic and international trade and through its supply chain



Progress towards each component is supported by 50 outcomes relating to six themes listed below



5.1 Spatial Planning & Consenting



5.2 Environment & Biodiversity



5.3 Climate Change & Circular Economy



5.4 Health & Welfare



5.5 Community



5.6 Productivity, Supply Chain & Infrastructure

Vision enablers: Innovation & Regulation

Innovation

- Recognising that new technology and approaches will be crucial in the future
- An effective innovation process with collaboration and multi-disciplinary research will be essential
- We must address barriers to upscaling of new approaches and technologies
- Must foster cooperation between Scotland and international partners to enable new innovations to be adopted in Scotland

Regulation

- Effective and efficient regulation, informed by the best available science and evidence is a priority
- Continually review standards within the context of the best available science and evidence, to ensure regulation remains proportionate and consistent
- Information on aquaculture regulatory performance and requirements will be clear and accessible

Spatial Planning and Consenting



The marine and freshwater spatial planning and consenting system will be streamlined and deliver on Scottish Government's environment, economic and social objectives. The system will support a sustainable, diverse and prosperous aquaculture sector where cumulative risk and impacts are managed.

- **improving spatial planning tools** at national, regional and local level, and improving understanding and **effective management of cumulative risk and impacts**
- **making efficient use of Scotland's marine resource, encouraging the redevelopment of farms** where there is no planned production into alternative forms of aquaculture, other marine sector development, or returning the farm site to the wild

Environment and Biodiversity



The aquaculture sector will continually work to minimise negative environmental impacts and collaborate with other stakeholders to protect and restore Scotland's biodiversity in the freshwater and marine environment.

Aquaculture will play its part in Scotland halting biodiversity loss by 2030, and restoring and regenerating biodiversity by 2045

- **accelerating the adoption of approaches** which minimise, reduce or remove the discharge of medicine residues and increase the use of effective non-medicinal treatments, waste recovery and preventative measures
- further **exploring the potential of shellfish and seaweed aquaculture as a means of providing beneficial environmental services**, including biodiversity restoration, carbon sequestration and nutrient recycling

Climate Change and Circular Economy



Understanding, mitigating and adapting to climate change impacts is essential for the future success of the sector. Aquaculture will play its part in Scotland achieving net zero emissions by 2045 and transitioning to a zero waste and circular economy

- **delivering emissions reductions** in line with our climate targets, **ensuring resilience plans are in place** and the risks of a changing environment are understood, enabling adaptation to challenges such as water scarcity, warming seas, storms and fish health issues
- partnering with innovators to **explore further opportunities for the best use of aquaculture by-products**, including processing waste, organic waste, mortalities and harvested cleaner fish

Health and Welfare



Improving aquaculture health and welfare is an ethical responsibility and a priority. Continuing ongoing work by businesses, government and researchers will lead to enhanced health, welfare, economic and environmental performance.

- improving health and welfare and **reducing cumulative mortalities** over the finfish production cycle to the lowest possible levels
- **increasing adoption of new and innovative technologies** which achieve both positive environmental and health and welfare outcomes, including exploring the potential use of semi and closed containment systems

Community



Communities which host aquaculture or supply chain businesses will be engaged in the sector's development, share in its success and be supported through a range of lasting benefits, including the provision of employment opportunities. Development of the sector will be underpinned by aquaculture businesses enjoying widespread and enduring social licence.

- protecting and improving the ability of, and **opportunity for communities to meaningfully contribute to aquaculture planning and consenting**
- working with and supporting local authorities to **maximise the opportunities and benefits** that are available to communities as a result of the presence of aquaculture

Productivity, Supply Chain and Infrastructure



A renewed national focus on innovation, supply chain and infrastructure development will support increased productivity across the sector and the growth of Scottish businesses contributing to Scotland's Wellbeing Economy

- enabling the further development of an innovative and competitive supply chain which strengthens Scottish options in all areas of aquaculture procurement
- connecting businesses with educators and communities to raise the profile of aquaculture careers and equip more people with the skills needed to work in the modern sector
- identifying opportunities to increase market value of shellfish and seaweed production

Achieving the Vision: Selected outcomes



Ensuring the consenting regime is efficient, effective and transparent with alignment between all regulatory processes, and delivers on national and local policy objectives



accelerating the adoption of approaches which **minimise, reduce or remove the discharge of medicine residues** and increase the use of effective non-medicinal treatments, waste recovery and preventative measures



delivering emissions reductions in line with our climate targets, **ensuring resilience plans are in place and the risks of a changing environment are understood**, enabling adaptation to challenges such as water scarcity, warming seas, storms and fish health issues



improving health and welfare and **reducing cumulative mortalities over the finfish production cycle** to the lowest possible levels



working with and supporting local authorities to **maximise the opportunities and benefits that are available to communities** as a result of the presence of aquaculture



building resilience by **increasing the domestic supply** of fish ova, shellfish spat and seaweed seed

Realising the Vision and next steps

- Delivering the Vision needs collaboration and openness from all stakeholders. Some of the Vision's outcomes are for Scottish Government to deliver while others will require our working in close partnership and collaboration with stakeholders. There are some outcomes that will require leadership from others.
- As a priority, the Scottish Government will make further progress through the review of aquaculture consenting, with the established Consenting Task Group working to enable a more streamlined aquaculture consenting process.

Realising the Vision and next steps

- We will consider how we can support communities and stakeholders to realise the Vision as it relates to community benefit and participation.
- Ongoing policy work includes a range of projects related to animal health and welfare and supporting SEPA as they work on the development of a new framework for sea lice management.
- We remain committed to working with the sector to reduce the risk that fish escape from fish farms, including revision of the Scottish Technical Standard for the Containment of Finfish Aquaculture as a priority.

Contact

<https://www.gov.scot/publications/vision-sustainable-aquaculture/>

Julien.lake@gov.scot

Head of Aquaculture Vision, Marine Directorate