

TOOLBOX AQUACULTURE

Guidance for Aquaculture Licences and Permits



Norsk institutt for vannforskning



Marine Institute
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Aquaculture
Stewardship
Council



Tools for Assessment and Planning of Aquaculture Sustainability

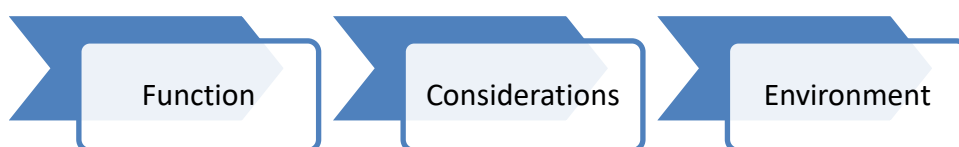


The Aquaculture Licence

The key tool for regulation of the aquaculture sector is through the Aquaculture Licence and the consenting process. An aquaculture licence, or proxy for such, is generally required for a person to engage in aquaculture activities, and the licence will detail the terms placed upon the individual regarding the activity. Many of the structures of licensing and the aquaculture licence vary across jurisdictions.

This guidance tool contains a structure based on best practice to utilise when using the Aquaculture licence to regulate the industry. Examples of best practice in use are detailed. Guidance is provided on:

- Functions of a licence
- Key areas to consider for production licences:
 - Licence term
 - Flexibility/ adaptability and design
 - Number of licences
 - Legalisation regarding the aquaculture licence
- Environmental monitoring and its role in aquaculture licensing



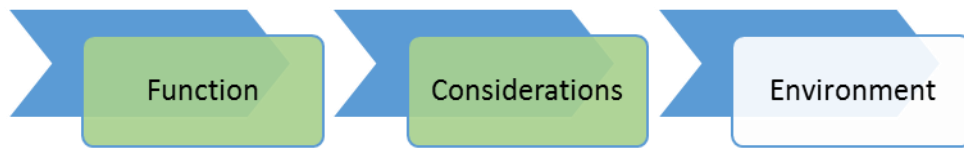
Functions of a licence

The key functions of a licence are to:

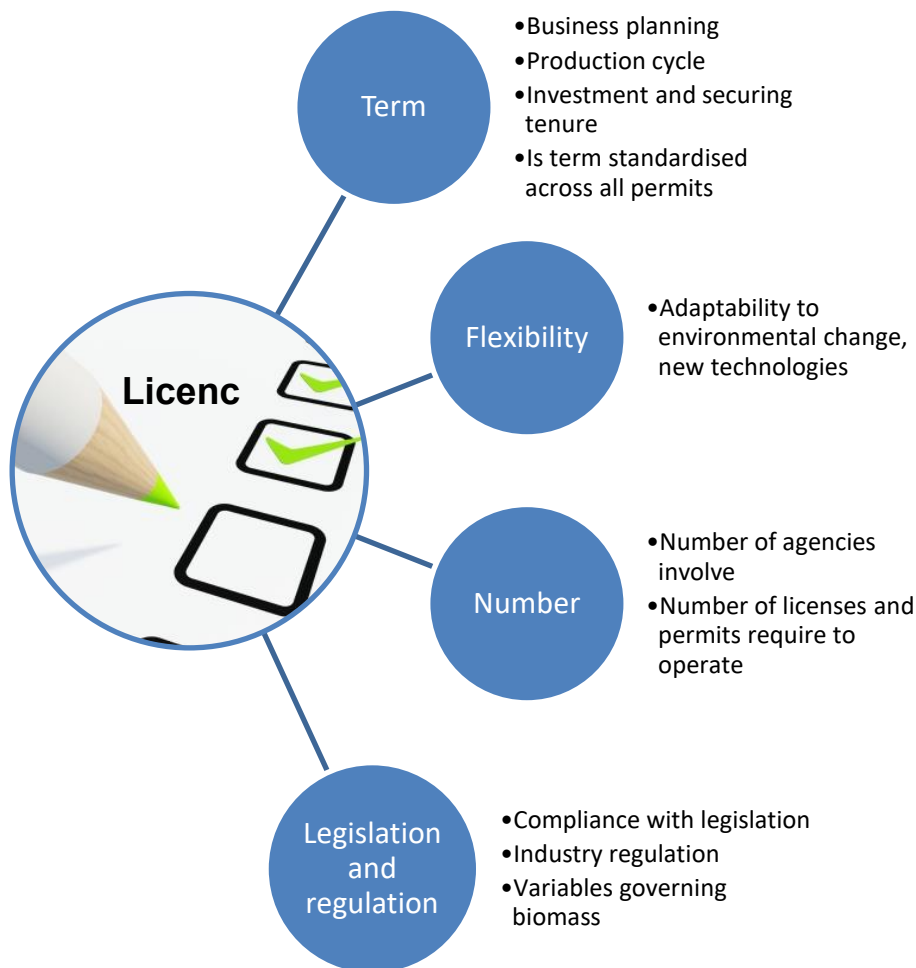
- Define the activity and methodology that is permitted.
- Define the location within which the activity is permitted.
- Define the period for which an aquaculture activity can be conducted.
- Define the review, alteration, amendment and ownership processes regarding the licence.
- Define the parameters within which an activity is permitted, and the necessary monitoring that is required to confirm these.
- Detail the limitations on quantities to be produced.
- Detail terms and conditions to be places on activities.
- Detail fees relating to holding the licence.



Key areas to consider for production licences



Regarding the licence for production there is a need to look at the *term* of the licence and its appropriateness to the venture being carried out; to look at the *flexibility* of the licence with respect to the dynamics of the ecosystem the venture operates in; and look at the *number* of differing licences, permits and agencies involved and the *legislation and regulation* governing production under a licence.



Licence term

The validity term of an aquaculture licence must be of sufficient length to respect culturing methodologies, to allow for business planning, and to ensure security of tenure.

There are many demonstrable benefits of longer licensing. Variables which are affected by the term of a licence include:

- The economic planning of the producer
- The security of tenure for the business
- The business planning and stability
- The ability to secure investment
- The job stability and career progression of employees
- The ability to plan production cycle, particularly for slower growing species
- The ability to raise investment, capital, and secure grant aid (particularly towards the 'end' of the licenced period)
- The long-term commitment of the producer to the site.

As minimum standard, member states should:

- Review the validity of permits association with aquaculture licensing, in light of the variables listed
- Create a licence term, sufficient to facilitate adequate production cycles/methodology to allow business planning and security of tenure and returns to the investor
- Where multiple permits and licences are required, consider the requirements for each with a view to integrating functionality to fewer permits
- Look to standardise the validity of the permits, to synchronise the renewal phases.

Nations that have reviewed their consenting processes are in support of longer licensing terms. A review of the Irish Aquaculture Licensing process, in 2017, made a recommendation for a 20 year licence term. In Scotland the duration of individual licences and permits are to be aligned and the period increased to 10 years. In some jurisdictions perpetual licences are granted, subject to on-going operator compliance with environmental standards. New technologies allow for more reliable, continuous and real time environmental monitoring to provide reliable data to support compliance.

In addition to the above and as best practice, jurisdictions should:

- Better utilise innovative monitoring techniques to implement production subject to compliance or the concept of a 'rolling' licence. This would facilitate certainty and continuity of production. This would alleviate bottlenecks, indirectly promoting environmental management and practices, and remove administrative burden providing transparency for stakeholders regarding environmental impacts, reduced administration for producers, and reduced frequency in processing applications for decision makers.



- It is also recommended that granted licences should be recognised as business assets. This would allow Licences to be classed as a company asset. It would mean they are mortgagable (used as collateral for a creditor's security interest) and transferable, similar to the Norwegian system outlined, where all licences are a marketable asset.

Example: Aquaculture licensing and regulation, a case study - Norway

In Norway the Ministry of Trade, Industry and Fisheries allocates licences to applicants through an assessment of proposals or through auction. Applicants compete for an allocated number of licences. The licence holder must apply to the relevant County Council to obtain a suitable site, which must comply with several guidelines and regulations on environmental protection, coastal planning and management. The Directorate of Fisheries is responsible for deciding on appeals against decisions made by the country authorities.

Licences are classified as business assets and may be sold at auction, mortgaged or transferred. They may not be leased. Licence holders may apply for one or more sites.

Under the Aquaculture Act, the minister can revoke or amend any licences under the following 5 conditions: Environmental considerations; Changes in material underlying to the licence; In event of gross or repeat contravention of provisions of the licence and the Act; If the licence is not used or, only used to a limited extent; or if a licence has lapsed.

Flexibility/adaptability and design of the licence

Efficient regulation and management of aquaculture is a necessary component to protect the environment and to meet production standards. Aquaculture production requires a legal permit to meet these standards, but the restrictiveness of this approach creates a bottleneck within a dynamic and changing production environment.

As a minimum standard, jurisdictions should:

- Review the current legal permitting constraints.
- Where possible, make revisions to allow for flexibility with respect to the dynamics of the ecosystem and environment in which the producer operates.
- Design licences to allow for adaptive management by the producer

In addition to the above, as best practice:

- Create procedure to facilitate responses to environmental change and new threats without the need to re-apply to amend or alter the licence.
- Make allowances for the trialling of new equipment, infrastructure and production methodologies allowing for development of innovative technologies without the need to permanently amend or alter the licence.



- Facilitate the trialling of new species, for example, introducing new trophic levels as part of IMTA as a bio-remediation strategy or introducing cleaner fish as a biological control of parasites.
- A suggested approach is using an annexed structure to allow for sufficient regulation whilst allowing for adaptability to new and emerging issues.
 - The principles and parameters of the licence are clearly defined in the central terms of the licence document. These are separated from the Technical annexes, which are appended to the licence. The Annexes can be amended to facilitate new technologies and environmental concerns, within defined parameters, without needing to amend the licence itself.
 - Allowable amendments can be made within clearly defined parameters.
 - This removes the need to materially alter the central terms of the licence.
 - This allows for simpler and more efficient administrative amendments.

An additional method to create flexibility and adaptability in licensing is the creation of research or trial licences. The key result facilitates and encourages research and technology development of the sector. Non-commercial licences or trial licences should be developed and made available to stakeholders. This should be for a defined period, after which it can be renewed or converted to an application for a full commercial licence. This approach is in line with the strategic goal of several multi annual national plans, aiming to increase research and development initiatives and strive for new and innovative technologies. This approach would greatly benefit the industry and blue growth within the sector.

Example: Research licences in Norway

In Norway there is a system for granting non-commercial licences. The first of which is the “development” licence. Here a company can get a licence to develop new technology and/or new operational practises. Competition for these licences is difficult and for the successful applicant, a work programme must be well established with support from scientific or technology partners. The benefit is:

1. Value of the fish production which covers the cost of technology development.
2. The route to convert the licence from a development licence to a regular operational licence after the development period.

The second type is the Research and Development (R&D licence). It has a lot in common with the development licence but in this instance the successful applicant has to present an R&D project, the research method and results of which are to be open for the entire industry.

Number of licences

Regulation by multiple permits and agencies is an administrative bottleneck. The Scottish Crown Report, in reviewing the consenting process in Scotland, highlighted the term of licence issuance as a stumbling block. It highlighted that when operating as a producer, one is required to hold several licences in order to operate and the tenure is different for each, so some may need to be renewed prior to others adding to administration, frustration and time delays.



Member States should:

- Seek to reduce, where practical, the number of required licences, permits, etc.
- Seek to combine licences & permits where possible.
- Ensure the decision making process for each permit is conducted in parallel, and through a single one-stop-shop.
- Seek to streamline the overall number of licences and permits required to operate an aquaculture facility.

Legislation regarding the aquaculture licence

Individual analysis of Member States strategic national plans for aquaculture, highlighted over 50% of jurisdictions aim to focus effort on reducing complexity and legislation in an effort to meet production targets. Calls for simplification have been met by some national authorities, such as Ireland and Scotland, who have completed independent reviews of their licensing process. In Greece and Norway, the original framework was reviewed and the framework reformed and simplified creating an efficient and more streamlined series of processes.

Member States should:

- Carry out a review of their aquaculture consenting process, with the aim to identify the changes needed that will:
 - Ensure consenting decisions happen in a timely manner.
 - Create clarity and transparency in the consenting process.
 - Ensure it takes on board best practice and experience from other jurisdictions.
- Ensure the review provides clear, specific and actionable recommendations to ensure a rational, streamlined, transparent, efficient legislative framework and licensing system.
- Produce a specific and timed implementation plan for the recommendations from the review.

Such reviews and new measures have shown:

- Significant simplification of the licensing procedures.
- Reduced time and costs for the investors.
- Formally established time limits.
- Incorporation of permits.
- Area specific regulation and management for organized aquaculture development.
- Allowances for a pre-authorization for the lease of aquatic areas.
- Roles of the competent authorities are formally outlined.
- Leasing duration is increased and industry had clearly defined contacts and responsible agencies.

Based on best practice and previously completed reviews, it is recommended the following areas be addressed:

1. Review the current system to highlight issues and direct change



- a. Identify gaps in the legal framework.
 - b. Is the framework fragmented or complex?
 - c. Are licensing procedures complex or bureaucratic?
 - d. How many authorities/ agencies are involved in the decision making process?
 - e. Are the roles of agencies clearly defined?
 - f. Are administrative costs a limiting factor to sustainable growth?
 - g. Is best practice being utilized in decision making?
2. Restructuring of current process
- a. Creation of a single coordinating body acting as a centralised council/ authority for regulation and management.
 - b. Designate a case officer processing the application and communicating with the applicant.
 - c. Refining legislation to a single governing act or streamline the multiple legislation to a single system of complimentary acts.
 - d. Restructure of licensing system to encompass the following key areas:
 - i. Environmental standards.
 - ii. Land utilisation.
 - iii. Registration.
 - iv. Transfer & mortgaging of licences.
 - v. Control and enforcement.

Example: Regulation using Standing Stock Biomass (SSB)

Standing stock refers to the weight of stock at a specific location at a specific point in time. Standing Stock Biomass (SSB) is recognised internationally as the appropriate metric for assessing loading at an aquaculture production site and can be measured on a real time basis thus facilitating effective regulation and management of sites.

A move to using SSB as the means of measuring production capacity at an aquaculture site is seen as an efficient method of controlling the overall impact at a site or bay level. The principle of regulating SSB, on a site and at a larger area scale, to control overall impacts gives an effective and efficient tool to help effectively control risks.

This method is less effective at regulating extractive species where the carrying capacity is determined by the interaction of a cultured species with its ecosystem, which is strongly influenced productivity and hydrodynamics.

The use of hydrodynamic models with detailed spatial resolution in carrying capacity estimations allows for the study of processes that depend on specific spatial arrangements. An important element of the Aquaculture Act 2005 in Norway is that companies can be collectively obliged to reduce the Maximum Allowable Biomass (MAB) associated with their licences, based on the environmental condition of the production areas. In order to provide for a just system there are various exemptions from the general operational rules for the producers that are not contributing to the environmental problems. Exemptions are also made in order to secure the flexibility of producers active in several production areas.



The aquaculture licences stipulate the MAB that its holder is allowed to produce. But each site also has its own, site-specific MAB. A potential increase (or decrease) in the MAB of the production area does not affect the maximum allowable biomass of the sites. This creates issues with the new system because a company faced with the obligation to decrease the MAB of the licence in the production area may choose to just operate fewer sites, increasing farming density in these sites (provided there is capacity according to the MAB of the site).

Used appropriately standing stock biomass can be linked to the environmental conditions of a production area and can be an effective tool to control the overall impacts and control risks in an aquaculture production site or area.

Example: Trial Licence

The review of the multi annual national plans highlighted several jurisdictions aiming to increase research and development initiatives and strive for new and innovative technologies. This requires an administrative system and licensing process to complement these goals facilitating national objectives and industry needs.

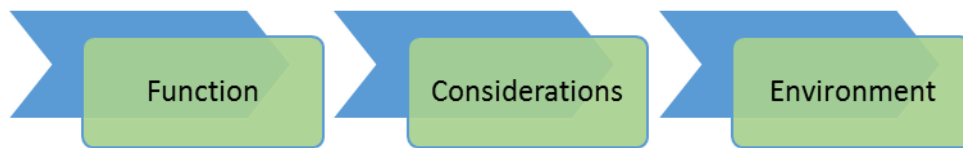
In conjunction with new approaches to licensing, jurisdictions need to incentivise the development of the sector and the identification of new sites by having flexible and progressive licensing fees for exploratory ventures.

Reviewing legislative control and allowing for short term research and trialling of new technologies would greatly benefit the industry and blue growth within the sector.

Modernisation is an “essential component of the industry” both financially, in reducing running costs and; environmentally in developing of new techniques to increase real time monitoring of the environment and work on reducing environment impacts and more efficient use of shared resources.



Environmental monitoring and its role in aquaculture licensing



Environmental monitoring is a crucial factor in aquaculture regulation and management from both industry perspective and environmental protection. Monitoring needs to move away from regimes looking at single point monitoring to on-going or real-time schemes which contribute data to support management, decision making and regulation.

As a minimum standard, member states should:

- Review current monitoring practises to ensure it is risk based and impact focused in regard to defined risks.
- Monitoring results should inform the suitability of a licenced site.
- Monitoring results should inform decision making regarding license approval/ renewal.
- Streamline and define the inspection services and their responsibilities, clearly defining the criteria and procedures for imposing sanctions.
- Level the playing field for producers across jurisdictions by working to harmonise the implementation of EU regulations through reducing the variations in implementation.
- Harmonise the procedure and requirements for Environmental Impact Assessments and Environmental Impact Statements across jurisdictions.
- Make reference to aquaculture as an ecosystem service provider as well as a pressure, in the implementation of regulations.
- Regulate on impacts at a zonal level, as well as at individual site level.

In addition to the above, as best practice:

- Monitoring requirements should be periodically reviewed over the period of the licence, for example, trial periods or site specific monitoring plans, where risk may differ from site to site.
- Guideline templates detailing recommended monitoring regimes based on pre-defined operations should be provided.
- The frequency of monitoring should be adaptive, allowing adjustment as circumstances change or new information/data supports the adjustment.
- Utilise cost-efficient monitoring regimes and emerging technologies, such as remote sensing and in-situ sensors where practical, to increase the frequency, accuracy and effectiveness of monitoring practices and create inexpensive on-going monitoring programmes.

