Written submission from the Royal Society of Edinburgh (RSE)

Summary

- The RSE supports the view that aquaculture has a fundamental role to play in meeting the key objective of food security. We welcome the trend towards servicing the increased demand for aquaculture feed while decreasing the level of fishmeal included in feed and substituting it with plant materials. Scotland must encourage sustainable fishing practices elsewhere. It is crucial therefore that efforts to expand Scottish fin-fish farming are achieved by reducing the proportion of fishmeal used still further.

- Scotland is a global leader in aquaculture and continues to require a strong research base. Whilst welcoming industry sponsored research into issues such as a vaccine for sealice, the balance of publicly-funded research should be given further consideration in light of the importance of aquaculture to food security.

- There is an apparent imbalance between the aquaculture section of the Bill and the fisheries section in terms of controls, the former seeming to receive more attention than the latter. We are also struck by the apparent lack of focus on the need for high quality and reliable scientific data pertaining to both sectors that should underpin sound policy development.

- We welcome the stated policy aim in the documentation accompanying the Bill that FMAg and FMS be developed according to the needs and circumstances of the particular farms. It should be recognised on the face of the Bill that FMAg and FMS are production plans, which must necessarily be flexible to meet the needs of different businesses and the day-to-day requirements of farm management. The detail of the plan naturally varies with the business and its requirements.

- We support measures to minimise escapes of farmed fish. We believe that the purposes in section 2 of the Bill for which fish may be sampled should be firmly focused on what appears to be the primary motivation of the provision in the Bill – which is to assist in investigations of escaped fish and the risk of impact of escapes from farms on stocks of fish other than those on farms.

- We are concerned that the only consideration mentioned throughout chapter 3 on commercially damaging species is the economic or commercial impact of the 'other species' on the fish farm. There is no mention of whether or not the species having an adverse economic or commercial impact is, for instance, of conservation or ecological importance. It should be made explicit that factors other than simply the commercial operation of the farm will be taken into account.

- There are no matters of principle about charging for services. This procedure is well accepted and in place in a range of properly established government agencies. However, each new ‘service’ for which a charging regime is proposed should be subject to consultation and full Scottish Parliamentary scrutiny through regulations which are subject to the affirmative procedure.
Background

The Royal Society of Edinburgh (RSE), Scotland’s National Academy, is pleased to respond to the Scottish Parliament Rural Affairs, Climate Change and Environment Committee’s call for views on the Aquaculture and Fisheries (Scotland) Bill. These comments have been compiled with the assistance of a number of expert Fellows of the RSE.

This response begins by commenting on a number of broader issues associated with aquaculture in Scotland. While these comments are not directly related to the scrutiny of the present Bill, we believe they will provide Committee members with important contextual information about the operation of the aquaculture industry. The response then addresses those specific parts of the Bill where the RSE has comments to make.

Aquaculture in Scotland

The RSE supports the view that aquaculture has a fundamental role to play in meeting the key objective of food security. With the pressures on wild fish stocks, the unsustainable approach to their exploitation, and growing global demand for fish as a source of high quality protein, the UK, and the world, will become increasingly reliant on aquaculture to meet demand.

The value of the aquaculture industry to the Scottish economy is clearly stated in the documentation accompanying the Bill. It dominates food exports, has an excellent international reputation, and is significant for employment in less favoured areas. Available investment for expansion has increased in line with a dramatic increase in demand for and price of salmon.

The stated primary objective of the legislative proposals is to ensure that farmed and wild fisheries continue to be managed effectively, maximising their combined contributions to supporting sustainable economic growth with due regard to the wider marine environment. In Scotland, fin-fish farming (primarily Salmon farming) depends on the domestic production of aquafeeds, based in part on imported raw materials. The fishmeal and fish oil industry is international in nature and supplies the entire range of domesticated animals, including farmed fish. The marine component of diets used in Scotland is obtained from such sources.

The RSE welcomes the trend towards servicing the increased demand for aquaculture feed while decreasing the level of fishmeal included in feed and substituting it with plant materials. Indeed, with a finite amount of fishmeal available, the IFFO (the International Fishmeal and Fish Oil Organisation) has developed a certification programme to demonstrate the sustainability of its operations. Scotland must encourage sustainable fishing practices elsewhere. It is therefore crucial that efforts to expand Scottish fin-fish farming are achieved by reducing the proportion of fishmeal used still further, and by importing fish meal from certified sustainable industrial fisheries, or from local fishmeal production within the EU under the EU’s existing strict legal controls on persistent organic pollutants (POPs). Scotland had led the way in research and development focused on the substitution of marine ingredients with high quality terrestrial ingredients and it should be recognised that the Scottish salmon industry is now at the cusp of being a net fish protein producer.
With an increased reliance on aquaculture, the issue of the vulnerability of stocks to disease assumes greater importance. Scotland is a global leader in aquaculture and continues to require a strong research base. The funding provided for research in this sector, for example the projects supported through the research institutions and funding bodies such as the Scottish Aquaculture Research Forum (SARF), is welcome, particularly at a time when funding levels elsewhere in the UK, through DEFRA, have declined significantly. However, the levels of spend continue to be modest compared to funding for research in agriculture. Whilst welcoming industry sponsored research into issues such as a vaccine for sealice, and the promotion of research to address industry needs through the MoU on Aquaculture signed by the Scottish and Norwegian Governments, the balance of publicly-funded research should be given further consideration in light of the importance of aquaculture to food security.

Specific comments on the contents of the Bill

There is an apparent imbalance between the aquaculture section of the Bill and the fisheries section in terms of controls, the former seeming to receive more attention than the latter. We are also struck by the apparent lack of focus on the need for high quality and reliable scientific data pertaining to both sectors that should underpin sound policy development. In both cases, policy development should be evidence based.

Part 1: Aquaculture

Chapter 1:

Fish farm management agreements and statements

The Farm Management Area Approach (FMA) and Farm Management Agreements (FMAg) have been fundamental to the development of Scottish salmon farming and have allowed the aquaculture industry to develop effective area management approaches and biosecurity systems. The introduction of Farm Management Statements (FMS) has embedded the FMA approach in single operator areas. We welcome the fact that the vast majority of operators are voluntarily signed-up to either a FMAg or FMS and we support making it a legal requirement for all marine finfish farm operators to operate under the terms of a FMA or FMS. This will help ensure that the industry adheres to the latest and highest environmental and husbandry standards.

We welcome the stated policy aim in the documentation accompanying the Bill that FMAg and FMS be developed according to the needs and circumstances of the particular farms. It should be recognised on the face of the Bill that FMAg and FMS are production plans, which must necessarily be flexible to meet the needs of different businesses and the day-to-day requirements of farm management. The point of statutory assessment is therefore the requirement for an FMAg or FMS to be in place not for a detail-by-detail regulatory approval of the FMA or FMAg itself. The detail of the plan naturally varies with the business and its requirements.
**Escapes and obtaining samples from fish farms**

The documentation accompanying the Bill indicates that there is evidence that escapes of farm fish are generally declining through increased awareness, significant investment in new equipment by industry and the implementation of best practice training on containment. These ongoing developments, coupled with the proposal to introduce a Scottish Technical Standard, are to be welcomed and we support measures to minimise escapes even further.

Section 2 of the Bill makes provision to enhance the investigation powers currently available to inspectors and to provide inspectors with additional powers to take or require samples of fish from any fish farm in Scotland. We believe that the purposes for which fish may be sampled should be firmly focused on what appears to be the primary motivation of the provision in the Bill – which is to assist in investigations of escaped fish and the risk of impact of escapes from farms on stocks of fish other than those on farms. Care must be taken in respect to making provision for purposes that go beyond this e.g. research. Purposes such as this may give rise to human rights, legal ownership, intellectual property, and commercial competition considerations for businesses both within and beyond fish farming. (For example, details of genetic breeding lines are clearly highly important commercially restricted information for individual breeding companies.)

In relation to the use of forensic tracing as a means of determining the origin of escaped farm salmon in Scotland, this requires further research, including field-testing, before such a system can be introduced which inspires the confidence of all key stakeholders.

On a point of detail, in this section of the Bill there is reference to “fish, or material from fish”. This should be corrected to the biologically precise “fish, or tissues from fish”.

Chapter 2:

**Technical requirements for equipment used in fish farming**

Section 3 of the Bill relates to the development of Scottish Technical Standards pertaining to improved containment, which is being taken forward by a joint industry and Scottish Government group. The section raises no issues of fundamental principle but there are two important technical aspects which need to be addressed:

a) The reference to ‘technical requirements’ in section 3(1)(a) and elsewhere should be replaced by ‘technical standards’, which is the appropriate point of focus for regulatory control. We note that ‘technical standards’ is the terminology used in the policy memorandum to the Bill.

b) The reference to ‘-- for equipment’ in paragraph 3(1)(a) is too all-embracing and not consistent with the approach to developing standards. It should be replaced by something like ‘---- for specified equipment’. This would then properly reflect the Scottish Technical Standards approach.
Wellboats

The industry recognises the importance of appropriate management of the biosecurity requirements associated with the transportation and transfer of fish, including the use of wellboats. The Code of Good Practice details a cleaning and decontamination regime for wellboats. We welcome the Bill’s provisions that would enable Scottish Ministers to introduce additional requirements in relation to the control and monitoring of the operations of wellboats in Scotland as a means of minimising the risk of the spread of parasites, pathogens or diseases.

We note that section 4 defines “wellboat” as comprising “a vessel that contains a tank or well for holding water….” As stated, this definition would seem to include not only conventional wellboats but almost all small workboats used on fish farms. The Committee should investigate whether this is intended as it could render fish farms almost inoperable depending on the nature of any Scottish Ministerial provision made for the control and monitoring of wellboat operations.

Chapter 3:

Commercially damaging species

Commercially damaging species are defined within the Bill as those that, “if not controlled, would be likely to have significant adverse impact on the economic or commercial interests of a person who carries on a business of fish farming or shellfish farming, and is itself of little or no commercial value”.

We are concerned that the only consideration mentioned throughout this chapter is the economic or commercial impact of the 'other species' on the fish farm. There is no mention of whether or not the species having an adverse economic or commercial impact is, for instance, of conservation or ecological importance. As it stands, the Bill would appear to give Ministers the power to licence control measures against, for instance, fish or shellfish predators without any consideration of their wider role or importance in the ecosystem or environment. It should be made explicit that factors other than simply the commercial operation of the farm will be taken into account.

Part 2: Salmon and freshwater fisheries

Enhancing management of salmon fisheries

There is little in this Part of the Bill that could be objected to. We would, however, like to make the following points.

a) Section 20 of the Bill inserts new sections relating to governance and accountability into the Salmon and Freshwater Fisheries (Consolidation) (Scotland) Act 2003. In addition to the provisions in 46E (3) that require a district salmon fishery board to ensure that the register of members’ relevant financial interests is made available for public inspection, there would be substantial public and community benefit from annual publication of a list of salmon fisheries owners and occupiers in Scotland. This would increase
transparency in the system. This is a topic which the Land Reform Review Group may seek to address.

b) The Bill in Section 24(2)(a) “require a person having rights in a salmon fishery or freshwater fishery to provide the Scottish Ministers with such information relating to the fishery as they may reasonably expect”. However, on the face of the Bill there should be a requirement for such persons to provide information on the fishing effort in the rod and line fishery. The absence of this information is drawn attention to in Marine Scotland’s annual salmon fishery statistics. It is difficult to fully interpret the catch statistics without the fishing effort data. In this regard the statistics for England and Wales are more complete compared to those available in Scotland.

c) The annual salmon fishery statistics show that in 2011, 73% of the annual salmon rod catch was released. Given the widespread adoption of catch and release practices across District Salmon Fishery Boards, consideration should be given to the introduction of measures to record multiple catching of the same fish. Without this, the rigour of the catch statistics as a conservation tool is eroded.

d) The proposal to introduce a carcass tagging scheme for wild caught salmon offered for sale to replace the current voluntary scheme is one which we welcome. It should strengthen traceability and support the application for protected food name for Scottish wild salmon currently being considered by the European Commission. We welcome the fact that further consultation with stakeholders is being undertaken to ensure any scheme does not impose a disproportionate financial burden on small businesses.

Part 5: Miscellaneous

Charging

There are no matters of principle about charging for services, other than some potential concerns about interference in the commercial market for service provision. This procedure is well accepted and in place in a range of properly established government agencies. However, each new ‘service’ for which a charging regime is proposed should be subject to consultation and full Scottish Parliamentary scrutiny through regulations which are subject to the affirmative procedure.

Fixed Penalty Notices

We are becoming increasingly concerned that Fixed Penalty Notices (FPNs) are being introduced widely across a vast range of regulatory controls without proper legal or financial justification. There is a concern that FPNs will lead to an erosion of the professional rigour of the process of legal evaluation of non-compliance. There is a need for the Scottish Government to address public concern on this matter and to publish clear information and ‘performance statistics’ for regulatory controls to which FPNs apply.