

RURAL ECONOMY AND CONNECTIVITY COMMITTEE

SALMON FARMING IN SCOTLAND

SUBMISSION FROM NICK UNDERDOWN

The REC Committee has a tough but important job on its hands with this inquiry. I hope it can navigate a meaningful way forward to improve the regulation of the Scottish salmon farming industry and is able and democratically mandated to make bold judgements about what is needed for the long-term health of Scotland's economy and environment. There is likely no quick fix.

I am a former local journalist who has reported historically on fish farm applications, issues of rural community development, landownership and now work and volunteer in fisheries, marine and planning policy. I share with many others a deep concern about the strategic direction of the salmon farming industry and its implications for the long-term public good of Scotland and its economy.

1. Do you have any general views on the current state of the farmed salmon industry in Scotland?

Yes. As currently structured and regulated, the Scottish salmon farming industry is arguably hindering the long-term development of a prosperous, independent country because it externalises many significant environmental and economic costs, and risks inadvertently damaging the development of other economic sectors. The environmental costs have generally been well summarised by the SAMS reportⁱ which informed the ECCLR Committee's reportⁱⁱ, (although paragraph 6.1.2 of the SAMS report 'Efficiencies' is highly contestable, as it depends on paraphrased literature of a single source which focusses on the performance of the Norwegian industry).

Should we be selling off our seabed piecemeal without broader consultation?

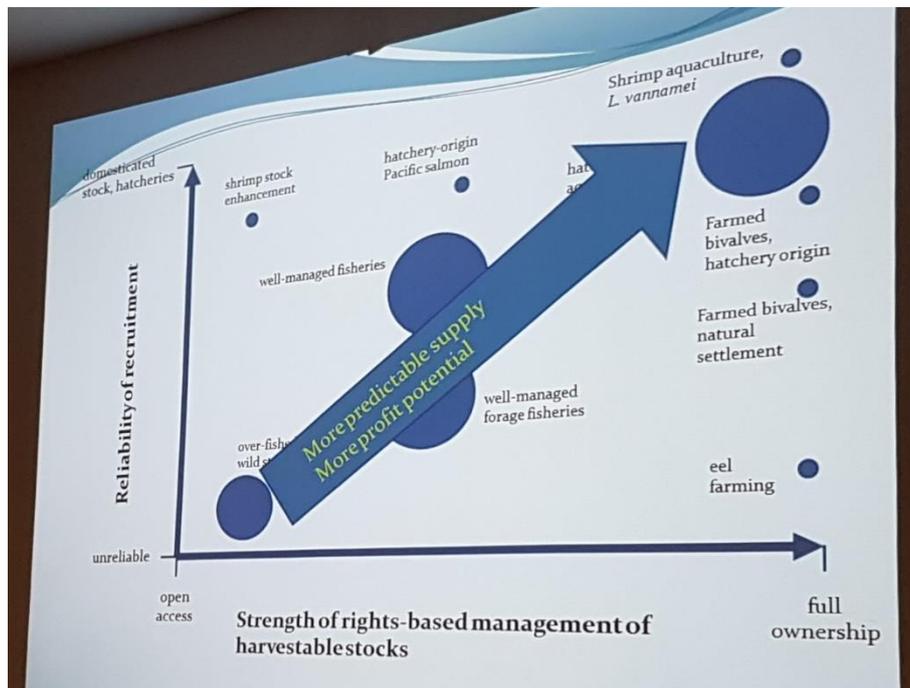
Leases for salmon farms are currently granted in perpetuity. This is a mistake. The seabed is a public asset and granting de-facto ownership means that the regulator/steward of the resource has less scope to adapt its management strategy in light of scientific and technological developments such as the emergence of alternative seafood harvesting and production methods. Salmon farms have not proven that their business and production model is sustainable and therefore should not be afforded such a strong position within the planning system. Notwithstanding the need for commercial and planning certainty for applicant businesses, the Crown Estate Scotland is strategically disadvantaging itself as a public body with a duty to manage the public seabed resource in alignment with principles of sustainable development. There currently appears to be no intentionⁱⁱⁱ to re-consider this arrangement and I would urge the Committee to look at this.

Does farmed salmon contribute to global food security and a low carbon economy?

There is international concern about food security and Scottish salmon farming companies – and the global salmon farming industry at large - is often described as playing a key role in feeding the planet sustainably by producing protein with a low

carbon footprint. These are powerful, but debatable narratives. Scottish farmed salmon is not in the Cabinet Secretary's recent words "*providing to the world the most nutritious food that there is with the lowest carbon footprint*"^{iv}. Fergus Ewing's comment is regrettably Trumpesque in rhetoric and ill-informed. 'A systematic review of greenhouse gas emissions for different fresh food categories' estimated salmon to generate 3.67kg of CO₂-eq for every kilogramme of bone free meat. This compares to 3.65kg for chicken.^v Other studies have put this much higher at (11.9kg)^{vi} and 6.6 CO₂/Kg^{vii}. This is largely due to the fact that a large proportion of emissions stem from fish feed production. Developments in the feed supply chain (ie by transitioning to plant proteins and oils) are ongoing but the Scottish industry is a long way off reducing its current footprint. Indeed, the long-term implications of transitioning to plant-based feeds have not been widely studied. In the meantime, different companies operating in Scotland have different feed arrangements, so the carbon footprint of 'Scottish salmon' is not easily determined. It is also not clear whether global analyses of salmon's carbon footprint adequately incorporate the high mortality rates that are currently symptomatic of Scotland's generally intensive salmon production and the increasing use of cleaner fish to combat sea lice. In short, any claims that farmed salmon has a comparatively low carbon footprint must be taken with a large pinch of sea salt and not used as a justification for growth at all costs.

Do salmon farm companies act in Scotland's long-term interest?



The slide above was presented at a public meeting by a representative of Stirling University's Institute of Aquaculture in 2016. It highlights the current logic underlying the agenda to 'grow' aquaculture in general. In short, dependable property rights enable management regimes which supposedly provide a more predictable supply and profit potential, for shareholders. This indicates a non-holistic rationale for the growth of aquaculture. In Scotland, the seabed is a public-owned resource and

people should have democratic rights to influence its management via the planning system. It should not be effectively privatised to satisfy shareholder profit. The belief (and industry optimism) that farming fish necessarily yields higher and more dependable returns on investment than wild fisheries is driving public policy, but it is mistaken because:

- salmon farming remains by comparison to wild fishing, an experimental business model. It's been in operation for only circa 50 years. The current problems (outlined by ECCLR's report) experienced by the industry are a symptom of the trend towards intensification and the profits are therefore not sustainable at current levels.
- Wild-capture sea fisheries can be well-managed and profitable and many wild fisheries do not have the same associated environmental costs. For example, inshore creel fisheries for crab, lobster and prawns are a high value method of fishing with a relatively low environmental impact, which is not predicated on seabed property ownership.

Furthermore, the pesticides used in salmon farming have a potentially very real long-term economic cost to creel fisheries due to their possible impacts on crustacean life cycles. ECCLR heard evidence that:

“Fish farming is unique in that it is a sector which is allowed to discharge substantial quantities of biocides, some of them Priority Substances in terms of the Water Framework Directive and all at least List II substances in terms of the old EU ‘Dangerous Substances Directive’ ... the waters in which salmon farming is practiced are usually the same waters in which Scotland’s valuable crustacean fisheries are located ... it is not tenable for SEPA to adopt a position where commercial shellfish species are impacted by the day-to-day activities of fish farms”^{viii}

This whole area needs more thorough research, as currently planning authorities are making decisions which either allocate space for salmon aquaculture or reserve it for wild sea fishing such as creeling and trawling. Planning guidance should urgently be developed to take a precautionary approach on this issue.

The very existence of this inquiry suggests that the industry (or perhaps its lobbying leadership) is not sufficiently strategic in protecting the long-term interests of its employees. In the 2000s, industry leaders could have taken proactive steps to mitigate impacts of the collective operations of its members, rather than help maximise their profits. However, they sought broadly to extend the status quo of light or self-regulation, via Area Management Agreements and the Ministerial Working Groups which have had very little positive impact on environmental performance. If they had taken a more proactive approach, they would not have created such a divisive atmosphere and placed employees of fish farms in a position of potential uncertainty during a Parliamentary Inquiry.

In the meantime, fish farm companies (mostly foreign-owned) are making sizeable annual profits. Just by way of example, total staff costs for Scottish Sea Farms (its parent company Norskott Havruk is registered in Norway) in 2016 amounted to

approximately £15m^{ix}. In the same year the company made £33m in profit, remunerated one of its directors £496,000 and paid an equity dividend of £10m to its sole shareholder, the parent company Norskott Havbruk. Where is the commitment to local communities? Where is the benefit for Scotland plc?

Are salmon farms providing long-term rural jobs?

People who currently oppose the development of salmon farms are being portrayed by some interests as anti-development. This is a worrying mischaracterisation and should be corrected wherever it is voiced. There are people across Scotland who are not comfortable with the expansion of salmon farms. These are people from all walks of life, with different personal and commercial backgrounds: fishermen, coastal communities, tourism businesses, naturalists. They include both Scots with proud, long-standing, rooted Scottish ancestry and those who have settled in the country more recently. Civic Scotland in all its diversity is watching this issue.

People who oppose on a precautionary basis the expansion of salmon farming and who seek to reform regulation share a strong sympathy with the importance of rural development and jobs. Rural employment is a sacrosanct issue, not because of 'jobs' per se, but because it's not really about 'jobs' – it is more often about a way of life, where knowledge, lineage and rootedness in the land is at risk from outward migration to the urban centres. The logic goes, that it's better to have poor, insecure jobs than no jobs at all. However, this is an extremely short-term approach to protecting a threatened way of life and community culture in rural Scotland. If the expansion of salmon farming is permitted without the necessary checks, then we risk not just the continued decline of wild salmon, which dislocates our people from one of the most precious symbols of our natural heritage (wild salmon), but the potential local decline of other more traditional forms of fishing. Jobs and livelihoods with a track-record of sustainability are at risk of being negatively affected by the industry or edged out as seabed real estate is carved up with increasing numbers of fish farm leases being leased in perpetuity.

So what are the options?

Like many, I support an immediate moratorium on expansion, as per the recent call by Salmon and Trout Conservation Scotland and a raft of other organisations^x. This could be implemented, either at local level via Supplementary Guidance developed by local planning authorities or at national level by issuing advice to Chief Planners, or indeed by amending Scottish Planning Policy (2014). The Scottish Government has the legal and planning tools to do this. This may unsettle commercial interests in the short-term, but would in the long-run ensure that this inquiry has the confidence of the Scottish people and its representatives in the Scottish Parliament.

Going forwards, specific measures such as reductions in mandatory maximum stocking densities (as some businesses have already adopted), and industry investment (incentivised by Government) to transition to land-based, closed containment facilities should be progressed. Other countries are doing this. Scotland should follow suit.

2. There have been several recent reports which suggest how the farmed salmon industry might be developed. Do you have any views on action that might be taken to help the sector grow in the future?

The premise of this question is revealing. The salmon farming industry is just one sector of many operating in our coastal waters. Its 'growth' will undoubtedly have impacts on the growth or sustainable development of other industries, such as other forms of aquaculture (eg shellfish farming), wild-capture fishing and marine tourism. It should not therefore be assumed that actions are necessary to help the salmon farm sector grow in the future. It is acknowledged that there is a strategy (via Aquaculture Growth to 2030)^{xi} to deliver growth, but the elephant in the room is that this was quite likely not a particularly sensible strategy in the first place. People have been making the case for years that growth targets for farmed salmon are simply not appropriate or strategic until research has been conducted, eg Scottish Environment LINK's unheeded response to the National Marine Plan.^{xii} Scottish aquaculture should not be all about Scottish salmon – there is simply not enough strategic investment in diversifying the sector. Why grow salmon when public subsidies could be directed at less environmentally harmful alternatives?

The Scottish Government's salmon farming growth agenda could impact on Scotland's profile internationally, as there are significant numbers of people who are clearly giving the world a different and well-evidenced view of the negative impacts of salmon farming via news reports. This is not media hysteria; it is evidence-based concern. If Scottish salmon becomes a toxic brand, it affects Scotland's reputation at large. This has serious implications for our fishing, tourism and therefore the wider Rural Economy.

3. The farmed salmon industry is currently managing a range of fish health and environmental challenges. Do you have any views on how these might be addressed?

I anticipate you have received detailed responses on this from the wide range of interests engaged with this inquiry. Divestment from open net cage salmon farming to a closed containment model is urgently required. This would need to be done with significant sensitivity, as any divestment from existing open-net cage farm sites could have implications for the local economies and communities. However, it would surely be an opportunity for existing salmon farm companies (such as Marine Harvest and Scottish Sea Farms) to demonstrate their stated commitment to the communities where they operate by maintaining existing jobs in any new production facilities.

4. Do you feel that the current national collection of data on salmon operations and fish health and related matters is adequate?

No. More inspections and visits by regulators are required. Food Standards Scotland should also be conducting far more frequent and routine monitoring of the nutritional quality and safety of farmed salmon. Currently there are simply not sufficient safeguards for consumer welfare.

5. Do you have any views on whether the regulatory regime which applies to the farmed salmon industry is sufficiently robust

There should be much higher financial penalties for breaches of license conditions. Given the environmental context, repeat non-compliance is hard to justify. Currently farms that are performing poorly against a whole range of site management criteria are still able to sell an undifferentiated product to end-retailers. This presents a traceability problem and makes it difficult for consumers to demonstrate preferences for 'better-managed' salmon farms.

6. Do you have any comments on how the UK's departure from the European Union might impact on the farmed salmon sector?

Yes. All exported goods are going to need to comply with European regulations re traceability and environmental standards. If Europe negotiates hard with an apparently conflicted and disorganised UK Government, then they will rightly require that Scottish products adhere to EU food rules and standards, set by the EU. If Scotland is not adhering closely to key regulatory frameworks such as the Water Framework Directives and the Marine Strategy Framework Directives, then exports to the EU market could be affected. Furthermore, it has been reported that "the UK certificate of organic aquaculture products is likely not to be valid as of the withdrawal date for EU market access".^{xiii}

Nick Underdown
April 2018

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http://www.parliament.scot/S5_Environment/General%20Documents/20180125_SAMS_Review_of_Environmental_Impact_of_Salmon_Farming_-_Report.pdf

ii http://www.parliament.scot/S5_Environment/Inquiries/20180305_GD_to_Rec_salmon_farming.pdf

iii http://www.parliament.scot/S5_Rural/Crown_Estate_Scotland.pdf

iv <https://www.fishfarmingexpert.com/article/cabinet-secretary-we-fully-support-2030-growth-plans/>

v http://eprints.lancs.ac.uk/79432/4/1_s2.0_S0959652616303584_main.pdf

vi

http://static.ewg.org/reports/2011/meateaters/pdf/methodology_ewg_meat_eaters_guide_to_health_and_climate_2011.pdf

vii <http://esu-services.ch/fileadmin/download/buchspies-2011-LCA-fish.pdf>

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<http://www.parliament.scot/parliamentarybusiness/report.aspx?r=11359&i=103310&c=2063596#ScotParlOR>

ix <https://beta.companieshouse.gov.uk/company/00958001/filing-history/MzE4Njc2NjU3OWFkaXF6a2N4/document?format=pdf&download=0>

x <https://www.salmon-trout.org/2018/04/26/demand-for-immediate-moratorium-on-salmon-farm-expansion/>

xi <http://scottishsalmon.co.uk/wp-content/uploads/2016/10/aquaculture-growth-to-2030.pdf>

xii <http://www.scotlink.org/files/policy/ConsultationResponses/LINKrespNatMarPlanNov2013.pdf>

xiii <https://www.theparliamentmagazine.eu/articles/news/movers-and-shakers-16-april-2018>