

RURAL ECONOMY AND CONNECTIVITY COMMITTEE

SALMON FARMING IN SCOTLAND

SUBMISSION FROM GEORGIA ARNOLD

I want the Scottish Government to clean up Scotland's unsustainable fish farming industry before allowing it to expand and do further harm to the health of our coastal waters and habitats which will affect the jobs of many of those whose livelihoods depend on them.

Open net salmon farming is environmentally unsustainable as practiced in Scotland at the moment. It is the Scottish Government's duty under the Nature Conservation (Scotland) Act 2004 to further the conservation of biodiversity. By allowing salmon farming to expand in its current form it is failing in that duty, for the following reasons:

- Sea lice and infectious diseases are out of control among farmed salmon, resulting in the deaths of over 10 million fish per year, the equivalent of 25% of total production. Find out more in the recent report commissioned by the Salmon and Trout Conservation Scotland: <https://www.salmon-trout.org/wp-content/uploads/2018/01/Thorstad-Finstad-2018-Impacts-of-salmon-lice-NINA-Report-1449-2.pdf>
- Sea lice are treated with toxic chemicals, such as emamectin benzoate. This and other pesticides as well as antibiotics are released into the sea, where they harm other marine animals such as shrimps, prawns and lobsters. The Scottish Environment Protection Agency (SEPA) claims that the limits placed on the quantities of chemicals make them safe, but their use is soaring as sea lice, disease and resistance to these chemicals increase. The industry should not be allowed to expand until sea lice and disease are sufficiently controlled.
- The use of so-called "cleaner fish", such as wrasse to counteract lice, bring problems of their own. Recent reports show that they too suffer from and transmit disease.
- Escaped farmed salmon pose an even greater threat to the survival of wild salmon and sea trout, which are in steep decline on the west coast, through the spread of disease and weakening of the gene pool of our indigenous salmon. An estimated 2.2 million farmed salmon escaped from Scottish farms between 2002 and 2017.
- The use of Acoustic Deterrent Devices (ADDs) to deter predators from open net cages, causes illegal disturbance and can cause hearing damage to porpoise, dolphins and whales. When ADDs fail, salmon farm operators are allowed to shoot seals. More than 1,500 seals were unnecessarily shot in the last six years in Scotland. Farms could fit anti-predator nets as they do Canada where ADDs are banned, but bullets and ADDs are cheaper.

- On land, polluting industries have to pay to clean up their mess. Uniquely this does not apply to salmon farms! According to the report commissioned by the Scottish Parliament, 200,000 tonnes of salmon produce organic waste equivalent to about half of Scotland's human population of 5.3 million. By 2030, Scottish salmon farmers aim to produce 300,000 tonnes of farmed salmon, which will produce the equivalent of three quarters of all Scotland's human sewage, which will be dumped untreated into our coastal waters and sea lochs.
- As dissolved nutrients from salmon farms flow into the sea in ever greater quantities, they increase the risk of toxic algal blooms, which threaten our shellfish fisheries and pose severe health risks. When there is doubt about environmental harm, government and local authorities have an obligation to apply the precautionary principle, to safeguard the environment. This must apply to salmon farming.
- The government must acknowledge that some marine areas are so sensitive and important to our ecosystem that they should be completely protected from salmon farming. More than a quarter of salmon farms are sited within or close to areas of importance for Biodiversity Action Plan habitats or species, and around 10% are within or close to Special Areas of Conservation / Special Protection Areas. Many more are inside Marine Protected Areas. The Scottish Government should urgently amend national marine planning guidance, so there is a presumption against any future salmon farming developments inside Marine Protected Areas.
- Currently the salmon farming industry claims its activities are environmentally sustainable. The industry should stop downplaying the challenges their industry faces and take a much more responsible approach to resolving their major environmental impacts. One example is their feed. Salmon has no health benefits unless it contains Omega 3 fatty acids which it would normally gain from eating other fish in natural, wild conditions. The pressure on anchovies from Peru which are used as fish feed is so severe that they are already being exploited to the maximum extent possible.
- The industry is now turning to a mixture of vegetable protein and 'processed animal protein' (the bits that no-one else wants to eat). Vegetable proteins are only sustainable if they are grown on land that was not rainforest, specially cleared for that purpose, or when they do not displace other, more sustainable users of the land.
- Due to its environmental remit, the visual impact of salmon farms on the environment has not been considered in the Scottish Parliament-commissioned report. Scotland's tourism industry thrives first and foremost because of its unique, unspoiled beauty. Tourism earns 14 times more revenue for Scotland than aquaculture and employs at least 130 times more people than the 1,800 or so directly employed on fish farms. In a 2011 survey done on behalf of the aquaculture industry, about one third of people asked, thought that fish farms

adversely affected the Scottish coastline. Approximately a quarter did not want to see any increase in their number and one third did not want to see them get any larger. This survey was based entirely on how they look. Imagine if the visitors surveyed had known what was happening underwater...

- International treaties bind our government to use 'best environmental practice' and I believe that salmon farming companies should pay a levy on their profits to ensure this happens. This could be spent on moving all salmon farms to closed containment, ideally on land, as isolating the fish from the sea would solve almost all of the problems in one go. Norway, Canada and the US face the same problems with sea lice and disease in open net salmon farms and are moving to closed containment. In fact, open net salmon farms have been banned in all but one state in the US. A Norwegian company recently invested \$72 million dollars in a closed containment fish farm in China. If it can be done there, it can be done here too.
- The report commissioned by the Scottish Parliament shows that our government agencies have done much less research into the effects of salmon farming than the governments of Ireland and Norway, which share the same problems. I encourage the Scottish Government to use this research and improve transparency in developing its own scientific advice and decision-making.
- The industry has grown too close to its own regulators. The government environmental agencies SEPA and Marine Scotland are being influenced by a well-resourced industry lobby, as recent Freedom of Information Requests have revealed. A recent blueprint (<http://scottishsalmon.co.uk/wp-content/uploads/2016/10/aquaculture-growth-to-2030.pdf>) to double Scotland's salmon production by 2030, published by the salmon farming industry, shows how it intends to create an "enabling environment" to "unlock growth" by "aligning" regulation with "industry ambition". The Scottish Government currently appears to be supportive of these proposals which are re-designing our environmental regulation and are already being implemented.
- Significant cuts to the budgets of our environmental agencies mean they do not have the resources and powers to enforce the rules. As a result, fish farm operators are mostly self-regulating, reporting their impact on the environment, but with little oversight and even fewer sanctions for non-compliance. Despite hundreds of breaches of regulations in the past, there has not been one successful prosecution.
- I call on the Government to fund these agencies properly so they can monitor salmon farms entirely independently of the companies they are regulating. The level of funding must reflect the industry's expansion and enormous profits. Their sales in 2016 were worth £765m, by the way.
- When salmon farms fail to comply with the rules there must be serious consequences. The companies' licenses should be revoked when they do not

respect their terms. At present, the worst offenders continue to pollute and expand their activities in new sites.

A large number of people have supported a petition - created by the Salmon Aquaculture Reform Network Scotland (SARNS) - advising the Scottish Government to clean up Scotland's unsustainable fish farming industry before allowing it to expand and further harm our coastal waters. From the thousands of signatures so far received (link to petition can be provided upon request) **it is clear that many are against the expansion and concerned about the above mentioned environmental issues involved.** I urge the REC Committee to take into consideration these issues and help work towards a more sustainable salmon farming industry which complies fully with current environmental regulations and resolves existing problems before pursuing what would be a harmful and damaging move to expand the industry.

Georgia Arnold
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