

# Marine Conservation Society Fish Farming Policy Statement



**Marine  
Conservation  
Society**

## Introduction and overview

The Marine Conservation Society (MCS) was established in 1983 with the aim of protecting the marine environment for wildlife and future generations. MCS is the only national environmental charity working exclusively on the range of issues affecting the marine environment.

MCS campaigns for clean seas and beaches, sustainable fisheries, protection of marine life and their habitats, and the sensitive use of our marine resources for future generations. Through education, community involvement and collaboration, MCS raises awareness of the many threats that face our seas and promotes individual, industry and government action to protect our seas for the future.

MCS believes responsible management, incorporating the mitigation of environmental impacts within a robust and transparent policy framework is essential to achieve an environmentally sustainable fish farming industry.

MCS aims to research, promote and encourage the adoption of environmentally responsible and sustainable practices within the fish farming industry that:

- minimise adverse effects on local wildlife, habitats and landscapes from pollution or poor siting;
- utilise the best sustainable feed options available;
- provide optimum protection of wild stocks from escapes associated with fish-farms;
- continues to work towards achieving optimal health and welfare of farmed species; and
- utilise the least damaging shellfish harvesting methods.

MCS believes that adoption of these practices will help achieve a balance between the development and diversification of the aquaculture industry and the maintenance of marine ecosystem integrity.

MCS promotes the adoption of sustainable fish-farming practices by working with fish farmers and other stakeholders, advising government and decision makers, and informing consumers of the most sustainable choices for farmed fish and shellfish. As the industry continues to develop and further research is undertaken this will be used to further inform and refine what MCS regards as sustainable practice.

## **Fish Farming**

Currently 47% of fish destined for dinner tables worldwide is produced by aquaculture<sup>1</sup>. The Food and Agriculture Organisation of the United Nations (FAO) estimate that by 2030 the world will need to increase its production of food fish by another 40 million tonnes. Even if capture fisheries become more effectively managed their production volume is unlikely to increase above current levels, therefore this shortfall can only be achieved if aquaculture production increases to fill this gap. Potential limiting factors to this expansion are: feed fish supply for farming carnivorous species, freshwater supplies, suitable sites, environmental degradation and the effects of climate change.

In 2002 FAO figures indicated that the UK was the third largest producer of farmed fish in the European Union (EU), with Atlantic salmon being the predominant farmed finfish species. 90% of salmon is farmed in Scotland, where fish farming rapidly expanded during the late 1980s and 1990s. The tonnage of salmon produced has increased from 598 tonnes in 1980 to 130,000 tonnes in 2007.

The fish farming industry is steadily diversifying, with a number of new farmed species now in commercial production. Species such as cod and halibut are being successfully farmed and trials are underway to commercially produce other species such as haddock and sea urchins. With coastal space becoming a premium due to increased demands from other coastal users, fish farming will potentially expand into deeper waters offshore. Although bringing some environmental benefits such as reduced impact on the seabed, such a move will also present a whole new set of challenges.

MCS believes fish farming operations should operate in an environmentally sustainable and responsible manner with regard for the health and welfare of both farmed and wild fish, particularly wild salmon stocks. The long-term protection of the wider marine environment and other users such as shellfish farms, shellfisheries and wild salmon anglers also needs to be considered. This can only be achieved by implementation of a robust policy framework that promotes environmental best practice within the industry and incorporates regular independent farm audits combined with the participation in Area Management Agreements where available.

MCS would like to see any future expansion of open - cage fish farming, only occurring within a suitable national planning framework, such as marine spatial planning combined with strategic environmental assessment, that identifies suitable locations for fish farms that can operate in harmony with other coastal users and the surrounding marine environment. Measures should also be taken to ensure that husbandry and management practices that reduce the impact of fish farming in the marine environment continue to be developed and implemented.

### **Issues of concern**

There are a range of environmental concerns associated with fish farming:

- Dependence on industrial fisheries of wild fish stocks for manufacture of fish-feed.
- Spread of disease and sea lice to and from wild stocks, which can be exacerbated with high-stocking densities.
- Impacts on wild salmon stocks through escaped farmed salmon interbreeding with wild salmon and causing genetic dilution in subsequent generations.
- Displacement of wild salmon eggs by the later spawning of escaped farmed salmon and increased competition for wild resources such as food created by such escapes.

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<sup>1</sup> FAO. State of World Fisheries and Aquaculture.2008  
March 2009

- Lack of wide ranging research on the effects of chemical pollution (from antifoulants and sea lice treatments) on other marine organisms.
- Nutrient pollution (from faeces and waste food) building up underneath cages and being suspended in the water column.
- Impacts on other activities such as shellfish culture, shellfisheries and angling interests.
- Cumulative impacts from fish farming and other activities in sea lochs leading to an adverse affect on the integrity of the lochs ecosystem and its conservation status.
- Conflicts with natural predators

### **MCS Position on fin fish farming**

- MCS supports the principles of producers who strive to meet high environmental and welfare standards with due regard for socio-economic considerations.
- MCS believes further expansion (of finfish production) should only occur within a robust strategic framework, such as strategic environmental assessment combined with marine spatial planning, which incorporates all environmental and ecological concerns.
- MCS supports the continued development of environmentally sensitive and ecologically sustainable finfish farming practices.
- MCS recognizes the value of independent and transparent accreditation schemes, such as the Soil Association organic certification, in promoting higher standards and increasing consumer awareness.
- MCS recommends the relocation of inappropriately sited fish farms, including those in the immediate vicinity of salmon rivers and historic wild salmon runs, seal haul-outs and predatory birds nesting sites (unless it can be proven that they are having no adverse effects on those species) and marine habitats important for biodiversity.
- MCS does not believe farming of new species is a long-term sustainable solution to mismanagement of capture fisheries but recognises that in some cases e.g. organic cod farming that does not rely on wild capture fish for feed, can relieve pressure on wild stocks.
- MCS believes that the finfish and shellfish farming and angling sectors must work closely together for mutual benefit.

**MCS believes that in order for open cage finfish farms to be considered as sustainable and sensitively operated they must as a minimum:**

- Be sited sensitively taking into full consideration the protection of local biodiversity, the carrying capacity of enclosed ecosystems such as sea lochs, and the needs of other users of the area to minimise conflict. Such sites should be subject to a full environmental assessment before farming takes place.
- Use feeds that do not rely on unsustainable/poorly managed/below safe limit fisheries as assessed by ICES/FAO. The use of trimmings and offal should be maximised, as in organic production, and should the substitution of marine protein with vegetable alternatives.
- Use feeding mechanism technology and set feeding regimes at levels that avoid wastage and reduce nutrient pollution to a minimum.
- Keep the use of synthetic pesticides and chemotherapeutants to an absolute minimum and use only in situations where welfare would otherwise be compromised or as part of a coordinated area management agreement.
- Introduce fallow periods of sufficient length (as determined by SEPA as a minimum) to allow marine ecosystems to recover from localised fish farming impacts, preferably utilising a site rotation system wherever feasible.
- Maintain stocking densities that minimise the proliferation of disease and sea lice and that ensure high welfare standards are achieved.
- Maintain high welfare standards in accordance with RSPCA Freedom Foods welfare standards for farmed Atlantic salmon.
- Ensure that the cage design, type and mooring mechanisms are sufficient for the energy of the environment in which they are being used. Cages, pens and nets should also be subject to regular inspection and maintenance to ensure they remain secure. Nets and pens should be cleaned using a method that does not include the use of antifoulants to prevent biofouling.
- Employ effective non-lethal predator control measures.
- Should have an Environmental Management System in place that monitors and minimises the environmental impacts the farming process generates and demonstrates year on year improvement.

For more comprehensive guidelines the MCS Principles and Criteria for sustainable aquaculture should be consulted.