Norwegian salmon farming: predictable and environmentally sustainable growth


Foto: Norge Sjømatråd

In a White Paper presented to the Parliament in March 2015, the Norwegian government proposed a completely new system for regulating the growth in the salmon farming industry. The proposed system ensures predictability, and relies on environmental indicators and established production areas. The proposal got broad support in Parliament.

The main objective of the White Paper was to discuss how Norway can maximise value-creation based on long-term predictable sustainable growth and improved environmental adaptation in salmon farming.

Environmental sustainability

The Governments view is that environmental impact should be the most important assessment criterion when deciding how the salmon farming industry can operate and how much it can produce.

With the current production technology (with net-pen sea cages), all salmon farming sites in a given area influence each other. Even if each individual site, in isolation, operates within acceptable limits, the overall environmental impact of several farms in the area could exceeded the carrying capacity of the area.

In other words, the environmental footprint of each individual site may be acceptable, but the combined footprint from all sites in an area may be unacceptable. Consequently, aquaculture cannot be managed at the level of the individual site only. In the future, it should be managed on the basis of production areas, in which acceptable environmental impact is defined and assessed.

The government will:

- Facilitate predictable and environmentally sustainable growth in the salmon farming industry.
- Let environmental sustainability be the most important issue to consider, when deciding on the further growth of the industry.

Environmental Indicators

The Government will select environmental indicators, where changes in the environmental footprint correlates with production capacity within a particular production area.

The Government have considered the following environmental impacts of aquaculture on the surrounding environment; genetic interaction/escapees, pollution/effluents, diseases/parasites, and harvesting of feed resources.

It is concluded that sea lice is the only appropriate indicator in the short and medium timeframe, relevant to be used in a rule-based system for capacity adjustment at the licensing level within defined production areas.

The selection of indicators may be adjusted, as environmental challenges changes; this will allow for inclusion of other (or removal of existing) indicators for environmental impacts in or from the system over time. An indicator on pollution (effluents of organic material and nutrient salts) will be considered developed.

The government will:

- Currently, use sea lice as an indicator in a rule-base system for capacity adjustments.

Norwegian Ministry of Trade,
Industry and Fisheries

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A predictable system

The Government intends to give the salmon farming industry a predictable business environment, by linking regular assessments of changing the production capacity to a defined and transparent system supporting those decisions.

The decision support system is based on environmental indicators and production areas. Such system will give the industry predictability, since the industry will know *which criteria* that must be met in order to achieve growth, *how often growth* will be considered, and *what will happen* when the environmental impact is acceptable, moderate or unacceptable, in a production area.

Following the policy of the Government to facilitate predictable and environmentally sustainable economic growth, the result of such a system is that the industry's production capacity should increase in areas with acceptable impact on the environment, while capacity in areas with unacceptable impacts should be reduced. In areas with moderate impact, the capacity should be frozen.

Environmental sustainability is ensured by the fact that environmental indicators are the major factor to be considered when decisions on further growth are taken.

The government will:

- Link changes in production capacity to a modular, rule-based system in defined production areas.
- Ensure predictability by letting the elements that form the basis for capacity change and the frequency of assessments, be retained over time.

The introduction and implementation of a new system

The Norwegian Government proposes to adjust the production capacity in the industry by six percent every second year. This will ensure sufficient time between the decisions on capacity change, to allow for assessing the environmental consequences of previous capacity adjustments. Growth may be offered, either through new licenses, or increased capacity of existing licenses. The principle of paying a fee for increased production capacity will be retained.

The first assessment of the adjustment of the production capacity of the industry is likely to take place in early 2017.The introduction of a rule-based system does not imply any significant changes as regards regulations applicable to the individual site. The Maximum Allowed Biomass at site level will still be determined taking into account the carrying capacity of the site.

Land-based aquaculture

Land-based aquaculture is currently subject to the same licensing requirements and procedures as traditional fish farming in sea-cages. The payment of a fee is considered an obstacle to productivity and competitiveness, and the Government will submit for public consultation a proposal that licences for land-based aquaculture should be allocated on a continuous basis without a fee.

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