



**SjømatNorge**

NORWEGIAN SEAFOOD FEDERATION

# SEAFOOD 2030

**A blue change of pace**



# NORWAY'S UNIQUE ADVANTAGE

Abundant fishing resources, an extensive coastline and vast sea areas give Norway a unique advantage in the harvesting and production of seafood. These natural conditions, combined with innovative and industrial development, have contributed to outstanding and positive growth in numerous coastal communities and increasing export income for the country.

Norway has a long tradition of harvesting from the sea and seafood processing. For thousands of years, we have been exporting processed products based on our marine resources. Since the 1960s, Norway has also developed as a leading mariculture expert. The seafood industry wants to exploit these advantages and, through increased knowledge about the ocean and innovation, harvest and produce more seafood in a sustainable manner.

The food industry is the largest industry in mainland Norway and the seafood industry is one of the biggest sectors within the food industry. The story of the Norwegian seafood industry is also the story of a primary production model that does not depend on government subsidies, but is export-driven and mostly profitable.

## **Seafood based on harvesting**

In Norway, we have excellent fisheries management that is recognised internationally for its sustainable approach to ocean resources. Norwegian fishing fleets harvest from strong stocks and emit relatively low levels of greenhouse gas emissions. The other environmental footprints for harvest-based seafood are also small. All of the major Norwegian fisheries are certified through various certification programmes in order to maintain natural diversity while harvesting and Norwegian seafood enjoys an excellent reputation in the markets in general.

However, harvesting from wild stocks in the ocean entails variations and fluctuations in the availability of raw materials to the seafood industry. Another major challenge is to ensure good conditions for trade with

other countries, as more than 90% of production is exported. The sustainability level of this part of the seafood industry can be strengthened considerably through increased processing in Norway, better use of trimmings from processing, as well as harvesting further down the food chain. The knowledge we have in Norway can contribute to more sustainable harvesting and increased food production in other parts of the world.

## **Seafood based on aquaculture**

Considering the history of the fisheries industry and its long tradition, aquaculture is a more recent approach in Norway. Aquaculture is a natural extension and development of fishing traditions and a globally growing food-producing industry. With vast sea areas and clean and temperate water exchange, Norway has truly unique advantages in terms of sea-based food production. The industry wants to exploit these advantages and, through further technological and biological development, produce more seafood in a sustainable manner.

Norway is currently the largest producing country of Atlantic salmon and the world's largest sea-based producer of marine fish. The Norwegian seafood industry is growing rapidly and boasts world-leading expertise in biology, technology and marketing. Solutions and expertise developed in Norway can also be used in other parts of the world, especially in regions with fewer opportunities to devote resources to research and development. Investments in the Norwegian aquaculture industry will therefore also contribute significantly to reducing the environmental footprint of aquaculture worldwide and to increased food production in other parts of the world.

**It will be of significant social advantage to utilise Norway's extensive fishing resources to supply healthy seafood to a world with a growing need for food supply stability, while facing a shortage of arable land and climate-friendly energy.**



## OUR VISION

The Norwegian seafood industry will become a world-leading producer of healthy food. We will provide world-class seafood, marine ingredients, production competence and technology. The Norwegian aquaculture industry will represent Norway's most important contribution to achieving the UN's Sustainable Development Goals through sustainable production methods and innovation.



## BACKGROUND

# SEAFOOD 2030

In 2012, Sjømat Norge (the Norwegian Seafood Federation, NSF) published the report 'Aquaculture 2025' - How to create the world's leading aquaculture industry'. In 2013, a similar report called 'Aquaculture 2030 - Think globally, act locally' was published. Both of these reports describe the ambitions of the seafood industry and the kinds of measures that should be initiated to achieve the potential of the sector. The work was based on extensive processes involving member companies in Sjømat Norge and was linked closely to relevant specialist fields.





This was followed by a lengthy government report (NOU 2014: 16 - Seafood industry - Clarification of the seafood industry's framework conditions) and a white paper on the seafood industry that was submitted to parliament (White Paper 10 (2015-2016)). Nevertheless, there is still a way to go until all opportunities for increased value creation in the seafood industry in Norway are fully utilised.

For the aquaculture industry, 'Aquaculture 2025' and the continuation of the sector's action plan against fish escapes (2007) and strategic plan for dealing with salmon lice (2009) have paid off in the form of a clear downward trend in escapes and better handling of the demanding salmon lice situation and reduced used of medication. In the course of 2017, the government implemented a new growth system and management of 13 production areas, referred to as the 'traffic light system'.

**The Norwegian seafood industry's 2030 document describes the vision and primary goals of the industry. Sjømat Norge is also continuing to work on a further concretisation of measures and how the industry should be managed in the future.**

Aquaculture 2030 explains the goals of the fishing and aquaculture industry, as well as measures that should be taken in order to achieve them. At the same time, we propose ways in which the authorities can manage the industries effectively.

Research and development, financed and carried out by both the community and the industry itself, will be an important prerequisite for success.

# AMBITIONS AND GOALS



All production of goods and services entails an environmental footprint through the use of resources and through emissions. Even though the footprints of the seafood industry are generally low, this does not exempt the market players from contributing to achieving the goal of human activities being sustainable from a global perspective.

Sustainable development revolves around meeting the needs of people in today's world, without destroying the possibility of future generations to meet their own needs. In 2015, the member countries of the UN formulated 17 sustainability goals and 169 sub-goals to be achieved by the year 2030. These goals reflect the three dimensions of sustainable development:

# 1. Environment

## 2. Economy

### 3. Social conditions

Sustainability goals connect the environment, economy and social development. They serve as a joint working plan for global efforts aimed at achieving sustainable development for nations, industry and civil society. Norway endorses the UN Sustainable Development Goals. Sjømat Norge's sustainability goals for the seafood industry are based on these goals.

The UN's Food and Agriculture Organization (FAO) and the Organization for Economic Co-operation and Development (OECD) explain in the report *The Ocean Economy in 2030* the significance of the ocean for solving many of the future challenges of the planet. The main prerequisite for the future development and growth of the seafood industry in Norway is that this must take place in an environmentally, social and economically sustainable way.

As for all other products and services, sustainable development in the seafood industry must be considered from an overall perspective. This also applies to the calculation of the environmental footprint and a strategy for achieving environmentally sustainable development is to develop goals and measures that reduce the footprint on the product level. Sustainable development goals must be ensured in all links of the value chain, i.e. harvesting, food fish production, processing and transport.

The ambitions of the fishing and aquaculture industries mean:

- Additional requirements associated with resource utilisation and a reduction in the total environmental impact (footprint) per unit produced.
- Additional requirements for increased food production and employment.
- Additional requirements for the proper regulation of the industry and its ability to adapt to these.

A total chain approach requires that politics take into consideration all links of the value chain, including a sustainable development of the seafood industry in Norway. The Norwegian seafood industry aims to be a qualitative leading producer of seafood within a global perspective, with good margins and attractive jobs.

A competitive and profitable seafood industry is decisive for achieving sustainable development goals. The increased processing of seafood in Norway contributes to environmental sustainability through better utilisation of all raw materials in a circular economy. Within the aquaculture industry, better resource utilisation and effective production will have the same results. Moreover, the seafood industry contributes to social and economic sustainability through secure jobs, local activity and value creation.

Seafood 2030 has based its efforts on eight of the UN Sustainable Development Goals:  
**Turn the page!**

We aim to contribute to the UN achieving the following sustainability goals related to **environmental sustainability**



**GOAL 12**  
**Safeguard sustainable consumption and production patterns.**

Ensure the sustainable management and effective use of harvestable resources in the ocean, reduce waste in the production and supply chain and in product development, continually pursue a reduction in the relevant environmental footprint.



**GOAL 13**  
**Stop climate change**

Contribute to compliance with the Paris Agreement to reduce greenhouse gas emissions.



**GOAL 14**  
**Life under water**

Protect and utilise ocean and marine resources in a manner that promotes sustainable development. Contribute to sustainable harvesting and production, integral management of marine resources, good documentation of environmental condition and use of resources. Harvest further down the food chain. Avoid dumping of by-catch and viscera.



**GOAL 15**  
**Life on land**

Contribute to ensuring that the use of land-based resources, including biological energy sources, does not reduce land areas, including forests. Increased harvesting of the biomass from the ocean in order to contribute to food security and to meet the demand for seafood must also be aimed at reducing pressure on land areas, biodiversity and ecosystems on land.

We aim to contribute to the UN achieving the following sustainability goals related to

## social and economic sustainability



### GOAL 2

#### **Eradicate hunger, achieve food security and improve nutrition**

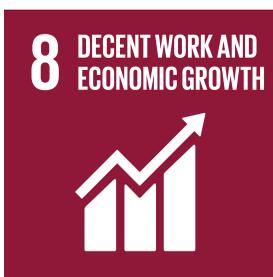
There is a shortage of seafood in the world and this leads to poorer public health, according to WHO. Norway can contribute to better food security and better nutrition through the increased production of seafood, harvesting species living at the lower trophic level, utilising raw materials and reducing waste and utilising bi-products as the raw materials in fish feed in keeping with the circular economy strategy. The current export volume meets the dietary seafood needs of more than 120 million people.



### GOAL 3

#### **Promote good health and quality of life for all.**

Production of seafood. (see other side)



### GOAL 8

#### **Decent work and economic growth and employment**

Gradually improving the utilisation of global resources in terms of consumption and production. Contribute to attractive jobs, good working conditions, profitability in all links of the chain based on equal competitive conditions and regulations directly applicable in production and turnover, in addition to ramifications both domestically and in the export markets. Moreover, a better utilisation of ocean resources as a food source. Increased processing will lead to an increase in residual raw materials, which in turn will lead to more jobs and value creation.



### GOAL 9

#### **Innovation and infrastructure**

Promote inclusive and sustainable industrialisation and innovation. Act as a motivator for the development of new technology, smarter production and more effective transport. Increased processing will lead to an increase in residual raw materials, which in turn will lead to more jobs and value creation.

**Sjømat Norge's contribution is concretised in the following main objectives for the Norwegian seafood industry. Goals and measures for achieving these objectives will be operationalised and concretised as the work progresses.**

## Environmental sustainability

### - Main objective:

| <b>1. The seafood industry is not to have a negative impact on biodiversity</b>  |  |
|--|--|
| <b>Harvest-based</b>   | <b>Aquaculture</b>   |
| Raw materials from marine environments that are used directly for human consumption or the production of fish feed are to originate from sustainably harvested stocks (Goal 14).   |  |
| Species living at the lower trophic level, including marine algae, zooplankton and phytoplankton, should comprise an important percentage of raw materials for seafood production, including for use in aquaculture (Goals 12, 13 and 14).   |  |
| Marine resources are to be managed in a sustainable manner. All marine resources, including 'new' ones that have not yet been subject to harvesting, must be managed in a manner that facilitates a stable supply for industrialisation and value creation, provided the harvesting takes place in an environmentally sustainable way (Goals 12, 13 and 14). | The aquaculture industry will contribute to maintaining Norwegian wild salmon populations. Monitoring of salmon lice and fish escape are a prerequisite for responsible operations (Goals 14 and 15).  |
| Work internationally to improve fisheries management and, in doing so, contribute to restoring stocks outside of Norwegian waters (Goals 12 and 13).   | The aquaculture industry will make it possible to trace escaped salmon back to their owner to contribute to protecting biodiversity (Goals 14 and 15).   |
| Establish effective monitoring measures to ensure that harvesting takes place within the established quotas and regulation compliance (Goals 12 and 13).   | The aquaculture industry will not reduce the potential for coastal fishing due to an impact on marine populations like coastal cod and shrimp (Goals 14 and 15).   |
|  | The aquaculture industry will reduce its environmental footprint by the year 2030. These goals will be achieved by, among other things, ensuring that a considerable percentage of fish feed comprises animal and vegetable by-products, insect products and/or products originating from the cultivation of microorganisms. The choice of raw materials for feed is to be a sustainable one that promotes biodiversity and protects the rain forest and other biotopes (Goals 12, 13, 14 and 15). |

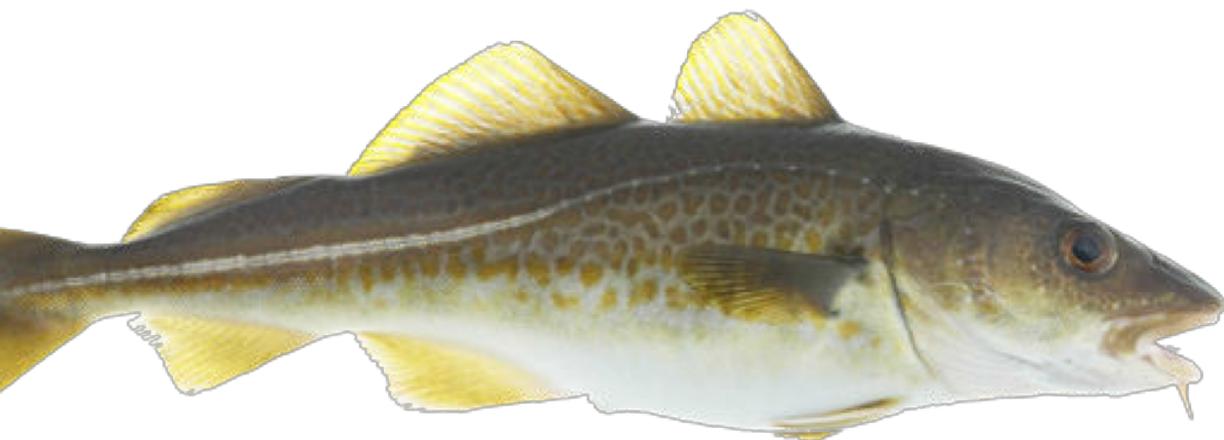
## 2. The seafood industry is to be part of the solution to climate challenges

| Harvest-based   | Aquaculture  |
|---|--|
| Increased processing in Norway will reduce transport volumes per unit of finished goods.  |  |
| The seafood industry is to be an active proponent of the use of environmental accounting throughout the value chain as a tool for documentation and basis for prioritisation (Goals 8, 12, 13, 14 and 15).  |  |
| The harvest-based industry is to use improved efficiency , reduced use of fossil fuels, choice of cooling mediums and choice of transport solutions to significantly reduce its climate footprint per ton of seafood throughout the value chain from harvest to market (Goals 12 and 13). | The aquaculture industry is to have a specific focus on energy efficiency, reduced use of fossil fuels, choice of cooling mediums and choice of feed raw materials in order to significantly reduce its climate footprint per ton of seafood by the year 2030 (Goals 13, 14 and 15). |



**3. The seafood industry is to use the ocean in a manner that promotes environmentally sustainable development**

| <b>Harvest-based</b>   | <b>Aquaculture.</b>   |
|--|---|
| All marine food production depends on a clean ocean. The seafood industry is to have complete control of its emissions related to seafood production (Goals 14 and 15).        |   |
| Seafood companies are committed to continuously contributing to cleanup activities in response to contamination from other human activity along the coast (Goal 14).           |   |
| Continuous knowledge sharing by the Norwegian seafood industry with the international seafood industry will contribute to greater sustainability (Goals 8, 12, 13, 14 and 15). |   |
| All raw materials harvested are to be brought to land (Goal 12).   | In increasing production, the seafood industry will not increase its discharge of organic materials and nutrient salts in a manner that threatens the marine ecosystem (Goals 14 and 15). |



# Social and economic sustainability

## - Main objective:

| 1. The seafood industry is to contribute to increasing global food production  |  |
|--|--|
| Harvest-based  | Aquaculture  |
| The sharing of knowledge and technology by the Norwegian seafood industry is to help the seafood industry and aquaculture industry in other countries increase its effectiveness in order to contribute to sustainable economic and social development and to significantly reduce its environmental footprint per ton of seafood (Goals 2, 3, 8, 9, 12, 13, 14 and 15). |  |
| Food-producing sea areas are to prioritise fishing and aquaculture operations (Goals 2 and 8).   |  |
| Residual raw materials are an importance source of profitability for the seafood industry. Better utilisation of residual raw materials will result in better resource utilisation and reduced waste (Goals 2 and 8).  |  |
| In increasing food production, the Norwegian seafood industry is to contribute to more sustainable harvesting of current commercial species, unexploited species and harvesting from lower trophic levels (Goals 2 and 3).   | In its resource-effective food production, the Norwegian aquaculture industry is to contribute to increasing food production to 5 million tons of healthy seafood by the year 2050 (Goals 2, 3 and 8). |
| Better raw material quality through certification of vessels and limitations in catches based on vessel size, load capacities, equipment and crews (Goal 8).   |  |



## 2. The seafood industry is to contribute to the positive development of Norwegian society

| Harvest-based  | Aquaculture   |
|--|---|
| <p>Norwegian value creation in the seafood industry is to be doubled by the year 2030. This will contribute to an increase in taxable income and more jobs (Goals 2 and 8).</p>  |   |
| <p>The seafood industry must be profitable enough to provide sufficient returns on invested capital and be attractive enough to attract new capital (Goals 8 and 9).</p>   |   |
| <p>The seafood industry must have access to capital in order to invest in the upgrading of production means and new technological solutions (Goals 8 and 9).</p>   |   |
| <p>Through innovation and improvements, the seafood industry is to satisfy new demands for products and production processes placed by the markets (Goals 8 and 9).</p>  |   |
| <p>Customs duties for seafood for our most important markets must be reduced in order to contribute to increased value creation in Norway. Free trade agreements must be prioritised. The dismantling of technical trade barriers in conflict with the WTO agreement must be prioritised. It is also important to maintain the EEA agreement. This will contribute to increased processing and the faster export of the products, which in turn will lead to increased quality and profitability (Goal 8).</p> |   |
| <p>A higher processing intensity in Norway provides a larger supply of raw materials for the marine ingredients industry (Goals 8 and 9).</p>  |   |
| <p>Government regulators must interpret and enforce the regulations uniformly throughout the country. Norwegian regulations must be formulated in a manner that prevents a distortion of competition in favour of foreign competitors. The seafood industry is to contribute to good resource management and documentation of marine harvests through effective regulations and accurate reporting (Goal 8).</p>   |   |
| <p>An effective, well-balanced and flexible direct market with standardised conditions for trade in seafood must be ensured (Goal 8).</p>  | <p>The seafood industry is to engage in dialogue on the local level in order to contribute to meeting the legitimate needs of the local community as much as possible (Goal 8).</p> |
| <p>Together with equipment suppliers and research institutions, the seafood industry is to develop and utilise new technology and, consequently, facilitate lower production costs and smarter production with a smaller environmental footprint and increased reuse/recycling of intermediate goods (Goal 2).</p>   |   |
| <p>There must be equal competition conditions for seafood companies in Norway, also with regard to opportunities for vertical coordination in the supply chain (Goal 8).</p>   |   |
| <p>The direct market must be organised such that fish from Norwegian vessels are offered to the Norwegian fishing industry (Goal 8).</p>   |   |

### 3. The seafood industry is to contribute to improving the global living standard

The seafood industry is to offer attractive and secure jobs with decent working conditions and in compliance with regulations (Goal 8).

Through its own production activities, as well as sharing technology, knowledge and high standards for the international seafood industry, the seafood industry is to contribute to respectable work and economic growth in those areas with considerable seafood production, supply raw materials or technology for the seafood industry (Goal 8).

The seafood industry is to maintain high standards for the health of workers, the working environment and safety in its own operations and to contribute to inclusive job opportunities and respectable working conditions, both at its own companies and at suppliers (Goal 8).

Regulations for working hours and the use of temporary employees must be adapted to the needs of the seafood industry and followed up on by the seafood companies through good contact with union representatives (Goal 8).



# SUSTAINABILITY GOALS IN A GLOBAL PERSPECTIVE

All food production impacts the environment to some degree.

In the discussion on what predictable and environmentally sustainable growth actually entails, it is important to consider this within a perspective that also includes the major global challenges and takes into account the positive social consequences on the national level of the further development of the Norwegian seafood industry.

Sjømat Norge (NSF) aims to ensure that seafood from fishing and aquaculture fulfill the UN Sustainable Development Goals through local and international measures.

Sjømat Norge (NSF) covers the entire value chain - from the fjord to the table - in the Norwegian seafood industry. Members of the association include around 550 companies with more than 12,000 employees in the fishing industry, aquaculture, feed production, biomarine industry, technology and service sectors.





Read more at  
[sjomatnorge.no](http://sjomatnorge.no)





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