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INTRODUCTION

This document describes the Responsible Sourcing Policy for Marine Ingredients developed by Nutreco and Skretting.

It is a policy document that addresses relevant topics for the industry, and also serves as a practical guide for the marine ingredients procurement staff to decide on what type of marine ingredients can be sourced for our global operations.

A crucial part of protecting the ocean is ensuring that fish stocks caught for direct or indirect human consumption are fished responsibly – within clearly defined, sustainable limits. Through our [Sustainability RoadMap 2025](#), we strive to ensure that our marine feed ingredients come from sustainable sources in the short- and long-term. We also actively work to align industry incentives to support processes that will lead to improved fisheries management. In addition to wild-caught fish, we are increasing the use of by-products (or “trimmings”) from the processing of fish for human consumption. It is estimated that 29% of fishmeal is derived from by-products¹. This also makes it possible for us to use feed ingredients that are not in direct competition with human nutrition, and which support the development of a circular economy.

Nutreco and Skretting strive to ensure that all of the marine-based feed ingredients that we use come from sustainable sources, where transparency on stock status and trends in biomass changes are publicly reported. This requirement includes the aim to align industry incentives that support processes leading to improved fisheries management. Our ambition is that all of the fishmeal and fish oil that we use originates from fisheries that are managed according to the [FAO Code of Conduct for Responsible Fisheries](#).

We also recognise that with a finite supply of fishmeal and fish oil, further growth of the aquaculture feed production will require further reduction of the inclusion levels of marine resources in these diets.

¹. IFFO (international Fishmeal and Fish Oil Organisation).

SCOPE

Our Responsible Sourcing Policy for Marine Ingredients refers to feed ingredients manufactured from fish and aquatic crustaceans. “Marine” in this context refers to both fish and aquatic crustaceans living in both salt- and fresh-water. Typical forms of marine ingredients are fishmeal, fish oil, fish protein concentrates and fish protein hydrolysate (FPH).

Aquatic plants and algae are not included in the scope of this policy.

Regulations and specifications in the [Nutreco Code of Conduct for Business Partners](#) are always valid for manufacturers of marine ingredients supplied to Nutreco and Skretting. Also, the specifications in the marine supplement are valid regarding the primary origin (species/fisheries) of marine ingredients.

The marine ingredients sourcing policy will in some areas give more detailed explanation, guidance and in some areas additional specifications. In addition, it also specifies the Nutreco and Skretting sourcing roadmap for marine ingredients. The different sustainability classes or levels of marine ingredients are put in context related to industry practice and definitions in the most important aquaculture feed standards.





MARINE INGREDIENTS SOURCING POLICY – CONSTRUCTED ON A RISK-BASED APPROACH

A responsible marine ingredients sourcing policy is important as it serves to use marine resources in a sustainable way and to not put the reputation of Nutreco and Skretting and the wider aquaculture industry at risk.

Marine ingredients originating from reduction fisheries (made from whole fish) must have the strictest sustainability sourcing criteria. This is because the aquafeed industry is by far the most important sector buying marine ingredients and is positioned to exercise significant purchasing power.

Marine ingredients and aquaculture feed certification schemes have less strict criteria on fishery management of the by-products originating fisheries than for whole fish. This is because one has priority on resource utilisation. Even so, Nutreco and Skretting are mindful that this must not be used as an opportunity to create and expand markets for marine ingredients coming from by-products that originate from poorly managed fisheries.



ORIGIN OF MARINE INGREDIENTS



Reduction Fisheries

A reduction fishery is one that uses (or “reduces”) its catch to produce fishmeal or fish oil rather than for direct human consumption. After the fish are caught, they are delivered directly to a marine ingredients processing plant. Marine ingredients from reduction fisheries can also be referred to as marine ingredients from “whole fish”.



Marine ingredients

Marine ingredients refer to products originating from fish and aquatic crustaceans living in both salt and fresh-water. Typical forms of marine ingredients are fishmeal, fish oil, fish protein concentrates and fish protein hydrolysate (FPH).



Aquaculture products

Wild fisheries

Marine by-products

The processing of fish for human consumption gives rise to by-products (also referred to as “trimmings”) in the form of heads, viscera, frames, skins and others such as tails, fins, scales, mince, blood, etc. These materials may constitute up to 70% of fish and shellfish after processing where fish fillet yield is species-dependent and is often in the range of 30-50% of the fish. The waste generated after processing is a valuable raw material from which fishmeal and fish oil may be produced.



WHERE DO THE MARINE INGREDIENTS COME FROM?*



1. If the fishery originates from a country with a high risk of slavery in the fishing sector (Annex 2 in the policy), the manufacturer in addition to Nutreco Code of Conduct for Business Partners must fulfil the criteria specified in the policy – **regardless of certification status**.

2. Global Sustainable Seafood Initiative. 3. Note that MarinTrust has separate criteria for all three origins of materials. 4. Sustainable Fisheries Partnership. 5. See Annex 1 in the policy. * References in Annex 1, 2 and 3



SKRETTING GLOBAL SOURCING TARGETS

By-products from aquaculture	By-products from wild fish catch	Whole fish	Sustainability class
 Target 100% by 31.12.2025	 Target minimum 50% by 31.12.2025	 Target 85% by 31.12.2025	
	 Target maximum 50% by 31.12.2025	 Target maximum 15% of global purchases 31.12.2025	
	 Buy until 31.12.2025	 Buy until 31.12.2025	
		 Buy until 31.12.2022	

MULTI-SPECIES FISHERIES

Multi-species fisheries are targeting numerous species and sizes simultaneously. Due to the wide variety of species taken, these fisheries have proven difficult to manage world-wide but there has been considerable progress in recent years. Multi-species fisheries are not pure reduction fisheries.

Normally, most of the catch goes to direct human consumption, with the remainder (small fish and fish considered not edible) used for fishmeal production.

Multi-species fisheries are the dominant type of fisheries world-wide but are particularly common in the tropics due to the high species diversity. MarinTrust has launched a pilot to be tested during the next three years with relevant fisheries such as mixed trawl fisheries in Southeast Asia. During this period, the pilot approach will work as a part of the MarinTrust Improver Programme (MarinTrust IP).

Skretting will only purchase fishmeal from tropical multi-species fisheries if:

- The fishery is part of a Fishery Improvement Project (FIP) that is accepted as part of the MarinTrust Improver Programme
- The fishmeal manufacturer has been accepted for the Improver Programme
- Fishmeal from fisheries mentioned above shall only be used by Skretting in geographical areas where fisheries mentioned above are located

RESPONSIBLE SOURCING CRITERIA FOR MARINE INGREDIENTS MANUFACTURERS

Marine ingredients manufacturers shall fulfil all general criteria in Nutreco's Code of Conduct for Business Partners.

Fisheries materials shall not be processed from illegal, unreported, and unregulated (IUU) fishing activities. This is regardless of products purchased by Skretting – it is a general requirement to their activity.

Marine ingredients manufacturers shall implement traceability systems that enable the original materials used in the products sold to Skretting to be traced back to the fishery/fisheries of origin, or to the farmed species and country of origin. Data that shall be recorded and reported to Skretting for each batch of fishmeal is described later in this document.



REQUIREMENTS FOR TRADERS

A trader in this context is a company/person who buys (takes legal ownership of) a batch of marine ingredients from the manufacturer, and then sells (invoices) the batch to another party. A company or person that does not take legal ownership over the marine ingredients is not a trader, but more a type of agent.

Traders must always declare the name (and factory) of the manufacturer. In addition, they must see to it that all of the information that Skretting requires from the manufacturer follows the batch of fishmeal and fish oil through the value chain.

If a trader sells a consignment of marine ingredients claimed to be MarinTrust certified, then the trader must provide a valid MarinTrust Chain of Custody certificate.



SUSTAINABILITY INFORMATION TO BE RECORDED AND TO ACCOMPANY EACH BATCH OF MARINE INGREDIENTS

The manufacturer will report to Skretting all normal information linked to the transaction (name and details of manufacturer, volumes, nutritional information and so on).

In addition, we would like to highlight information that must accompany each batch to decide or confirm the sustainability status of the marine ingredient.

Information to follow each batch of marine ingredients:

Information	Comment
Manufacturer information	Name, location and validity and certification schemes
Country of origin	Country where the batch was processed
Species that make up the batch	List the common name in English and also the Latin name. When a complete list of by-catch is declared, species that in total constitute less than 5% of the batch can be recorded as "other"
Certification status	MSC, MSC (Comprehensive) Fishery Improvement Project, MarinTrust, MarinTrust Fishery Improvement Project, No certification
Type of product	Whole fish or by-product
FAO fishing area	See FAO Fisheries & Aquaculture - FI fact sheet search

Information the manufacturer must record and that will be available upon request from Skretting

Information	Comment
Fishing vessel	Name of fishing vessel
Flag state	State where fishing vessel is registered
Jurisdiction where caught	Jurisdiction where the fish was caught
Fishing gear	Trawl, purse seine, other
Landing port of delivery/ manufacturing	Name and nationality of port

PUBLIC DISCLOSURE OF ORIGIN OF MARINE INGREDIENTS

Skretting will publicly disclose the origin of its marine ingredients through its sustainability reporting.

As a minimum, the information disclosed shall be:

- The main species and the fisheries used
- The ratio of whole fish (reduction fisheries) and by-products
- The certification status of reduction fisheries used

This information can also be used to support other initiatives of public disclosure in this area, for example, the [Ocean Disclosure Project](#).

Disclaimer:

Nutreco and Skretting are committed to sourcing sustainably and being accountable for criteria articulated in our policy and when specific incidences of non-compliance are brought to our attention, will act expeditiously to rectify and resolve.



ANNEX 1. RISK OF MARINE INGREDIENTS ORIGINATING FROM IUU FISHING ACTIVITIES

Illegal, unreported, and unregulated (IUU) fishing remains one of the greatest threats to marine ecosystems due to its potent ability to undermine national and regional efforts to manage fisheries sustainably as well as endeavours to conserve marine biodiversity.

IUU fishing takes advantage of corrupt administrations and exploits weak management regimes, in particular those of developing countries lacking the capacity and resources for effective monitoring, control, and surveillance. IUU fishing is also found in all types and dimensions of fisheries; it occurs on the high seas and in areas within national jurisdiction; it concerns all aspects and stages of the capture and utilisation of fish; and it may sometimes be associated with organised crime.

When a marine ingredients manufacturer is approved by Skretting and the fishery product(s) originates from a MarinTrust approved or MSC certified fishery, the risk of IUU fishing activity related to what is purchased is low because it is part of what is being evaluated in the certification process. But materials purchased from Class C sources defined in this policy can potentially be vulnerable to IUU fishing activities.



In order to have a better understanding of these risks and to also mitigate them, Nutreco and Skretting will use The [IUU Fishing Index](#), which provides a measure of the degree to which states are exposed to and effectively combat IUU fishing.

We have used the coastal filter by state responsibility of this index together with some additional countries based on the risk of lack of ability to enforce national laws and regulations.

Additionally, Nutreco is an active member of SeaBOS, where Task Force 1 addresses IUU fishing, endangered species and forced labour. This policy will be updated with publicly available progress reported by SeaBOS.

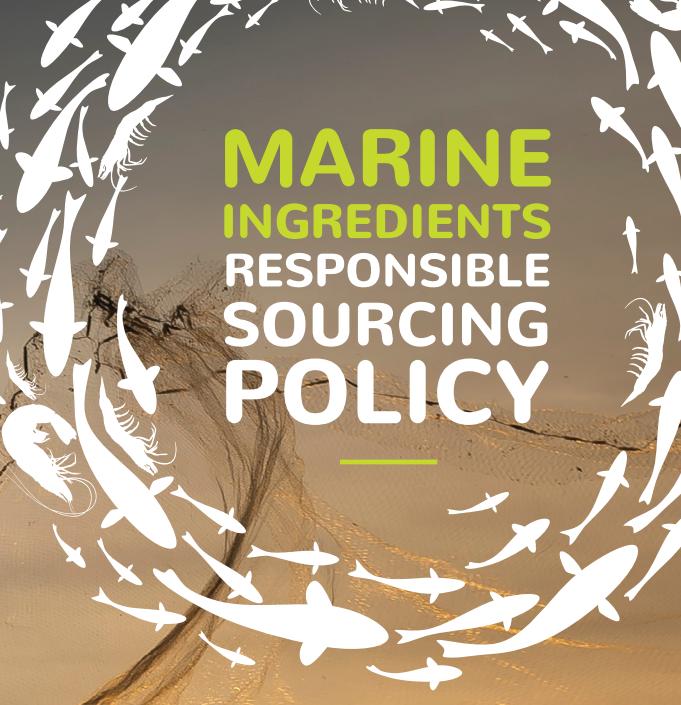
Skretting shall buy marine ingredients originating from these high-risk countries only in class A+, A, A- or B from 01st January 2023. Purchases in class C are not allowed from 1st January 2023. This is done to reduce the risk of receiving marine ingredients based on IUU material.

The list will be revised and updated according to developments in the market.

Countries ranked with highest risk for potential IUU fishing activities



Cambodia, Gambia, Kiribati, Mauritania, Myanmar, Oman, Philippines, Senegal, Seychelles, Somalia, Taiwan, Timor-Leste, Vietnam, Yemen



ANNEX 2. FORCED LABOUR (SLAVERY) IN THE MARINE INGREDIENTS SUPPLY CHAIN

Forced labour is defined by the International Labour Organization (ILO) as “work or service exacted from any person under the menace of penalty and for which the person has not offered himself voluntarily”. For the sake of simplicity in this document, we will refer to forced labour as “slavery”.

Nutreco's Code of Conduct for Business Partners demands that its suppliers do not engage in slavery. In this context, marine ingredients suppliers are no different to any other supplier Nutreco and Skretting. At the same time, we know that our marine ingredients suppliers are in turn supplied by many fishing vessels. In most cases, these fishing vessels are independent businesses and are not owned by the marine ingredients manufacturers. There have been numerous reports about incidences of slavery in the fishing sector. As such, Skretting is at risk of being supplied by fishmeal factories that have been supplied by fishing vessels using slave labour.

Fishing vessel slavery country risk table

We have constructed a risk table that consists of the Country Risk Rating according to the World Bank, the Slavery Index of the country and two factors that describe the risk of forced slavery in the fishing sector.



Table 2. High risk countries based on the 25 biggest fishmeal countries in the world

Country	Share of global production -Average 2019-2016 ¹	World Bank Index ²	Slavery Index ³	National Fisheries Policy ⁴	Wealth and Institutional Capacity ⁴	Total Risk score	Total Risk score
Philippines	1.2	3	3	3	3	12	HIGH
Thailand	5.7	3	3	3	3	12	HIGH
India	3.2	3	3	2	3	11	HIGH
China, PR	8.1	3	3	3	2	11	HIGH
Iran	0.7	3	3	3	2	11	HIGH
Russia	1.9	3	3	3	2	11	HIGH
Mauritania	2.3	3	3	1	3	10	HIGH
Mexico	2.6	3	3	2	2	10	HIGH
Vietnam	6.2	3	2	2	3	10	HIGH
Indonesia	0.9	3	3	2	2	10	HIGH
Pakistan	1.4	3	3	1	3	10	HIGH

1. Data from IFFO statistical yearbook 2020-21

2. The risk classification of countries relies on the Worldwide Governance Indicators from the World Bank, being aggregate indicators of governance 1996-2019. These determine the level of risks related to governance in sourcing countries. Classified as low (1), medium (2) and high (3) risk.

3. Based on the 2018 Global Slavery Index published by the organisation Walk Free. Classified as low (1), medium (2) and high (3) risk.

4. Countries classified by National Fisheries Policy (catch outside EEZ, distant water fishing, and subsidies), and Wealth and Institutional Capacity (GDP per capita, value landed per fisher, and unreported landings). Data published in study about forced labour in the fishing sector in the 2018 Global Slavery Index.

In some countries, marine ingredients manufacturers can own and operate their own fishing vessels. Note that in such cases, the working conditions aboard the fishing vessel(s) are included in Nutreco and Skretting's manufacturer assessment and are covered by the [**Nutreco Code of Conduct for Business Partners.**](#)

Criteria for marine ingredients suppliers located in high-risk countries

If Skretting sources marine ingredients from a supplier located in a high-risk country (risk rating >9.9), the following will apply:

1. Skretting shall request information from the marine ingredients supplier demonstrating that actions have been taken to mitigate the risk of bonded labour onboard the fishing vessels that are supplying it. The supplier shall be able to demonstrate that actions are part of their quality management system.
2. The information requested above shall be not older than two years.
3. If the marine ingredients manufacturers (in high-risk countries) are supplied by fishing vessels fishing in international waters, then the marine ingredient supplier must be audited before being approved. The focus of the audit shall be working conditions and legal compliance regarding fishing boats supplying them. The audit can be a third-party audit, or an audit conducted by qualified Skretting staff.





ANNEX 3. MARINE INGREDIENTS CERTIFICATION SCHEMES AND REFERENCES

A. Global Sustainable Seafood Initiative (GSSI) - scope fisheries

GSSI has developed a Global Benchmark Tool which provides formal recognition of seafood certification schemes that successfully complete a rigorous and transparent benchmark process, underpinned by the FAO Guidelines. Once a scheme successfully completes the Benchmark Process, the scheme is formally and publicly announced as "GSSI recognised". This means that they are "in alignment" with all 186 Essential Components and thus aligned with the FAO Code of Conduct for Responsible Fisheries.

It is important to note that GSSI recognition does not include a ranking of any kind, nor does it declare the scheme "sustainable". Additionally, the GSSI Benchmark Process looks at environmental, governmental and operational criteria. It does not include social issues.

The Marine Stewardship Council fishery certification is approved by GSSI.

B. Marine Stewardship Council (MSC) fishery certification

The Marine Stewardship Council (MSC) is an independent non-profit organisation that sets a standard for sustainable fishing. Fisheries that wish to demonstrate they are well-managed and sustainable compared to the science-based MSC standard are assessed by a team of experts who are independent of both the fishery and MSC. Seafood products can display the blue MSC eco-label if that seafood can be traced back through the supply chain to a fishery that has been certified by the MSC.

The mission of the MSC is to use its eco-label, for which it receives royalties from the licensing of products, and its fishery certification programme to contribute to the health of the world's oceans by recognising and rewarding sustainable fishing practices, influencing the choices people make when buying seafood, and working with partners to transform the seafood market to a sustainable basis.

C. MarinTrust programme

MarinTrust is a unique international certification programme for marine ingredients. MarinTrust works with third-party accredited (ISO 17065) certification bodies which audit fishmeal and fish oil producing factories and assess the responsibility of fisheries. The key principles of the MarinTrust standard are responsible sourcing and responsible production, with full traceability and product segregation as key requirements.

The programme consists of two parts. The marine ingredients factory is certified based on demonstrating responsible production practices and full traceability. Fisheries are assessed and then approved if they fulfil the criteria in the standard. A batch of fishmeal or fish oil produced by a MarinTrust certified factory and consisting of 100% approved fishery material is MarinTrust certified.



D. FishSource

FishSource was created in 2007 by the Sustainable Fisheries Partnership (SFP). FishSource compiles and summarises publicly available scientific and technical information about the status of fisheries into an easily interpretable form. It aims to make this information more accessible to seafood buyers and help them take actions to improve the sustainability of the seafood that they purchase.

FishSource evaluates the fishery within five areas:

- Score 1:** Is the management strategy precautionary?
- Score 2:** Do managers follow scientific advice?
- Score 3:** Do fishers comply with managers' decisions?
- Score 4:** Is the fish stock healthy?
- Score 5:** Will the fish stock be healthy in the future?

Detailed information can be found at [FishSource](#).

E. IUCN redlist

The International Union for Conservation of Nature (IUCN) is a membership Union composed of both government and civil society organisations. It harnesses the experience, resources and reach of its more than 1,400 member organisations and the input of more than 18,000 experts.

The IUCN Red List is a critical indicator of the health of the world's biodiversity. The IUCN Red List Categories and Criteria are intended to be an easily and widely understood system for classifying species at high risk of global extinction. It divides species into the following nine categories: Not Evaluated, Data Deficient, Least Concern, Near Threatened, Vulnerable, Endangered, Critically Endangered, Extinct in the Wild and Extinct. Detailed information: [IUCN redlist](#).

