

Executive Summary

Floundering Around:

An assessment of where European retailers stand on the sourcing of farmed fish



The purpose of this report is to shed light on industry-specific issues related to the environmental and food security impacts of the use of wild-caught fish as feed inputs in the aquaculture industry.

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This report was published in November 2021 by the Changing Markets Foundation, Feedback, Deutsche Umwelthilfe, L214, Aquatic Life Institute Europe, Acción Planetaria, Transición Verde and Carro de Combate.

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Executive summary

This report offers an overview of the positions of Europe's largest supermarket chains on the sustainable sourcing of farmed fish, which is a key issue for the global food retail sector.

It sets out to identify **leaders and laggards** according to their policies and practices in three priority areas:

- 1. The phase-out of wild-caught fish in aquaculture feed
- 2. Monitoring of mortalities on fish farms and blacklisting of producers with excessive mortality rates
- 3. Transparency in aquaculture supply chains and product labelling.

Our findings are based on a comparative review of six scorecards covering **33 major European food retailers** which were published by the Changing Markets Foundation and partners between March 2020 and May 2021. We have supplemented these with information gathered through correspondence with the same retailers between June and August 2021 in order to offer a comprehensive and up-to-date analysis of how the sector is positioned on this critical topic.

The global aquaculture industry has experienced staggering growth over the past five decades, going from supplying a mere 5% of fish 40 years ago¹ to accounting for over half of the fish we eat in 2021,² and this has come with significant environmental and social costs. Not only does the industry impact on marine biodiversity - most notably through the annual extraction of millions of tonnes of pelagic fish^A from ocean food webs for use in aquafeed - but it also leaves communities in West Africa, Latin America and other areas in the Global South without essential protein and with impaired access to traditional livelihoods. In addition to this, there are growing concerns about the impact of intensive fish rearing itself on the welfare of farmed fish and cleaner fish,^B which die prematurely in their millions every year as a result of poor farming practices.³

A Pelagic fish are those found near the ocean surface or in middle depths. They often move in large shoals, which greatly increases their detectability (see: <https://www.sciencedirect.com/topics/earth-and-planetary-sciences/pelagic-fish>).

B Cleaner fish are commonly used by aquaculture producers to control sea lice infestations on fish farms and are subject to high mortality rates. The use of species such as wrasse and lumpfish is widespread in Norway and Scotland, where they are deployed on salmon farms in their millions. Cleaner fish can be caught in the wild or farmed.

Aquaculture does have the potential to help relieve the burden on our oceans - if implemented sustainably. In order for it to fulfil this potential, the decoupling of aquaculture and fisheries is of central importance. Sustainable solutions already exist; they include alternative aquaculture feeds and the cultivation of species that do not require feed or that require fewer inputs. Greater transparency is also key to improving the aquaculture industry’s ecological footprint.

The aquaculture industry offers very little transparency regarding its production practices and routinely deflects attempts to draw attention to its murky underbelly: corporate reports and marketing materials highlight the sector’s low-carbon credentials, talking up its potential to relieve pressure on fish stocks in the wild and feed a growing global population with healthy protein.⁴ However, a significant body of scientific research and evidence from numerous investigations on the ground (including our own) indicate that, all too frequently, the reality does not match up to companies’ claims.

Citizens and civil society organisations in fish farming countries and regions which supply wild fish for aquafeed have spent years campaigning to raise awareness of the damaging impacts of the global aquaculture industry. However, their calls for greater accountability and transparency in the sector have largely gone unheeded. Instead, powerful multinational companies have been given free rein to expand production without being required to adopt any of the responsible social and environmental practices that would be commensurate with such growth. Negative externalities such as pollution from fish farms and fishmeal factories, decreased food security and damaged livelihoods have been kept off companies’ balance sheets, with the true cost of seafood farming foisted on society at large – more often than not, on communities that already live a precarious existence. For example, research published by Just Economics in February 2021 estimated that salmon aquaculture has produced private and external costs of US\$47 billion since 2013, with around 60% falling to producers and 40% to wider society.⁵ And in June 2021, a report by Greenpeace Africa and Changing Markets found that, each year, over half a million tonnes of fish taken from West African waters - which could feed over 33 million people in the region - are instead being converted to fishmeal and fish oil (FMFO) in order to feed farmed fish and mostly in Europe and Asia.⁶

A 2018 Eurobarometer survey showed that most EU citizens - 77% - buy fish from either a grocery store, supermarket or hypermarket.⁷ The total turnover of all European food retailers in 2018 was €3.5 trillion.⁸ With their enormous financial heft and role as intermediaries between aquaculture producers and the public, supermarkets are arguably among the most powerful players in the market. They are the arbiters of standards for food production throughout their supply chains; as such, they bear a critical responsibility to hold their suppliers to account. Shoppers are increasingly aware of this: polling by market research firm Mintel in 2021 found that 23% of consumers see retailers (e.g. supermarkets and online retailers) as ‘most responsible’ for protecting the environment.⁹

And yet, our analysis shows that, as farmed fish and seafood products begin to outnumber wild-caught species on supermarket shelves across Europe, European retailers are failing to perform adequate due diligence on their farmed fish and seafood supply chains.

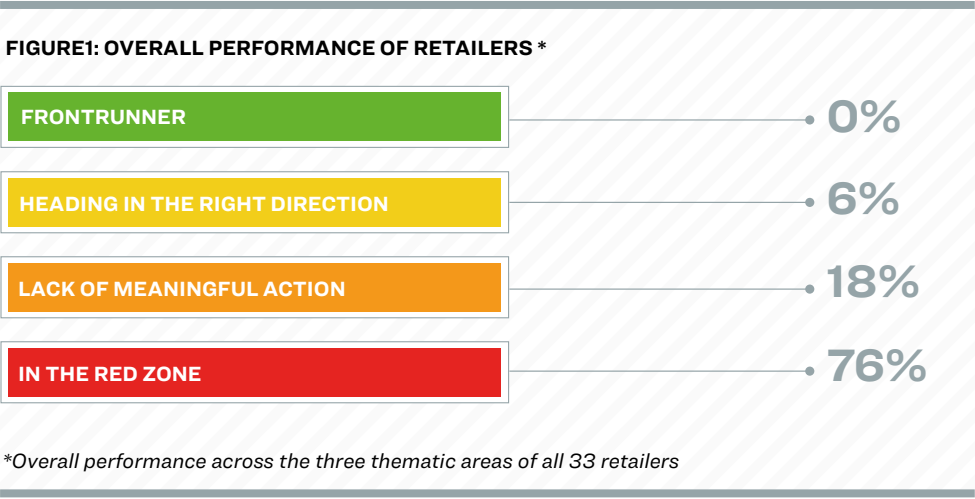
Main findings

This report presents a detailed analysis of the information we gathered from retailers in the UK, Germany, Spain, Switzerland, Austria and France between March 2020 and August 2021¹⁰ and finds that:

- No retailer has a clear target for reducing - and ultimately eliminating - wild-caught fish in feed, meaning that no retailer can guarantee that its aquaculture supply chain does not damage marine ecosystems, or people's livelihoods and access to food in countries where FMFO are sourced.

- Retailers are taking very inadequate steps to protect fish welfare in their aquaculture supply chains, resulting in the unacceptable mistreatment and suffering of billions of sentient beings on farms and at sea.
- Retailers are failing in their duty to inform their customers about the origin of the farmed fish and seafood they sell. What is more, our analysis suggests that some retailers are even failing to comply with their legal obligations regarding the labelling of farmed aquaculture products.

Our assessment of retailer performance distinguished between four main categories - ‘**Frontrunner**’, ‘**Heading in the right direction**’, ‘**Lack of meaningful action**’ and ‘**In the red zone**’ - in each of the three thematic areas and awards retailers a colour – green, yellow, orange or red – reflecting their overall performance. The general picture is dismal: no retailer achieved frontrunner status in any of the three thematic areas, and no retailer’s overall performance was sufficient to place it in the green zone. Three-quarters of retailers landed in the red zone, indicating a near-total lack of substantive policies to address the relevant issues.



Clear national trends emerged, with UK and French retailers demonstrating a more sophisticated understanding of their aquaculture supply chains, and a few individual retailers standing out as having substantive policies on certain key aspects.

In France, several retailers - **Carrefour**, **Groupe Casino**, **LIDL France**, **Groupement Les Mousquetaires** (parent company of **Intermarché**), **U Enseigne Coopérative** (parent company of **Système U**) - and two wholesalers - **Métro France**, **Sysco** - have recently joined an initiative which sets out to tackle aquafeed sourcing as a ‘priority’ by engaging with salmon producers and feed manufacturers. The group also plans to engage with their suppliers on the topic of fish welfare. While this is a positive development in principle, at an individual company level, our analysis shows that significant progress is required, with only three French retailers (**Auchan**, **Carrefour** and **Intermarché**) making it out of the red zone in our categorisation system.

As members of the Albert Schweitzer Stiftung initiative on animal welfare standards in aquaculture,¹¹ several German retailers - including **ALDI Nord**, **ALDI Süd**, **Edeka**, **REWE**, **LIDL Deutschland** and **Kaufland** - also deserve recognition for acknowledging and seeking to address key aspects of fish welfare such as humane slaughter. However, it is unclear to what extent this initiative has resulted in concrete improvements in retailers’ practices and policies.

Even so, there is significant variation among national retailers. In the **UK**, for example, the worst-performing supermarket, **Iceland**, failed to respond to our latest survey while **Tesco, M&S and Waitrose** engaged thoughtfully with our questions. Overall performance among German, Austrian and Swiss retailers was extremely disappointing, with only one retailer in each country being placed in the orange zone, none in the green or yellow zone and the majority in the red zone. Spanish retailers performed exceptionally badly across all three priority areas, with all 11 companies assessed landing in the red zone.

ELEVEN RETAILERS FAILED TO PROVIDE ANY RESPONSE TO OUR SURVEY, INDICATING A WORRYING LACK OF REGARD FOR THE ENVIRONMENTAL AND SOCIAL IMPACTS OF THEIR AQUACULTURE SUPPLY CHAINS. THESE WERE:



Frontrunners

None of the 33 retailers we surveyed provided us with a gold-standard response in any of the three areas we were assessing – feed, welfare/mortalities and transparency/labelling – leaving us unable to identify any frontrunners across the board.

Heading in the right direction

UK retailers dominated this category, with **M&S, Tesco** and **Waitrose** standing out as having the most progressive approaches on feed and fish welfare. On transparency, there are some promising developments to report, even if these fall far short of what is required.

Phase-out of wild-caught fish in aquaculture feed

While no retailer we surveyed has a truly exemplary policy on feed, French retailer **Auchan** informed us that it does have a target date for transitioning 50% of the farmed seafood it sells to feed which contains less or no FMFO.



By 2025, we want to switch 50% of our farmed products to a feed containing less or no FMFO (as is already the case with trout).

Swiss retailer **Coop Switzerland** told us that it is giving serious consideration to dropping the use of FMFO as an ingredient in fish feed. To begin with, it will only allow FMFO from fish-processing waste in its supply chain.

Tesco said that it is heavily involved in the promotion of alternative feed ingredients, and has created a roadmap on how to accelerate the inclusion of alternative ingredients in feed with WWF UK.¹² It is also developing an aquafeed strategy to set FMFO reduction targets for all species.

Credit: Shutterstock



Monitoring of mortalities and blacklisting producers with high mortality rates

While no retailer has a policy of automatically blacklisting farms with high mortality rates, **Waitrose** (UK) has detailed procedures in place for suppliers to report on mortality and escape rates, and told us that it would blacklist farms with high mortality rates if no improvement was forthcoming.

In addition, although **Tesco** (UK) has not defined an upper limit on mortalities and does not have a blacklisting policy, it does state that ‘in critical situations the supply into **Tesco** will be stopped’ and has put in place detailed procedures for reporting.

Transparency and labelling

UK retailers lead the way on supply chain transparency: since our initial engagement in 2020, several UK retailers have signed up to or added farmed fish to their entry on the Ocean Disclosure Project (ODP), with eight of the ten top UK supermarket chains disclosing information about their farmed fish supply chains through the platform.¹³ M&S, while not an ODP signatory, provides a degree of transparency regarding the species breakdown and origin of its farmed fish and shellfish via its online sourcing map.¹⁴

Several German retailers have set up traceability systems that give customers the ability to access some information on farmed seafood products. However, the information provided for aquaculture products does not appear to go much beyond what is required to be indicated on product labels by law; this means that key information such as the name of the farm and the composition and origin of feed ingredients is missing.

Lack of meaningful action

Retailers in this category either failed to respond to our questions altogether (see above) or did not have adequate policies in place.

Phase-out of wild-caught fish in aquaculture feed

Retailers in this category did not meaningfully engage with our call for the elimination of FMFO in feed, either by choosing not to cover this issue in their response or by superficially glossing over it. Some indicated that setting such a target would be impossible for technical reasons, while others chose to put their trust in sustainability standards rather than fully engage with the topic themselves. Spanish and Austrian retailers performed particularly badly on this issue.

Monitoring of mortalities and blacklisting producers with high mortality rates

Nearly half of retailers either failed to respond altogether or appear not to require reporting from their suppliers on mortalities and escapes. No retailer surveyed has a policy of blacklisting farms with high mortality rates.

Transparency and labelling

Retailers in this category failed to demonstrate that they had a satisfactory approach to transparency and labelling. Of the retailers which responded to us, a shocking 27% (13 retailers) do not include the producer or farm name on fish labels, do not require public reporting by their suppliers on the composition and origin of feed used on their farms, and do not appear to have any reporting on fish welfare indicators in place: **LIDL GB** (UK), **ALDI Süd** (UK), **Edeka** (Germany), **Kaufland** (Germany), **El Corte Inglés** (Spain), **Eroski** (Spain), **Alcampo/Auchan** (Spain), **Carrefour** (Spain), **Casino/Géant Casino** (France), **Denner** (Switzerland), **LIDL** (Switzerland), **Migros** (Switzerland).



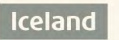
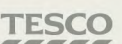
A dead salmon floating in a sea cage
Credit: Compassion in World Farming

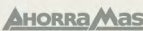
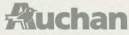
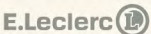
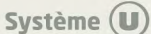


Finally, our analysis also highlights divergences in policies and practices on the sourcing of farmed fish within retailer groups which operate in more than one country. This was most striking in the cases of **LIDL**, whose various subsidiaries across Europe adhere to different standards and policies from country to country,^c and the retail groups **Carrefour** and **Auchan**, which provided substantive responses covering their French operations but did not provide a company-level response in Spain, preferring instead to be represented by a blanket response communicated by the Spanish retail sector trade associations ACES and ANGED which was superficial and lacking in detail.

^c We received no response from LIDL France or LIDL Österreich.

FARMED FISH: HOW DID DIFFERENT EUROPEAN RETAILERS SCORE IN OUR TWO RANKINGS?

RETAILER	COUNTRY	INITIAL SCORE (FIRST RANKING)	RESPONSE SUMMER 2021	OVERALL PERFORMANCE ACROSS 3 THEMATIC AREAS NOVEMBER 2021
	 UK	12%	✓	
	 UK	16%	✓	
	 UK	32%	✓	
	 UK	14%	✗	
	 UK	28%	✓	
	 UK	16%	✓	
	 UK	44%	✓	
Sainsbury's	 UK	20%	✓	
	 UK	60%	✓	
Waitrose	 UK	22%	✓	
	 GERMANY	15%	✓	
	 GERMANY	19%	✓	
	 GERMANY	23%	✓	
	 GERMANY	48%	✓	
	 GERMANY	38%	✓	
	 GERMANY	10%	✓	
	 GERMANY	21%	✓	
	 SPAIN	11%	✓ ANSWER BY ANGED/ACES	
	 SPAIN	N/A	✓	
	 SPAIN	9%	✓ ANSWER BY ANGED/ACES	
	 SPAIN	13%	✓	
	 SPAIN	13%	✗	
	 SPAIN	9%	✓ ANSWER BY ANGED/ACES	
	 SPAIN	11%	✓ ANSWER BY ANGED/ACES	

RETAILER	COUNTRY	INITIAL SCORE (FIRST RANKING)	RESPONSE SUMMER 2021	OVERALL PERFORMANCE ACROSS 3 THEMATIC AREAS NOVEMBER 2021
 	 SPAIN	11%	✗	
 	 SPAIN	11%	✗	
	 SPAIN	13%	✓	
	 SPAIN	13%	✗	
	 SWITZERLAND	33%	✓	
	 SWITZERLAND	35%	✓	
	 SWITZERLAND	19%	✓	
	 SWITZERLAND	19%	✓	
	 SWITZERLAND	13%	✓	
	 SWITZERLAND	6%	✗	
	 SWITZERLAND	8%	✗	
	 AUSTRIA	15%	✓	
	 AUSTRIA	33%	✗	
	 AUSTRIA	8%	✓	
	 AUSTRIA	21%	✓	
	 AUSTRIA	13%	✗	
	 AUSTRIA	21%	✗	
	 FRANCE	4%	✓	
	 FRANCE	31%	✓	
	 FRANCE	27%	✓	
 	 FRANCE	2%	✓	
	 FRANCE	4%	✗	
	 FRANCE	15%	✓	
	 FRANCE	4%	✗	
	 FRANCE	27%	✓	

FEEDING AQUACULTURE

Every year, millions of tonnes of forage fish and crustaceans are fished from the ocean and ground down into fishmeal and fish oil by the reduction industries

ROUGHLY **1/5** OF WILD CAUGHT FISH IS USED TO MAKE FISHMEAL AND FISH OIL



RETAILERS AND RESTAURANTS

Aquaculture is the fastest-growing sector of animal food production globally and now supplies more than half of the fish we consume

06

05

PROCESSORS AND DISTRIBUTORS

Farmed fish and seafood is processed for human consumption and distributed to retailers and restaurants.

01

RAW MATERIALS: WILD-CAUGHT FISH AND CRUSTACEANS

The raw materials are either processed at sea or in factories which are often located along the coast.

02

FISHMEAL AND FISH OIL FACTORIES

Some fishmeal and fish oil goes into animal feed. Most of it is used as an ingredient in aquafeed

ANIMAL FEED **28%***

AQUAFEED **69%***

*Fishmeal

03

FEED INDUSTRY
\$114
BILLION MARKET
VALUE IN 2017

04

FISH AND SEAFOOD FARMS

Aquafeed is the aquaculture industry's biggest cost

70% OF BUSINESS
EXPENDITURE

How does farming affect fish welfare?

SEA LICE



Lice feed by grazing on the surface of the fish and eating the mucous and skin. Large numbers of lice cause the loss of fins, severe scarring, secondary infections and even death.

Open cage salmon farming allows sea lice to flow into the wider marine environment where they latch on to wild fish



'CLEANER FISH' SUCH AS WRASSE ARE USED ON FARMS TO TREAT SEA LICE INFESTATIONS
THEY ARE KILLED AT THE END OF EACH GROWING CYCLE



DELOUSING METHODS SUCH AS PESTICIDES AND LICE-EATING FISH ARE DETRIMENTAL TO FISH WELFARE

BOATS KNOWN AS THERMOLICERS ARE ALSO USED BY SALMON FARMING COMPANIES TO TRY AND GET RID OF THE LICE



HUGE MORTALITY RATES

EVERY YEAR, MILLIONS OF FARMED FISH DIE AS A RESULT OF POOR HUSBANDRY



2010 - 2019

THE TOP 10 SALMON FARMING COMPANIES
RECORDED MORTALITIES OF

100 MILLION SALMON=COST US\$3.7 BILLION

FISH ARE INTELLIGENT, SENSITIVE CREATURES
THEY ARE CAPABLE OF SUFFERING AND FEELING PAIN
AND YET FARMED FISH ARE THE LEAST PROTECTED FARM ANIMALS



THE MAJOR CONTRIBUTING FACTORS ARE:



PARASITES



TREATMENTS



DISEASE



POLLUTION



ESCAPES

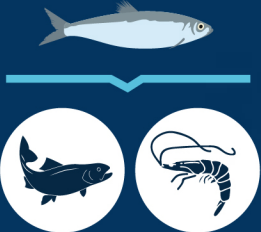


OVERCROWDING

HIDDEN LAYER OF SUFFERING

EVERY YEAR, BILLIONS OF WILD FISH ARE CAUGHT IN THE OCEAN TO FEED FARMED FISH AND PRAWNS

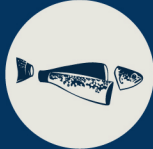
THEY ARE SOURCED FROM



CRUEL SLAUGHTER METHODS



FISH ARE SLAUGHTERED USING CRUEL AND INHUMAN SLAUGHTER METHODS, SUCH AS:



BEING GUTTED ALIVE



CRUSHING



SUFFOCATION

OVERCROWDING

FARMED FISH LIVE IN CROWDED CONDITIONS
Overcrowded fish are more susceptible to:



DISEASE



PHYSICAL INJURIES SUCH AS FIN DAMAGE



AGGRESSION



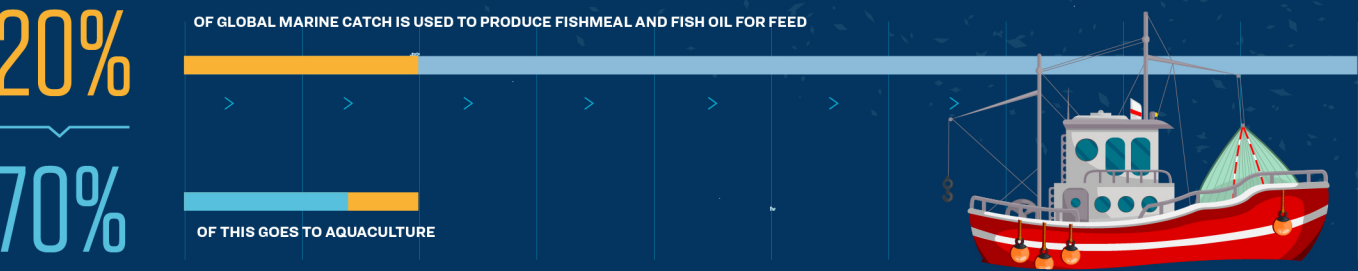
STRESS



POOR WATER QUALITY



LESS OXYGEN TO BREATHE



SPOTLIGHT ON MOWI®

HEADQUARTERS:
BERGEN, NORWAY

€3.8 BILLION
TURNOVER

THE WORLD'S LARGEST PRODUCER OF

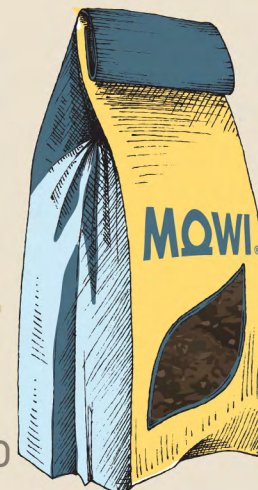
ATLANTIC
SALMON



ALMOST
HALF A MILLION
TONNES OF SALMON IN 2020

A MAJOR

MANUFACTURER OF
AQUAFEED



MORE THAN
HALF A MILLION
TONNES OF AQUAFEED IN 2020

MOWI® SELLS SALMON UNDER SEVERAL DIFFERENT BRANDS INCLUDING:



MOWI®

Kritsen



MOWI® SUPPLIES SALMON TO SOME OF EUROPE'S BIGGEST SUPERMARKET CHAINS

Auchan

co op



Waitrose



LIDL

Sainsbury's

Iceland

MOWI HAS FARMS LOCATED IN:



NORWAY



SCOTLAND



CANADA



CHILE



FAROE ISLANDS



IRELAND

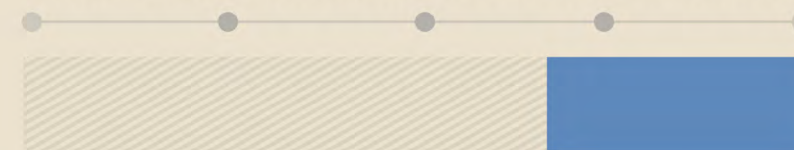


MOWI® SAYS IT IS LEADING A 'BLUE REVOLUTION'

BUT

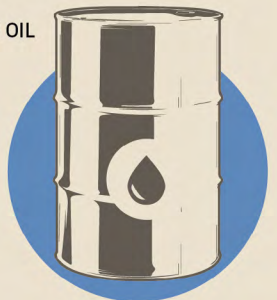
IT HAS A POOR RECORD ON SUSTAINABILITY AND FISH WELFARE

OVER ONE-QUARTER OF MOWI AQUAFEED
IS COMPOSED OF FISHMEAL AND FISH OIL (FMFO)



FISH MEAL

FISH OIL



EVERY YEAR MOWI USES MILLIONS OF WILD FISH TO FEED ITS SALMON



IN 2020 MOWI SPENT

US\$114 MILLION
ON FISH OIL

MOWI SOURCES FMFO FROM REGIONS LIKE WEST AFRICA AND LATIN AMERICA
WHERE FOOD INSECURITY AND MALNUTRITION ARE RIFE



IN 2020
MOWI®

SOURCED **18,617** TONNES
OF FISH OIL FROM PERUVIAN WATERS

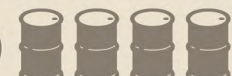
THE PERUVIAN FMFO
INDUSTRY IS PLAGUED
BY CORRUPTION AND
SCANDALS.



PERU IS FACING A FOOD SECURITY AND MALNUTRITION
CRISIS, WHICH IS ESPECIALLY IMPACTING SMALL CHILDREN

2018-2020
MOWI®

SOURCED **24,006** TONNES
OF FISH OIL FROM MAURITANIA



MAURITANIAN FISH OIL IS MADE FROM SARDINELLA. THE FAO CONSIDERS
SARDINELLA TO BE OVERFISHED THROUGHOUT THE ENTIRE WEST
AFRICAN REGION

SINCE 2010



50 MILLION

MOWI HAS **NO TARGET**
TO PHASE OUT OR REDUCE



THE USE OF WILD-CAUGHT FISH IN ITS SALMON FEED

FISH HAVE DIED ON OR ESCAPED FROM ITS FARMS OVER THE PAST DECADE

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