

Cheap Shrimp, High Costs

How the shrimp industry ransacked Ecuador's coast and undercut European markets



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Foreword: Land lawyer writes in anonymity

Duran, Ecuador.

For the safety of the community involved, as well as that of their legal team, the author of the following foreword has requested that we preserve their anonymity. Photos of housing being dismantled as armed police looked on could not be included for the safety of the photographer. However, Foodrise and Animal Welfare Observatory have reviewed photographic evidence of the eviction and documents from the UN Working group on the rights of peasants which corroborate the account below.

For the past 30 years I have worked as a lawyer defending the land rights of Ecuador's farming communities. Ecuador's agricultural industry is made up of powerful corporations which are ransacking our landscapes, destroying biodiverse life while simultaneously stealing land from poor communities who have historically lived, farmed and fished the lands and waters.

Since 2025, Ecuador's main revenue-generating export has been farmed shrimp, a trade so valuable, it has now surpassed profits from crude oil. Emerging in the late 1960s, this hugely destructive industry had driven the loss of 57% of Ecuador's mangrove cover by 2000. In some estuaries, mangroves have been nearly wiped out¹! The pace of the industry's growth has accelerated massively in the last 10 years, thanks in part to the EU-Ecuador trade deal which came into effect in 2017.

The shrimp industry hasn't played fair, pushing communities from their lands. Most farms were set up illegally but were eventually offered legal recognition by the President in 2008. Logging and mangrove clearances may have slowed since the turn of the century, but we still hear constant reports of incursions into fishers' and crabbers' coastal grounds. This is an opaque, dark and powerful industry. Coastal communities are fragmented, exploited and underpaid. It's impossible to keep up with all the industry's violations.

For the last few years, I have been representing a community in Duran, near Guayaquil, who have been farming rice in the area for over 50 years. A new shrimp farming company has been trying to evict this community from their agricultural land. The case has been escalated as high as the United Nations Working group on the rights of peasants.

Despite our best efforts, tens of families were evicted from their homes with the help of Ecuador's national police early in 2026.

With most shrimp products destined for export, Ecuador's food system, the nutritional and energetic basis of our very existence, is being torn apart while farmers and fishers can only watch on.

Across the planet we have an obligation to challenge the systems of injustice which separate us from the food we eat and the communities that feed us. Spanish and European consumers have the right to understand the damage their food does, I hope this report, Cheap Shrimps, High Costs, represents the beginning of an important conversation.

Executive Summary

Shrimp has become a staple seafood product across Europe and is widely available in supermarkets and restaurants. Spain plays a crucial role in both shrimp consumption and trade: it now imports more shrimp from Ecuador than is caught or farmed across the entire European Union. Yet the environmental and social harm behind this growing trade remains largely invisible to consumers. This briefing examines this growing industry and its ramifications for the environment and the communities affected by its expansion.

Key findings:

1. Spain leads a new European seafood market disconnected from European seas

- Cheap Ecuadorian shrimp is reshaping European seafood markets. In 2024, Ecuador supplied 54% of EU warmwater shrimp imports, with import volumes more than three times higher than EU wild shrimp landings^{2,a}.
- Spain's port of Vigo is the primary EU entry point for imported Ecuadorian shrimp³.
- Spanish fishing giants Nueva Pescanova and seafood suppliers Profand are investing heavily in the development of Ecuadorian shrimp⁴.

2. Big Shrimp has ransacked Ecuador's coast, pooling profit into a small number of corporations

- Ecuador's shrimp industry has expanded at extraordinary speed. Shrimp exports grew from roughly 40,000 tonnes in 2000 to an estimated 1.2 million tonnes in 2023⁵. Between 2024 and 2025 export sales increased by approximately 20%, totalling USD 8.4 billion, **surpassing crude oil as Ecuador's largest export sector**⁶.
- Economic power within the sector is increasingly concentrated. In 2024, Ecuador's two largest shrimp exporters accounted for just under one-third of export value among the country's leading exporters⁷.
- European and US feed companies are becoming major beneficiaries of shrimp industry growth. Feed production is expanding rapidly alongside shrimp exports, increasing demand for soy and other agricultural inputs.
- Industrial shrimp aquaculture is expanding with limited public scrutiny. Shrimp is now the fourth most consumed seafood product in Europe, with over half of shrimp consumed originating from aquaculture production⁸.
- Ecuador's shrimp supply chains are extensive, fragmented and difficult to fully trace. Research by World Forest ID found that 84% of tested farmed shrimp retail products did not match their declared country of origin⁹.

3. The expansion of shrimp farming is transforming Ecuador's coastal ecosystems, driving the global climate crisis and threatening livelihoods.

- Spanish and European consumption of Ecuadorian farmed shrimp is an extractive process of nutrient colonialism. New research shows **it takes 178,000 tonnes of wild fish to produce the farmed shrimp eaten in Europe each year, all of which is all caught off the coasts of Ecuador, Peru, and Chile**. Alternatively, this fish could be consumed locally within South America or left in the wild to support highly pressured ocean ecosystems^b.
- Ecuador's shrimp farming industry now occupies roughly 220,000 hectares of land¹⁰. Between 1969 and 1999, Ecuador's mangrove cover decreased by 57%, making way for the world's largest industrial shrimp farming area¹¹. Some estuaries in the Gulf of Guayaquil have lost up to 90% of their mangrove cover¹².
- Soy-based shrimp feed is emerging as a new climate threat. **Between 2018 and 2023 greenhouse gas emissions from feed producer Skretting tripled**¹³. As shrimp production expands, demand for soy feed is increasing, contributing to land use change, deforestation and global warming.
- Shrimp industry expansion is leading to community conflicts. Field research indicates that disputes over land, mangroves and coastal livelihoods remain ongoing in areas affected by shrimp aquaculture expansion¹⁴.
- Labour conditions remain precarious across parts of the sector, with serious reports of concerns of workers' rights¹⁵. According to the International Labour Organisation, 63% of Ecuador's aquaculture workers are informally employed¹⁶.

a In 2023, import volumes of Ecuadorian shrimp into the EU were 167,900, while landings of all shrimp species within the EU totalled 47,400 tonnes (EUMOFA 2025)

b This is the result of unpublished research shared by Dr. Joeri Scholtens at the University of Amsterdam in confidentiality with Foodrise. Methodologies cannot be shared until publication (expected 2027) but Foodrise or Dr. Scholtens can be contacted for further information.



Dead shrimp fresh from the farm.

1. Europe's seafood market is disconnected from European seas

Industrial shrimp aquaculture has expanded rapidly over the past decade, making shrimp one of Europe's most consumed seafood products. Ecuador has emerged as a dominant supplier to the European market, particularly through industry links embedded in Spain.

A note on terminology: Throughout this report, 'shrimp' refers to Ecuador-produced whiteleg shrimp (Litopenaeus vannamei), unless otherwise explicitly stated. For further technical definitions or clarifications see the Glossary.

1.1 Farmed Ecuadorian shrimp is flooding European markets, undercutting European fisheries

Shrimp (all warmwater and coldwater species) is the EU's most valuable and the fourth most consumed wild fishery product, following tuna, salmon and Alaskan Pollock. However, shrimp available on the EU market is increasingly likely to be farmed, with aquaculture now supplying 58% of shrimp consumed in the EU¹⁷. This reflects a growing international trend, whereby global consumption of farmed fish now exceeds that of wild fish. Within the EU however, 72% of seafood still comes from wild fisheries (see Table 1).

The EU's four favourite seafood are all sourced from outside EU waters (see Table 1). The problematic nature of tuna, often caught by long-distance Spanish and French fleets operating in the Pacific and Indian Ocean¹⁸, as well as salmon, farmed in Norway and Scotland, currently the most consumed farmed fish in Europe, have been well documented¹⁹. Far less attention, however, has been given to the rapid expansion of industrial shrimp aquaculture.

Table 1: European consumers' favourite fisheries products in 2023 (EUMOFA 2025).²⁰

Products	Per capita consumption (kg, LW)	Consumption evolution 2023/2022	% wild	% farmed
Tuna	2.68	-9%	98.2%	1.8%
Salmon	2.39	-5%	5.7%	94.3%
Alaska pollock	1.78	7%	100.0%	0.0%
Shrimps	1.59	-6%	42.0%	58.0%
Cod	1.53	-6%	99.9%	0.1%
Mussel	1.14	-6%	7.1%	92.9%
Hake	1.01	-2%	100.0%	0.0%
Herring	0.98	12%	100.0%	0.0%
Squid	0.61	-16%	100.0%	0.0%
Surimi	0.54	-10%	100.0%	0.0%
Mackerel	0.5	-9%	100.0%	0.0%
Sardine	0.49	-10%	100.0%	0.0%
Trout	0.46	-1%	0.9%	99.1%
Saithe (=Coalfish)	0.36	-3%	100.0%	0.0%
Gilthead seabream	0.33	2%	2.4%	97.6%
Other products	6.48	2%	77.4%	22.6%
Total	22.89	-3%	71.5%	28.50%

1.2 Farmed shrimp is changing the economics of Europe's most valuable wild fishery

Table 2: Most Important Main Commercial Wild Fish Species Landed in the EU. Nominal Value In 2023, % Of Total And % Variations 2023 / 2022.

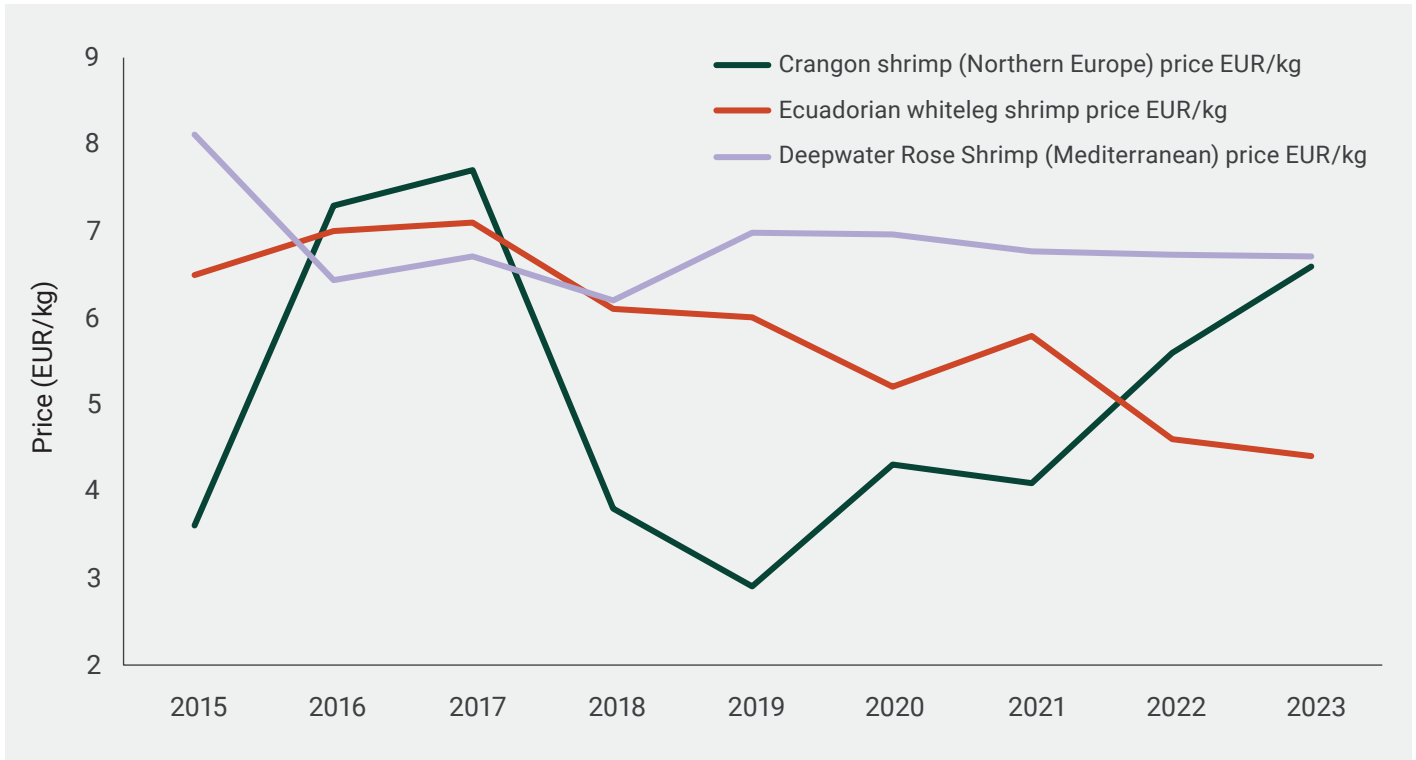
	million euros	% of total	% variation 2023/2022
Shrimps	445	8%	-12%
Hake	411	7%	-5%
Herring	240	4%	145%
Mackerel	221	4%	-4%
Common sole	208	4%	-8%
Anchovy	206	4%	-2%
Monk	204	4%	15%
Norway lobster	193	3%	-14%
Squid	189	3%	-19%
Swordfish	185	3%	17%
Others	3098	56%	-13%
Total:	5.59 billion		

In 2023, imports of Ecuadorian warmwater shrimp into the EU totalled 167,900 tonnes with a value exceeding EUR 897 million^c. This follows a trade deal signed between the EU and Ecuador in 2017, since then imports of Ecuadorian shrimp have grown by 94% in volume and 19% in value²¹. By comparison, EU wild shrimp landings fell to 47,000 tonnes in 2023. Shrimp remains the highest-value wild fisheries product in the EU in terms of price per kilo, but Ecuadorian farmed shrimp fetches significantly lower prices. In 2023, Ecuadorian shrimp imports were sold at an average price of EUR 4.6 per kilogram, compared to an average landing price of EUR 6.57 per kilogram for shrimp caught by EU vessels²². According to the available market data, Ecuadorian shrimp prices have declined from approximately EUR 7.00/kg in 2017²³.

Figure 1 shows the changes in prices of EU wild caught Crangon shrimp and Deepwater rose shrimp, the two shrimp species which make up the majority of shrimp landings in the EU. While Crangon shrimp faced an unexpected bumper year in 2018, due to favourable conditions, the following years saw mismanagement of stocks as well as ageing fleets and the COVID pandemic, this pushed prices to rise once again, with significant year on year increases from 2021 to 2023²⁴. Meanwhile Ecuadorian shrimp prices have remained relatively stable, becoming cheaper year on year and consistently offering a better rate than deepwater rose shrimp caught in the Mediterranean and becoming noticeably cheaper than Crangon shrimp since 2022.

^c Based on the growth values between 2023 and 2024 presented in EUMOFA, "Monthly Highlights (July 2025): Development of the Trade Flows of Fishery and Aquaculture Products between the EU and the Andean Community," Monthly Highlights, July 2025, <https://eumofa.eu/market-analysis#monthly>.

Figure 1: Price (EUR/kg) of imported Ecuadorian shrimp compared to Europe's leading wild caught shrimp species – Crangon shrimp (Northern Europe) and Deepwater Rose shrimp (Mediterranean)^d



Ecuador has established itself as the largest supplier of imported warmwater shrimp to the EU. In 2024, Ecuador accounted for 54% of EU warmwater shrimp imports, ahead of India (13%), Venezuela (12%), Vietnam (8%) and Bangladesh (4%)²⁵. Imported Ecuadorian shrimp now occupies a major place in European seafood markets due to high production volumes, availability and comparatively low and stable prices.

Imported Ecuadorian shrimp now represents 3.5 times more volume of wild shrimp landed in European waters and, in total market value, double the value of EU wild shrimp landings²⁶. As lower-priced imports continue to expand, imported farmed shrimp is increasingly displacing wild shrimp on European seafood markets.

^d Data for Crangon and Rosewater shrimp taken from EUMOFA Landings Database: [Landings | European Market Observatory for Fisheries and Aquaculture Products \(EUMOFA\)](#), data for Ecuadorian imports taken from Eurostat trade database: [Statistics | Eurostat](#).

1.2 Spain has become Europe's main market for Ecuadorian shrimp

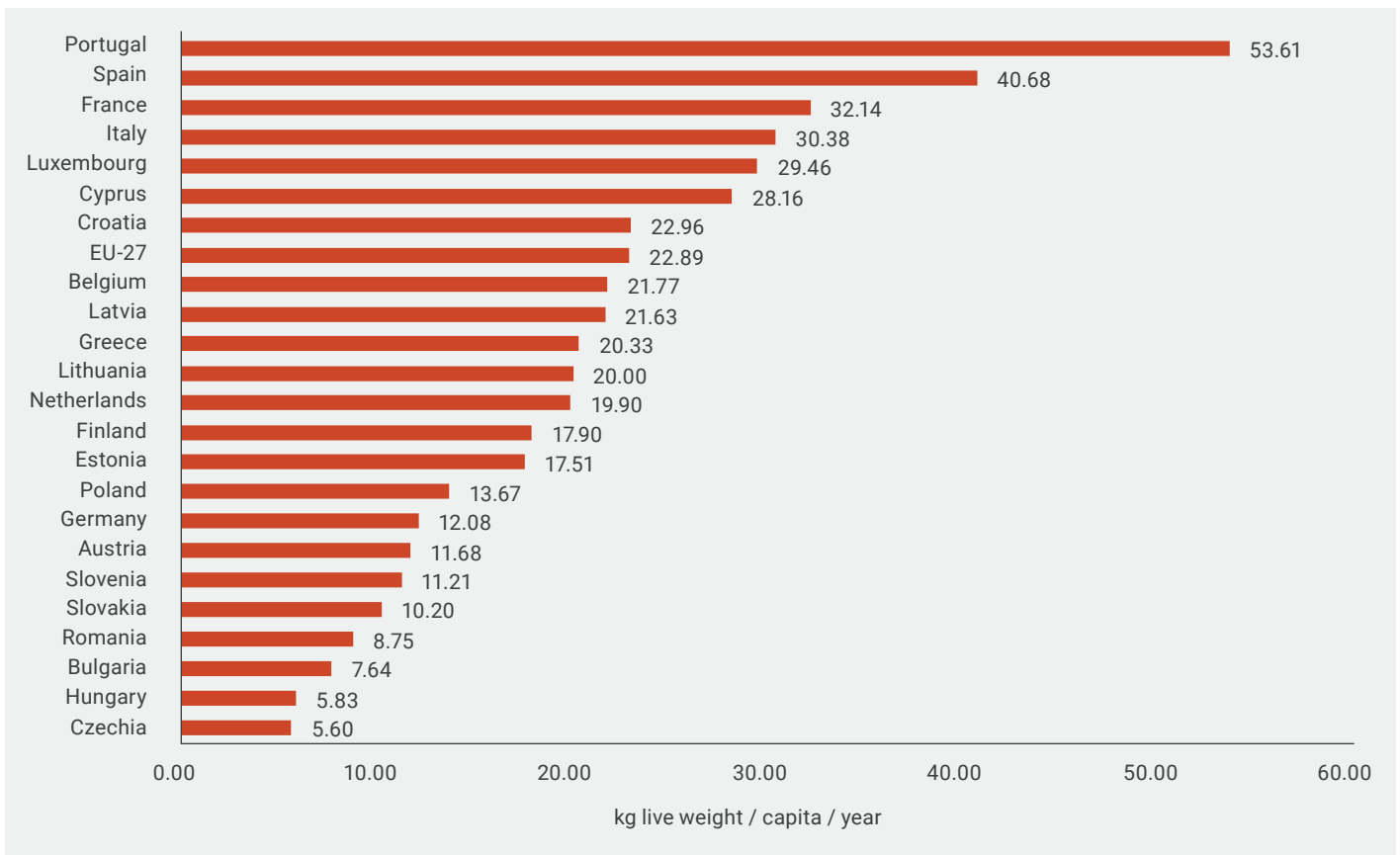
Spain is the European Union's largest importer of fisheries and aquaculture products, with imports valued at EUR 5.6 billion in 2024²⁷. It is also one of Europe's largest seafood consuming countries, ranking second after Portugal in fishery and aquaculture products consumption per capita within the EU (see Figure 2). Spain's seafood relationship with Ecuador extends beyond shrimp imports alone: long-distance tuna fleets operating from Ecuador also supply European markets²⁸.

Spain is the largest European destination for Ecuadorian shrimp. More than one-third of Ecuadorian shrimp entering the EU is imported into Spain, totalling over 56,000 tonnes in 2022²⁹. Significant import volumes also enter France

(36,000 tonnes), Italy (25,000 tonnes) and the Netherlands (23,600 tonnes)³⁰. Section 2 of this briefing describes growing corporate involvement from Spain in Ecuador. Nueva Pescanova, Spain's largest industrial fishing company, operates Ecuadorian farms through its subsidiary Promarisco, and while Profand, Spain's most valuable seafood supplier, is gaining influence through newly-acquired farms³¹.

On a yearly basis, Spain imports more shrimp from Ecuador (56,000) than is caught or farmed across the entire European Union (47,000)³². Imported shrimp primarily enters the EU through the ports of Vigo in northwest Spain and Rotterdam in the Netherlands, which often serve as entry points for onward distribution to other EU member states³³.

Figure 2: Per capita apparent consumption of fishery and aquaculture products by EU member state in 2023. Graph by EUMOFA (2025)



1. Europe's seafood market is disconnected from European seas



Workers putting shrimp in orange crates next to metallic vats

2. The evolution of the shrimp industry: from wild larvae to engine of profitability

Since the late 1960s shrimp farming has transformed from a small artisanal practice into a highly-controlled industry. Every aspect of a shrimp's life from genetics, water chemistry right through to feed composition have become sites of intense research and competition as companies seek to maximize profitability from a shrimp's 90 day growth cycle. Industry innovation has also been **defined by a series of growing environmental catastrophes, from initial mangrove and agricultural land clearances, through to El Niño events and viral epidemics**, biosecurity and environmental control define the industry as it is today. The use of **wild fish in feed is also diverting much needed marine nutrients away from the South American coast towards European consumers, in an act of nutritional colonialism.**

This section tracks the life of a shrimp through these developments, explaining how controlling shrimp biology became an industry capable of overtaking crude oil as Ecuador's most profitable export. Ecuador's shrimp farming industry includes 18 feed mills, 20 broodstock facilities, 180 hatcheries and around 80 processing plants³⁴. Alongside land use and infrastructure, shrimp farming requires two critical inputs, shrimp larvae and shrimp feed. Shrimp farming further requires constant management and monitoring of water, with the balancing of natural and artificial micronutrients alongside management of oxygen levels, disease and shrimp predators.



A conveyor, buckets and other equipment inside a laboratory that produces larval and postlarval shrimp destined for shrimp farming.

2.1 Feed production is emptying oceans and contributing to global warming

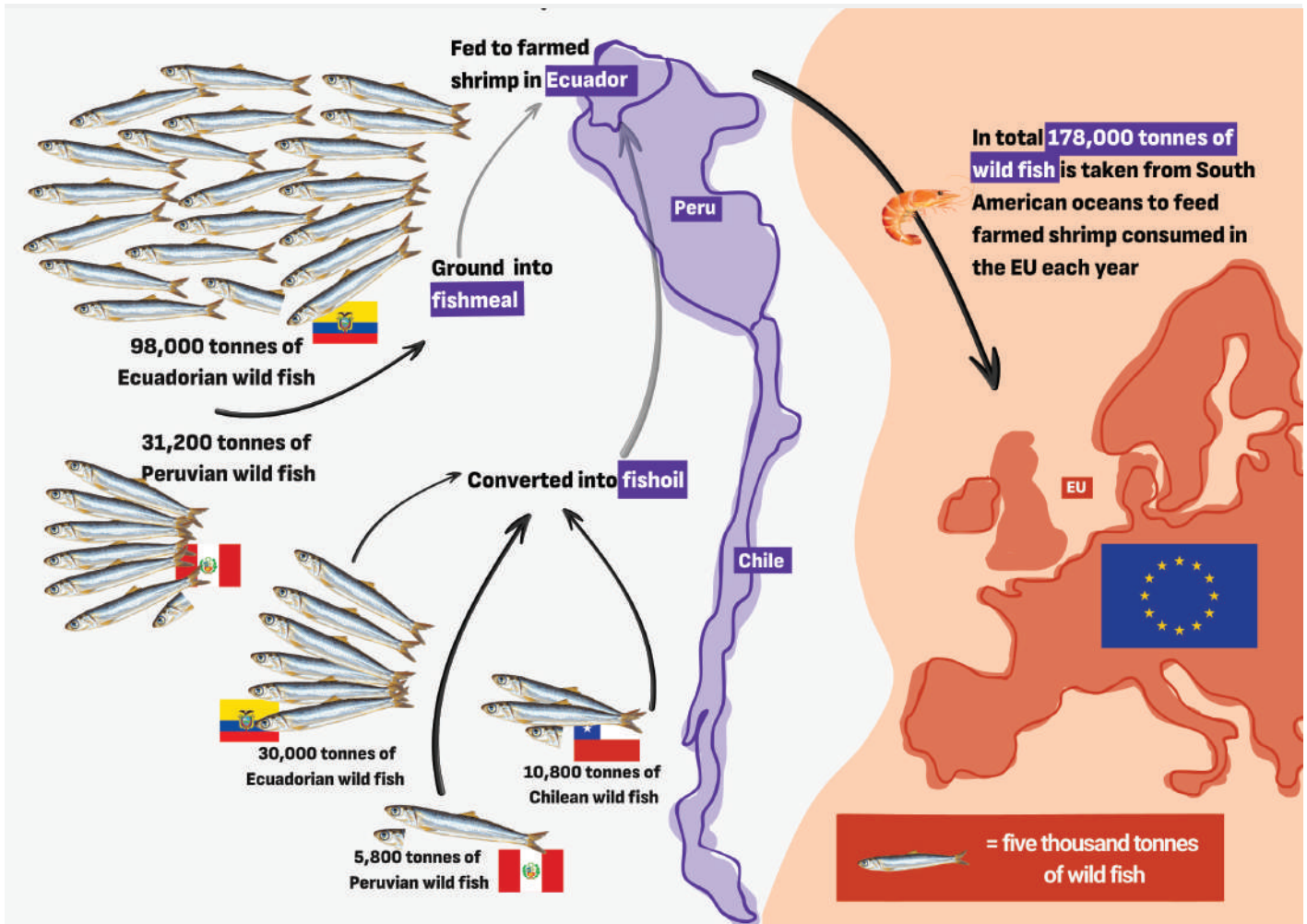
Much of a shrimp's environmental impact comes upstream of the farming process itself, at the feed production stage. A farmed shrimp's diet consists of both feed pellets and natural grazing of nutrients in the water they live in. Feed typically has a 35% protein rate and is made up of:

- **Fishmeal (roughly 20%) and fish oil (roughly 1.5%).**³⁵ Seafood Watch (2021) estimates that 53% of fishmeal and 69% of fishoil sourced for Ecuadorian shrimp farming comes from wild fish sources, likely Peruvian anchoveta^e, with the remainder sourced from Ecuadorian's tuna fisheries byproducts or 'trimmings'.³⁶
- **A mix of soybean meal, wheat flour and corn (78.5% or remainder)**³⁷.

In 2024, globally 18 million tonnes, or 9.2% of all fish caught, of fish produced ended up in the production of fishmeal and fishoil³⁸. Peruvian anchoveta is one of the most significant sources of fishmeal and fishoil (producing roughly 20%³⁹), however the availability of anchoveta sees significant fluctuations according to El Niño events. **In 2023 the Peruvian anchoveta season was cancelled due to the effects of El Niño. This led to the closure of fishmeal plants for the first time in 30 years, costing the industry US\$1 billion**⁴⁰. At the time of writing (June 2026), Peruvian authorities have twice extended a ban on the fishing of anchoveta for the protection of juvenile fish, due to ongoing coastal El Niño conditions⁴¹. A study published in 2023 offers an "optimistic" trajectory for Peruvian anchoveta populations, researchers predict a 14% reduction in biomass each decade until the 2050, followed by a collapse⁴². **Populations may only recover by the end of the 21st century.** In mid-2026 fishmeal prices are already starting to rise in response to the latest El Niño-induced ban.

e Peruvian anchoveta is the biggest international source of fishmeal and fishoil and Sánchez et al. (2023) reference anchovy when describing the makeup of fishmeal and fishoil in Ecuador, although they do not mention the exact proportion anchovy makes up within the shrimp industry. Foodrise has been unable to independently calculate the feed proportions for Ecuadorian shrimp, with data limited and varied and shrimp producers and feed producers offering little transparency on their exact feed compositions. It is unclear how Seafood Watch has calculated these proportions

Figure 3: Infographic presenting the findings of Dr. J. Scholtens, Dr. C.Rammelt and R. Cardelús Ylla Català in a forthcoming publication. Their research uses Roberts et al. (2024) paper 'Feeding Global Aquaculture' to calculate country specific fish footprints of EU salmon and shrimp consumption, by calculating exact amounts of raw wild fish put into fish feed. Foodrise or Dr Scholtens can be contacted for further clarification



According to research (see Figure 3, publication forthcoming) from University of Amsterdam Dr Joeri Scholtens, Dr. C.Rammelt and R. Cardelús Ylla Català, **EU imports of Ecuadorian shrimp represent 178,000 tonnes of embodied wild fish taken from South American coastlines^f.** This includes 130,000 tonnes of fish embodied in fishmeal fed to shrimps and 48,000 tonnes of fish embodied as fish oil fed to shrimps. These 178,000 tonnes of wild fish embodied in shrimp feed are destined for European consumers, yet 75% of the wild fish sourced for the fishmeal comes from Ecuador, and a further 24% comes from Peru. Similarly, 63% of embodied wild fish in fishoil comes from Ecuador, with a further 23% from Chile and 12% from Peru.

Ecuadorian shrimp landing in European supermarkets and plates are actively diverting fish away from the South American coast. With Spanish industry presence rising

in the Ecuadorian shrimp industry, **this is a clear act of nutritional colonialism.** Important marine nutrients are being diverted away from South America to feed Spanish and European consumers.

High levels of soymeal input are another reason **farmed shrimp is classed as the third most intensive food system for average greenhouse gas emissions.** Poore and Namecek (2018) categorized all food production systems into climatic and land use output. A 100g portion of farmed shrimp protein produces on average 18 kg CO₂e, higher than the equivalent for an average dairy herd (17 kg CO₂e). This is **the most intensive food system greenhouse gas emission after a beef herd (50 kg CO₂e), and a lamb or mutton herd (20 kg CO₂e)⁴³.** Soymeal supply chains are also facing scrutiny from NGOs, such as Earthworm, who work to increase transparency in sourcing methods⁴⁴.

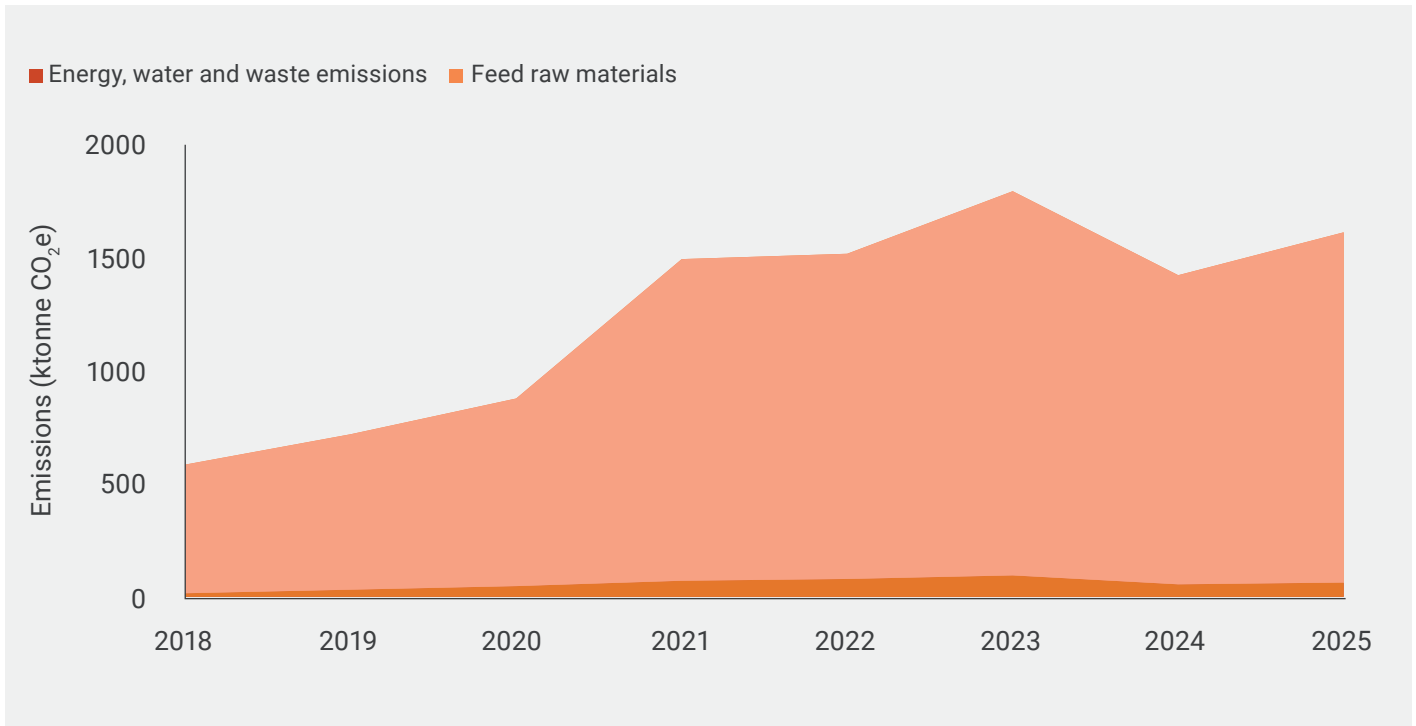
^f This is the result of unpublished research shared by Dr. Joeri Scholtens at the University of Amsterdam in confidentiality with Foodrise. Methodologies cannot be shared until publication (expected 2027) but Foodrise or Professor Scholtens can be contacted for further information or explanation in the meantime.

2. The evolution of the shrimp industry: from wild larvae to engine of profitability

The growth of the shrimp industry increases demand for soymeal, resulting in increasing greenhouse gas emissions. Danish feed company **Skretting's Latin America greenhouse gas emissions tripled between 2018 and 2023, with all emissions growth coming from increased raw materials for shrimp feed input^g**. While the company saw a minor dip

in 2024, emissions rose again in 2025. With three plants in Ecuador and one in Honduras, it is likely that this is largely tied to the growth in operations in Ecuador and the increased production from new mills built in 2017 and more recently^h. More details on company profiles, including Skretting can be found in Section 3.

Figure 4: Skretting's Latin American Emissions (ktonne of CO₂ equivalent). Data taken from Skretting (2025), chart by Foodrise.



^g Skretting also engages in salmon farming in South America – but this is measured under its BU Salmon group, a different group to BU LatAM.

^h Emissions are not broken down any further than regionally. Given the dominance of Ecuadorian shrimp feed in Skretting Latin America's production, and the wider industry trends, it is inferred that the Ecuadorian shrimp industry dominates these emissions output.

2.2 Historical and ongoing land clearances are driving conflict and threatening livelihoods



A drained shrimp farm pond sits within a mangrove forest in a vast coastal ecosystem. Additional farms are visible throughout the mangroves in the background.

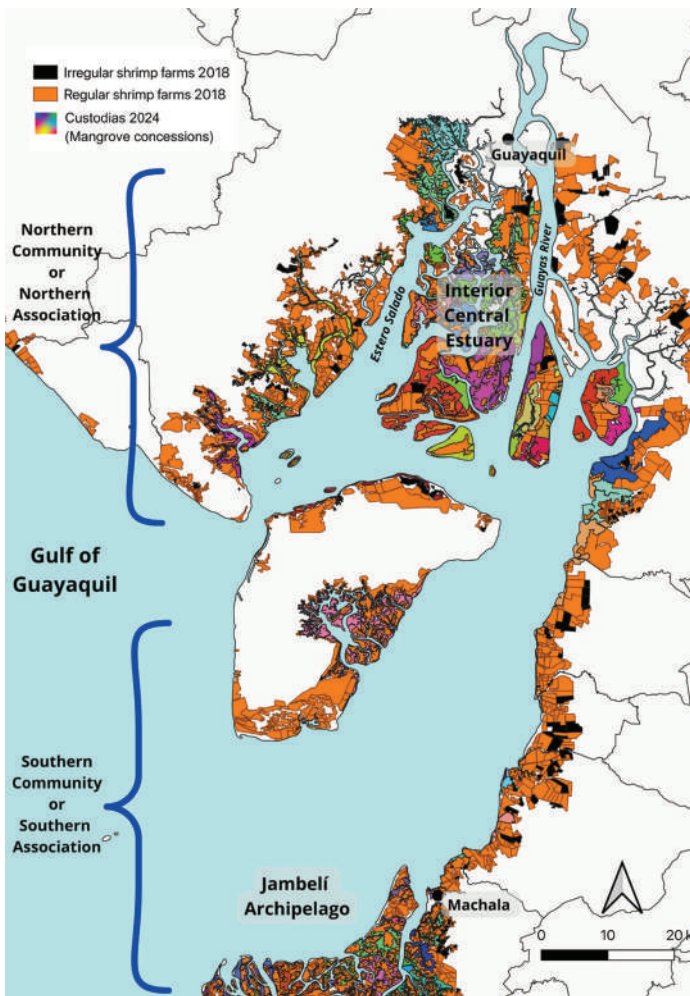
The rapid expansion of the country's export infrastructure has transformed large parts of Ecuador's coastline into intensive aquaculture production zones. While the industry has generated significant export revenues, researchers and community organisations increasingly point to broader environmental and social pressures associated with shrimp aquaculture expansion. The destruction of mangroves for shrimp pond construction remains one of the central environmental concerns associated with industrial shrimp aquaculture in Ecuador. Between 1969 and 1999, Ecuador's mangrove cover declined by 57%, contributing to the expansion of what became the world's largest industrial shrimp farming area⁴⁵. In some estuaries in the Gulf of Guayaquil, mangrove losses have reached up to 90%⁴⁶.

Existing environmental management systems require farms to be located according to ecological and environmental criteria. However, available assessments identify **limited consideration of cumulative habitat impacts and broader ecosystem service losses associated with shrimp aquaculture expansion**⁴⁷. Between 1966 and 1999 private companies and individuals were given concessions by the government to use the mangrove ecosystem for industrial shrimp farming⁴⁸. These policies led to widespread environmental degradation and **facilitated the violent dispossession of ancestral communities of crabbers, cockle gatherers, and fishers from their mangrove territories along the Ecuadorian coast**⁴⁹.

2. The evolution of the shrimp industry: from wild larvae to engine of profitability

Ecuador's shrimp farming industry began in El Oro province in 1968 before expanding into Guayas province. Today, around 60% of Ecuador's shrimp production takes place in Guayas province (mapped above), followed by El Oro (20%), Esmeraldas (9%), Manabí (9%) and Santa Elena (2%)⁵⁰.

Figure 5: The map below shows the most up-to-date publicly available information on shrimp farm locations across the Gulf of Guayaquil, the most intensively farmed area of Ecuador. Regularised shrimp farms are shown in orange, while irregular shrimp farms are in darker blue/black.⁵¹



Shrimp farms now cover 220,000 hectares of land, with most land acquired before the turn of the century, after which stronger controls on land acquisition were implemented. Transparency around land use in Ecuador remains an issue, especially since geolocated data on farms have not been publicly released since 2018⁵², therefore the precise make-up of land use of shrimp farms remains contested.

A 2020 survey of 101 farms across Ecuador's coastⁱ showed mixed land ownership models for shrimp farming companies: 34% of surveyed farms were operating from government-owned concessions, 58% were private land and 8% had a mix of both land ownership styles⁵³. The study also showed that **46% of surveyed farms were formerly on land occupied by mangroves, while 37% occupied former cropland or pasture areas**, 15% occupied former salt flats and 3% occupied scrubland. A separate study from 2014 shows roughly 30% of shrimp farms were estimated to be in tidal areas, directly bordering the sea, with 65,000 hectares of farms in salt flats and **20,000 hectares of farms in mangroves**⁵⁴. The remainder being raised land away from the sea, mainly former agricultural or pastoral land, with some limited scrub land also being used. Exact numbers of land use are thus hard to verify, yet historical damage to mangroves is clear as well as evidence of continued mangrove clearing, if at a reduced scale⁵⁵.



Large shrimp farm ponds and water channels separated by dirt berms stretch into the horizon within a mangrove ecosystem. Water aerators sit scattered throughout most of the ponds.

ⁱ The study is not perfectly representative of the industry but given strong challenges of transparency of the industry, the 101 farms may be seen as the best publicly available sample of shrimp farms.

Farm pond sizes vary. Nationally the average total pond surface of a farm is 141 hectares⁵⁶. In Guayas, the most intensively farmed region, the average total pond surface size rises to 228 hectares per farm (equivalent to 330 football pitches)⁵⁷. The total surface is made up of individual ponds within a farm average of 6.6 hectares, although ponds could be as big as 43 hectares⁵⁸. Ponds typically have a

water inlet gate at one end and a water outlet gate at the other. Introductory grow-out ponds for post-larvae shrimp average 20 post-larvae per square metre⁵⁹ and most ponds have some kind of mechanical oxygenation system to ensure shrimp do not suffocate. Roughly 57% of the post-larvae shrimp introduced into a pond survive until harvesting⁶⁰.



Workers net shrimp from a pond as it drains in during a harvest at a shrimp farm. The shrimp will be washed in a large tub filled with chilled water or ice slurry before being packed for transport.

2. The evolution of the shrimp industry: from wild larvae to engine of profitability

The occupation of land by the shrimp industry poses serious problems, particularly when occupying mangrove and agricultural area, although the importance of salt flat and scrub ecosystems should neither be overlooked. Industry representatives acknowledge that the historical expansion of shrimp farming contributed to large-scale mangrove loss during earlier decades of sector growth. In a 2023 personal communication cited by Chávez-Paez et al. (2025), Ecuador's National Chamber of Aquaculture stated that during the early development of the industry "there were no laws to protect [mangroves]" and that "the deforestation began" as shrimp farming expanded along the coast.

Beyond mangrove clearances the occupation of former agricultural lands, often locations for growing rice, also creates issues. The raised nature of these farms creates complex water pumping dynamics with extensive networks of generators and pumps required to distribute water appropriately amongst ponds⁶¹. The expansion of shrimp farming and associated water use can affect surrounding agricultural production systems and local access to water resources in areas of intensive shrimp development.



Mangroves partially cover a dyke separating shrimp farm ponds from a large canal. Water from one of the ponds drains through pipes into the canal.

Civil society has long challenged the shrimp industry

Mangrove protection was hard won

Resistance to the shrimp farming industry in Ecuador has a long history. In 1998 the group C-CONDEM was founded (National Coordination for the Defense of the Mangrove Ecosystem), launching a campaign ‘¿Y si se acaba el manglar?’ (‘What if the mangrove disappears?’) in partnership with Greenpeace International and the World Network Against Shrimp Aquaculture⁶². The campaign succeeded in some respects, bringing about legislative changes and a broader awareness of the damage shrimp farming had inflicted on the mangroves. At the turn of the century, widespread mangrove logging reduced and clearances of mangroves occurred at a much slower rate. Although by this time much of the damage was already done, and disjointed community-led reforestation efforts have only been able to restore small patches of coast⁶³.

Deforestation challenges from crabbing communities

With the pace of the industry’s growth picking back up over the last decade, civil society organisations have once again raised concerns regarding the environmental and social impacts associated with continued shrimp sector expansion. Chávez-Paez et al. (2025) report that artisanal crabbers in the Gulf of Guayaquil continue to raise complaints regarding illegal mangrove logging linked to shrimp farm expansion, while authorities often fail to respond to these complaints. One former community leader described repeatedly reporting mangrove destruction during the early expansion of shrimp farms:

“When I first saw the mangrove logging... we started filing complaints. We were excited when it seemed the deforestation stopped, but the next day, the backhoe (clearance machinery) was still working. Another complaint, and still the backhoe kept going, and on and on.”⁶⁴

Between 2011 and 2021, the Rio de Aguas Vivas Crabbers’ and Fishers’ Association reportedly filed repeated complaints about mangrove logging in the northern Gulf of Guayaquil. None received a formal response from authorities⁶⁵.

Intervening in finance

On 19 May 2022, Sinergia Animal, Protección Animal Ecuador, International Accountability Project and Terranimal sent a letter to Executive Directors of the International Finance Corporation (IFC) opposing a proposed USD 45 million loan to Industrial Pesquera Santa Priscila S.A. The loan was intended to support expansion of the company’s aquaculture operations. The letter argued that further expansion could contribute to environmental degradation, increasing corporate concentration and risks to coastal communities. It also raised concerns regarding public consultation processes, displacement risks and the accessibility of grievance mechanisms for affected communities.⁶⁶

Protecting land rights

In April 2026, organisations in Guayas province publicly denounced the eviction of farming families from land in Durán canton. Local groups argued that the eviction proceeded despite ongoing legal disputes over land possession and raised concerns about the recognition of historical land tenure rights in coastal communities. While the legal claims in this case remain contested, the incident illustrates broader concerns repeatedly raised by civil society organisations and researchers regarding land concentration, weak tenure protections, and pressures on small farming and fishing communities in areas affected by shrimp aquaculture expansion.

2.3 Shrimp breeding has a history of environmental catastrophe, today's focus on biosecurity raises significant shrimp welfare concerns

Early shrimp farming had little control of strains and breeds of shrimp, with shrimp larvae arriving naturally in ponds through intake water, later these were increasingly supplied through shrimp seed specialists⁶⁷. A 1982/1983 El Niño event created spawning problems for larvae leading to mass understocking of farms. Formalised hatcheries, also known as 'post-larvae production laboratories', were introduced in 1984 to facilitate easier breeding⁶⁸. Here wild

shrimp were caught from sea and gravid (pregnant with eggs) females were kept under specific conditions for the constant spawning of eggs. These ended up stocking all national farms by the end of the decade.⁶⁹ Hatcheries however still bred with wild seed strains throughout the 1990s, with specialist genetic strains staying a niche within the industry.



Empty outdoor tanks at a shrimp hatchery and laboratory that produces larvae for shrimp farming. Workers stand with hoses and cleaning tools inside one of the tanks.

This changed following a drastic white spot syndrome outbreak in 1999 which led to a mass mortality of shrimps across Ecuadorian farms, with a collapse in national production from 115,000 tonnes in 1998 to 38,000 tonnes in 2000⁷⁰. Following this the fishing, transporting, selling and stocking of wild shrimp post-larvae was prohibited and the industry became increasingly vigilant on issues of biosecurity and controlling of genetic strains of shrimps, breeding those more resistant to the syndrome.⁷¹ Today, the industry relies almost entirely on larvae originating from broodstock (pregnant female shrimp with specific genetic traits) involved in genetic improvement programmes. Targeted breeding programmes have, in the meantime, also improved shrimp growth rates and feed efficiency. The industry has evolved through specialist knowledge of shrimp feeding and growth patterns, with companies investing heavily into research programmes to improve efficiency and thus profitability across the shrimp life cycle. Laboratories and research remain an important part of any shrimp farming company.

Before spawning, pregnant female shrimp are first acclimated in temperature and light-controlled tanks for several days. Their eggs hatch into nauplii, the initial developmental stage, which then grow into the larvae and post larvae sold to shrimp farms. The industry uses a range of practices, including eyestalk removal on broodstock females as well as controlled nutrition and genetic breeding methods that avoid inbreeding between parent lineages. This controlled breeding program allows the facility to produce larger quantities in less time compared to smaller-scale operations. Eyestalk removal poses serious problems to shrimp welfare, while control through nutrition and breeding programmes stimulate unnatural egg cycles which may further stress pregnant female shrimps.



Female broodstock shrimp (also known as "mother shrimp") swim in a temperature and light controlled tank at a laboratory that produces larval and postlarval shrimp destined for shrimp farming.

2.4 Fertilisers, chemicals and antibiotics continue to be used



Massive shrimp farm ponds, some empty, stretch between hills in a low-lying coastal region.

According to the Boyd *et al.*'s (2021) surveys of 101 Ecuadorian farms, a wide range of pond amendments are used for water quality improvement, wild fish destruction, and shrimp health. These include:

- Liming materials (90%), fertilizers (88%), and molasses (80%), which stimulate phytoplankton growth as additional feed and regulate water acidity.
- Hydrogen peroxide was used in 37% of farms for emergency treatment for low dissolved oxygen concentration.
- 43% applied zeolite for removing ammonia nitrogen and 34 farms applied probiotics as a water quality enhancer.
- 28% applied piscicides
- 38% of surveyed farms used chemicals for disease treatments
- 8% used disinfectants

The use of antibiotics in aquaculture is a significant concern because it can drive the development of antibiotic-resistant bacteria and create risks for environmental and human health. Ecuador has regulations limiting the types of antibiotics that can be used in aquaculture, and antibiotic use may be more limited on larger farms where alternative treatments are sought⁷². Nevertheless, **antibiotics classified as critical for human medicine continue to be used in unknown quantities**⁷³. Research published in 2026 suggests that **amoxicillin, erythromycin, and sulfonamide are used with high frequency in Ecuador**⁷⁴, and a 2024 study highlighted that **antibiotic resistance genes were present in shrimp farming operations in the area of Atacames**⁷⁵.

Chávez Paez *et al.* (2025) highlight that one toxic substance commonly used in shrimp preservation is **sodium metabisulfite**. In community interviews, they link its use to the presence of dead fish around shrimp ponds. When Chávez-Paez *et al.* (2025) questioned about the relationship

between metabisulfite and dead fish, a representative of the National Chamber of Aquaculture stated that while it has been used “**at some time...but not in sufficient quantities to kill fish,**” and added that “if there were spills of metabisulfite, it would quickly pick up oxygen from the water it is mixed with because the water is not static” (Director of Environment, Ecuadorian National Chamber of Aquaculture, April 2023).⁷⁶ Overall, the Chamber asserts that metabisulfite becomes less toxic upon contact with water and that

“shrimp farms have changed their management practices for more than ten years,” (Director of Environment, Ecuadorian National Chamber of Aquaculture) utilizing the chemical more cautiously. This shift is reportedly in response to regulations from the “European Union and the United States, which have established maximum permissible limits since excess metabisulfite can cause allergic reactions in consumers” (Director of Environment, Ecuadorian National Chamber of Aquaculture).

2.5 Labour rights and work precarity is a major issue in and around shrimp farms

The social pressures surrounding Ecuador’s shrimp boom extend beyond environmental conflicts alone. Ecuador’s coastal regions are experiencing growing insecurity linked to economic instability and organised crime. Reports describe increasing cases of **extortion, theft, threats, and violence affecting shrimp farm workers and surrounding communities**. Some shrimp farms have reportedly introduced stricter security measures and **communication restrictions for workers living on site during extended shifts**, raising concerns regarding worker isolation and labour vulnerability⁷⁷.

Labour precarity also remains widespread within the sector. According to the International Labour Organisation, **only 37% of aquaculture workers in Ecuador have formal contracts, while 63% work informally**⁷⁸. Studies of shrimp farms in Jama canton further identified extensive use of temporary labour and limited regulatory oversight, conditions that can increase vulnerability to labour exploitation. Despite the scale of Ecuador’s shrimp export industry, publicly available information regarding forced labour risks, human trafficking, and hazardous child labour within shrimp supply chains remains limited.



Workers hand-peel mounds of shrimp kept cool with chunks of ice at a shrimp processing and packing plant.

2.6 Community conflicts linked to shrimp expansion continue into the present day

In the remaining mangrove areas of the Gulf of Guayaquil, communities report growing competition over **declining crab and cockle populations**, linked to ecosystem degradation, industrial pollution, and the expansion of shrimp aquaculture⁷⁹. Indigenous communities along the coast have in some cases been able to use new legislation to protect their claims to coast⁸⁰. While they receive little financial support, communities have led mangrove reforestation projects with some success⁸¹.

Mangrove and wider coastal ecosystem restoration often attracts new competition from other struggling coastal communities. **Conflict has been reported in areas of reforestation**⁸². Restored wildlife brings new economic

opportunities for crabbing and fishing, with many communities infringing on fishing rights in newly restored habitats. The **intra-communal conflict is a long-lasting legacy of the historic land grabs that the industry carried out** from the 1960s through to the year 2000.

Against this background, the Ecuadorian shrimp industry increasingly presents itself as environmentally responsible and supportive of mangrove protection initiatives. In 2022, the National Chamber of Aquaculture stated that Ecuador's shrimp sector was "environmentally conscious and protective of surrounding ecosystems" through new anti-deforestation commitments developed with WWF Ecuador⁸³.



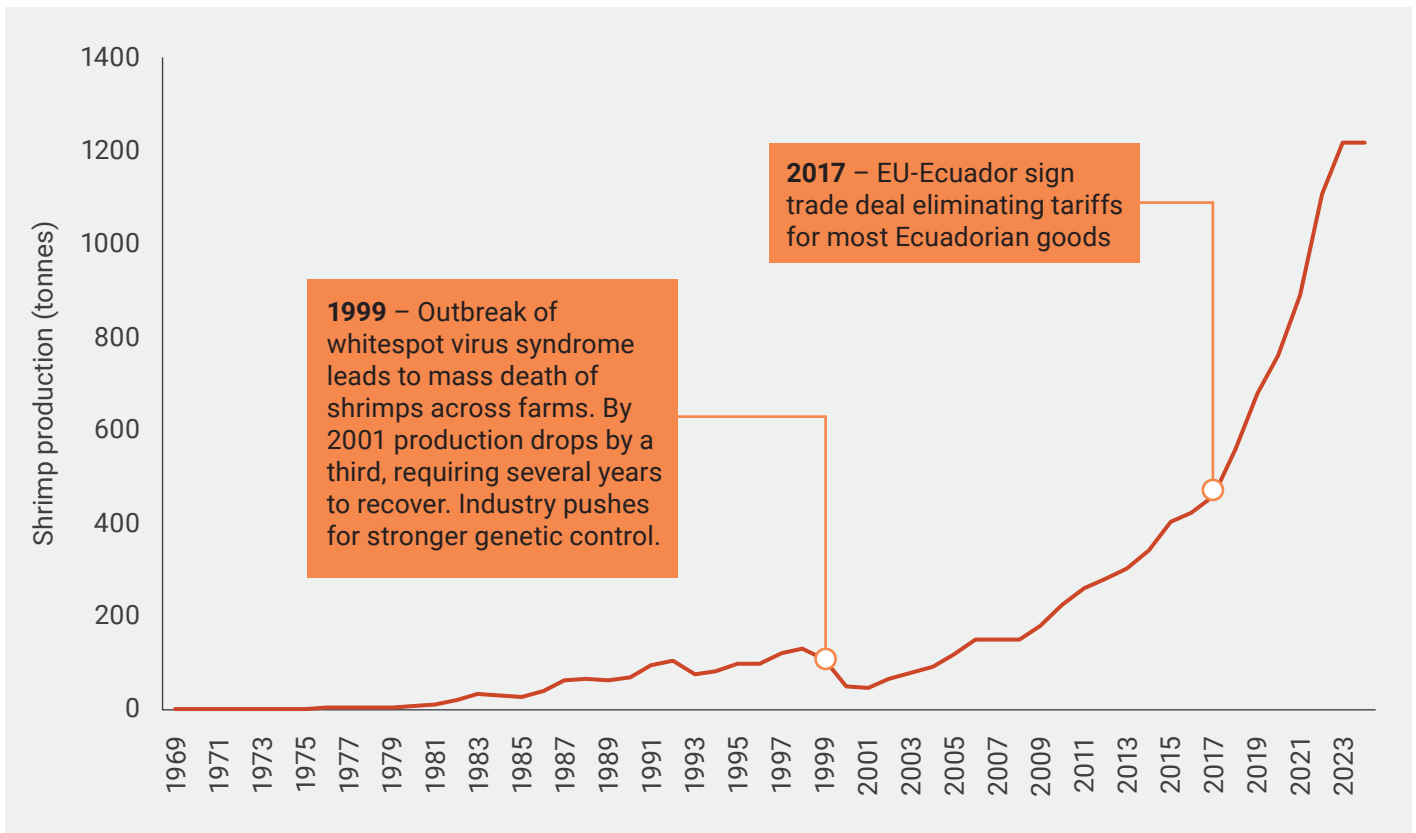
Dirt berms separate a series of large shrimp farm ponds within a mangrove ecosystem.

3. The shrimp industry has pooled profits into a small group of corporations

Ecuador's shrimp industry has become the country's most important export sector. In 2025, shrimp exports totalled USD \$8.4 billion, **surpassing crude oil as Ecuador's largest export sector**⁸⁴. Following a major industry collapse at the turn of the century, after the spread of the whitespot virus syndrome, Ecuadorian whiteleg shrimp exports increased from a record low of roughly 40,000 tonnes in 2000 to an estimated 1.2 million tonnes in 2023⁸⁵. A period of significant

rapid growth followed in 2017, after Ecuador and the EU signed a trade deal removing all tariffs from most goods travelling between the countries. In 2022, Ecuador became the world's largest producer and exporter of farmed shrimp, overtaking China and India. According to industry figures, **export sales increased by approximately one-fifth (20%) in 2025 compared to 2024**, when shrimp exports totalled roughly USD 7 billion⁸⁶.

Figure 6: History of Ecuadorian whiteleg shrimp production (tonnes). FAO (2026)



3. The shrimp industry has pooled profits into a small group of corporations



Stacks of empty plastic crates sit outside a loading bay at a shrimp processing and packing plant.

Around 4,000 registered shrimp farms operate in Ecuador, covering roughly 220,000 hectares of land⁸⁷. Beyond production itself, the shrimp export sector also depends on extensive processing and export infrastructure. As of August 2024, Ecuador had 172 approved establishments authorised to export fishery products to the European Union, including processing facilities handling shrimp and other seafood products⁸⁸.

The sector is increasingly concentrated in the hands of a relatively small number of large companies. Table 2 shows that in 2024, Ecuador's largest shrimp exporter, Industrial Pesquera Santa Priscila, accounted for USD \$1.29 billion in export value, representing 21.2% of the market share among the country's leading producers and exporters⁸⁹. The second-largest company, S.O.N.G.A., accounted for USD \$609 million and a 10% market share. Together, these two companies represented just under one third (31.2%) of export value among Ecuador's top shrimp exporters while the remaining eight companies make up 30% of national production⁹⁰. In 2021, there were 187 companies affiliated with Ecuador's National Chamber of Aquaculture, of which 144 were shrimp producing companies⁹¹. Based on Forbes' (2024) reporting presented in Table 3, we can estimate that the remaining 39% of the industry is made up of at least 134 significantly smaller companies.

Industrial Pesquera Santa Priscilla and S.O.N.G.A. generate almost a third of Ecuador's shrimp revenue

Industrial Pesquera Santa Priscila (IPSP)

is the most vertically integrated aquaculture company in Ecuador. Having started operations in 1976, it now covers almost all aspects of a shrimp's life cycle, including breeding and feed production. For a decade it has dominated as the leading Ecuadorian shrimp exporter, making it one of the largest shrimp exporters at global level. Its farms, with all facilities included, cover 18,000 hectares of land. It runs hatchery and nursery facilities, production, processing, and packaging for export, and appears to be the only company with significant control over its own feed sourcing. IPSP owns a feed production unit as a joint venture with Latin American feed producing group Vitapro, branded under the name Nicovita.



S.O.N.G.A. (Sociedad Nacional de Galapagos)

is the second-largest shrimp farming company covering 11,000 hectares of land, although it also sources from other companies⁹². Like many other shrimp farming companies, it started out with a broader fisheries portfolio but by the 1980s it shifted its entire operational focus to Guayaquil to focus on aquaculture shrimp for export and processing.



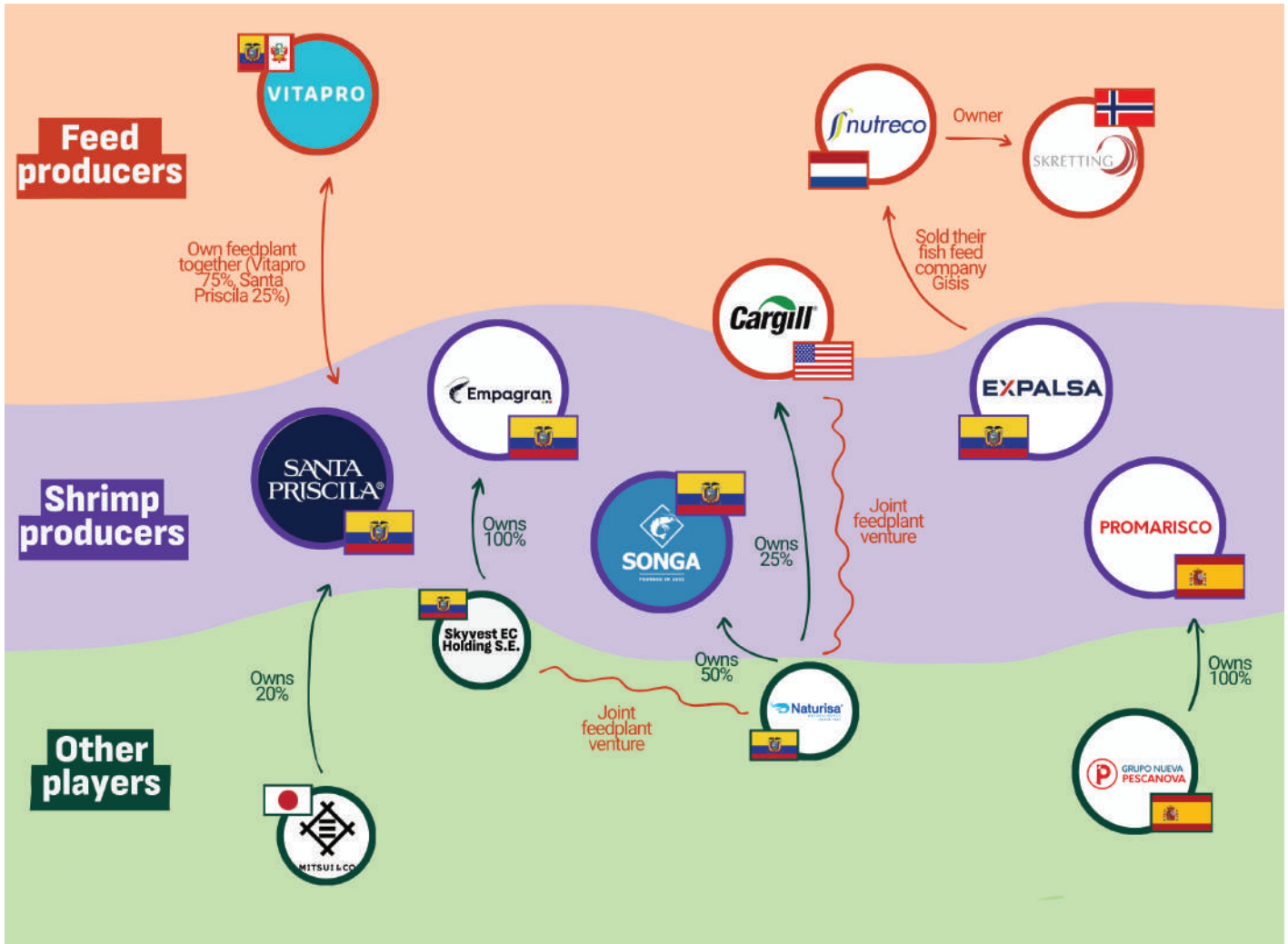
3.1 Ecuador's Top 10 Shrimp Exporters in 2024

Table 3: Ecuador's top 10 Shrimp Exporters. Based on Forbes (2024) value analysis, company details added by Foodrise.⁹³

	Company Name	Company structure and broader industry links	Value (USD Millions)	Market Share (%)	Volume (Million kg)
1	Industrial Pesquera Santa Priscila	Cornejo group (Ecuador) 80%. Since 2024 20% owned by Japanese conglomerate Mitsui. ⁹⁴	\$1,286.70	21.2%	214.10
2	S.O.N.G.A	Since 1991, 50% owned by Naturisa (Ecuador). Naturisa partnered with US feed producer Cargill in 2015 to create a feed mill. Naturisa has 25% shares in Cargill's Ecuadorian subsidiary Acuacargill. ⁹⁵	\$609.20	10.0%	116.12
3	Omarsa	Ecuadorian company with five farms all located within estuaries. ⁹⁶	\$496.40	8.2%	95.71
4	Expalsa	Owned by Expalsa group. In 2012 Expalsa sold its aquaculture feed company Gisis to Nutreco, the Dutch owner of Norwegian feed producer Skretting. ⁹⁷	\$290.70	4.8%	63.05
5	Nirsa	Also one of Ecuador's leading tuna fishing companies.	\$257.60	4.2%	54.43
6	Promarisco	Subsidiary company of Spanish fisheries giant Nueva Pescanova.	\$225.30	3.7%	unknown
7	Exportquilsa	Ecuadorian company focusing on Chinese market.	\$162.40	2.7%	32.66
8	Empacreci	Ecuadorian Grupo Brito bought a 55% stake in Empacreci in 2025 ⁹⁸	\$148.50	2.4%	33.11
9	Empagran	Owned by Skyvest (country unclear). Skyvest co-financing Acuacargill 2015 feed venture expansion.	\$140.90	2.3%	29.03
10	Cofimar	Ecuadorian company covering 2,700 hectares of land, uses eyestalk removal (ablation) in larvae cultivation. ⁹⁹	\$136.80	2.3%	24.49

3. The shrimp industry has pooled profits into a small group of corporations

Figure 7: Company map demonstrating connections and ownership models between Ecuadorian shrimp farming corporations, collaborations with feed producers, and major international investors.

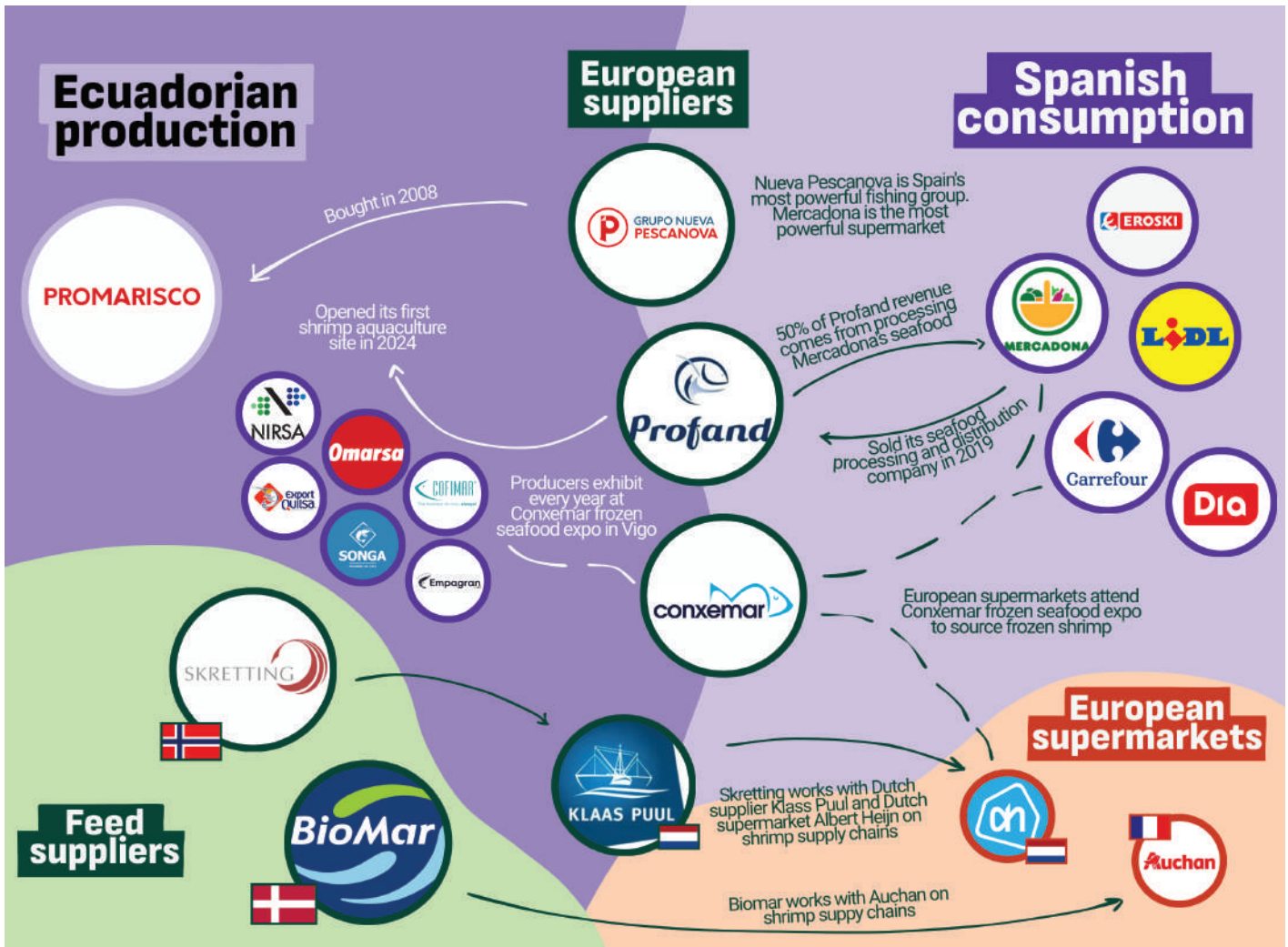


3.2 Industry power is consolidating, with support from international financial backers

With the industry increasingly consolidated into a small number of powerful Ecuadorian companies, international financiers and corporations are increasingly interested in claiming stakes in the industry. In March 2024, Japanese company Mitsui bought a 20% share in Industrial Pesquería Santa Priscilla, Ecuador’s largest farmed shrimp exporter, for a total of USD \$360 million USD¹⁰⁰.

Spanish companies are also playing a key role in the expansion and consolidation of Ecuador’s shrimp sector. Promarisco, the country’s 6th largest shrimp producer, is the only top 10 valued shrimp farming company in Ecuador that is not Ecuadorian, acting entirely as a Spanish subsidiary of Galician based fisheries giant Nueva Pescanova, the largest fisheries business in Spain.

Figure 8: A company map showing relations between European companies and Ecuadorian shrimp production.



The success of the model is inspiring similar moves from other Spanish industry players. Two years after the EU-Ecuador trade deal removing tariff barriers on goods, Spanish supermarket titan Mercadona sold its seafood processing and distribution company Caladero to Profand in 2019 (see Figure 8). Since 2025 Profand has established itself as Spain's most valuable fishing company, worth \$1.12 billion in 2025¹⁰¹, building on fishing fleets in 12 countries, as well as owning 3 aquaculture sites in Galicia (rainbow trout) and 8 aquaculture sites in Greece (seabass). In 2024 it acquired its first shrimp aquaculture site in Ecuador¹⁰². Since its purchase of Caladero, 50% of Profand's revenue has come from processing seafood products for Mercadona¹⁰³.

Industry events such as the annual Conxemar frozen seafood exposition in Vigo, Galicia, are also a meeting point for Spanish entry into the market. Attended by Ecuadorian farmed shrimp producers (see Figure 7) and prominent supermarkets Lidl, Carrefour as well as Mercadona, these facilitate close industry connections linking the Spanish and European consumers to Ecuadorian producers. Spanish fishing and retail industry are positioning themselves to play a prominent role in Ecuador's profits.

3. The shrimp industry has pooled profits into a small group of corporations

Figure 9: Spanish supermarket market share % by turnover (2024)

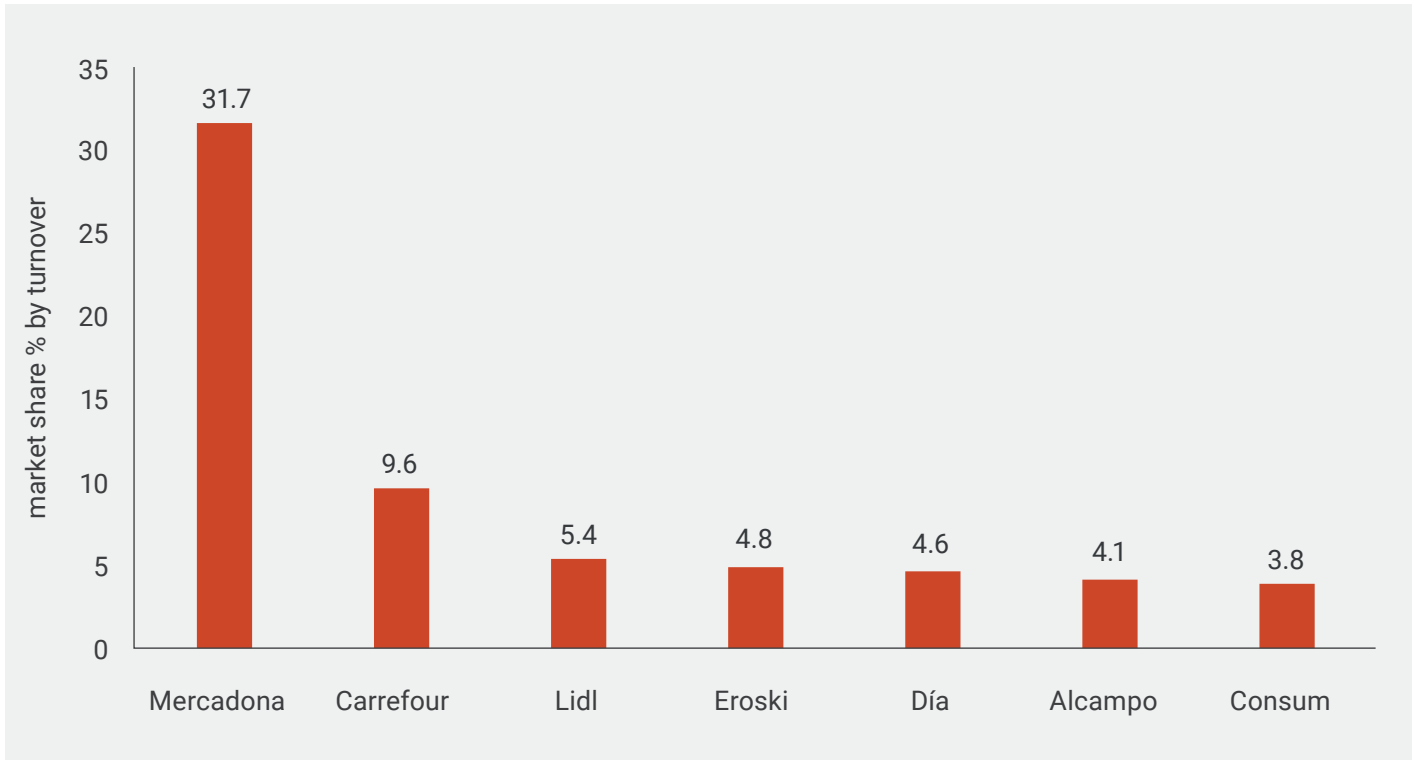


Figure 9 shows supermarket market share in Spain¹⁰⁴. Research by Rethink Priorities, shared with Foodrise and Observatorio de Bienestar Animal, shows that this market share generally reflects the number of shrimp in the top 5

Spanish supply chains. Mercadona leads with an estimated 948 million shrimp in their supply chain, followed by Carrefour with 337.5 million, Lidl with 237 million, El Corte Ingles with 179.5 million and Eroski with 150.8 million¹⁰⁵.

3.3 Industrial Feed Producers are also cashing in on Ecuador's shrimp growth

Interest in Ecuador's shrimp farming industry extends beyond the fishing and retail sector. Major international feed companies (listed in Table 4) are growing their presence in the Ecuadorian market. Nutreco, the Dutch parent company of Norwegian feed giant Skretting, cites shrimp as the fastest-growing species within its 2025 animal feed range, approaching the success of poultry feed while overtaking growth in stagnating swine and beef feed revenue¹⁰⁶. Similarly, Danish feed company Biomar reported that in 2026 its shrimp feed accounts for 31% of its feed volume¹⁰⁷: while growth in 2025 was primarily driven by its Ecuadorian factory's 8 production lines¹⁰⁸. The company has recently purchased full ownership of Ecuadorian feed producer Alimentosa, and is further building a new feed plant. Biomar listed as an independent company on the Danish stock market for the first time in May 2026. Cargill, having started Ecuadorian operations in a joint venture partnership in 2015 with Naturisa, the parent organisation of

shrimp farmer S.O.N.G.A, decided to double its Ecuadorian production capacity in 2022, by further partnering with Skyvest, the parent company of shrimp farmer Empagran (see Figure 7)¹⁰⁹. Cargill's initial plant could produce 156,000 kmt.

Feed producers work in close collaboration with European supermarkets (see company map in Figure 8). Feed produced by Skretting is used in aquaculture products which are sold in supermarkets across Europe. The feed manufacturer states that it is actively working with Dutch supermarket chain Albert Heijn and shrimp importer Klaas Puul to 'provide the best quality shrimp available', arguing through collaboration it achieves the 'highest animal welfare with lowest marine footprint'¹¹⁰. Biomar collaborates with French supermarket Auchan and French NGO Earthworm in a project aiming to increase sustainability of the shrimp supply chain.

Table 4: Major feed companies operational in Ecuador.

Feed Company	Description of Ecuadorian feed operations
Skretting , Norway Parent Organisation: Nutreco, Netherlands Feeds 60 species across 15 countries	First feed plant opened in 2013. A second feed plant constructed in 2017 alone produces 470,000 tonnes of feed. Skretting launched two new feed lines in Ecuador in 2025, suggesting a new plant and potential growth in production capacity. ¹¹¹ As of 2026, Skretting has three active shrimp feed plants in Ecuador and one other in Honduras.
Biomar , Denmark Parent Company: Schouw and Co., Denmark Feeds 45 species in 90 countries	Production reported as 300,000 tonnes of feed in Ecuador at the start of 2026. The company expects to produce 410,000 tonnes by the third quarter of 2026. By 2027 capacity may reach as high as 700,000 tonnes.
VitaPro , Ecuador Parent Company: Alicorp, Peru	Vitapro produced 918,000 tonnes of feed in 2025 across both Chilean salmon and Ecuadorian shrimp feeds, up from 672,000 in 2024. AliCorp states 2024-2025 year-on-year growth principally came from double-digit growth in shrimp exports from Ecuador, as well as improved production conditions. ¹¹²
Acuacargill del Ecuador Joint venture between Naturisa (Ecuadorian shrimp farming company, owner of S.O.N.G.A.) and Cargill a US-based feed producer	Acuacargill's first Guayaquil plant built in 2018 has a capacity of 156,000 tonnes. A joint venture expansion in 2022 between Cargill, Skyvest (Ecuadorian investment group) and Naturisa formed a new company, Acuacargill del Ecuador, doubled capacity to reach 300,000 tonnes of production.

As shrimp feed production grows, greenhouse gas emissions from soy extraction are on the rise. One of Skretting's main sustainability initiatives is entitled Skretting 360+, 'comprehensive services designed to optimize feeding, farm and health management in aquaculture'¹¹³. Piloted on an Ecuadorian farm, Skretting 360+ uses 'digitalized

smart feeders' which allow for 'optimum feeding and less nutritional waste' settling in the bottom of ponds¹¹⁴. This project took place at the same time as the 2018 construction of a 'state-of-the-art' feed production plant in Duran, Ecuador, at the cost of \$65 million USD, with an annual capacity of 470,000 tonnes of feed¹¹⁵.

3.4 The limits of labels: Supermarkets struggle to verify shrimp supply chains

A 2026 Spanish consumer survey found that while 90% of consumers look at product labels in supermarkets, only 6% read them carefully¹¹⁶. Many Spanish consumers do not regularly check environmental or animal welfare labelling information and are often unfamiliar with the meaning of sustainability certifications. When it came to the Aquaculture Stewardship Council (ASC), 75% of consumers said they had never seen it, while 11% claimed to understand the meaning of the label, and just 4% of consumers actually understood the label's meaning¹¹⁷. Despite this, the study found that sustainability labels can increase purchase intention for seafood products, particularly aquaculture products.

Research released in early 2026 by World Forest ID found that 84% of tested farmed shrimp retail products purchased in Germany, the United Kingdom and the United States did not match their declared country of origin¹¹⁸.

These findings raise broader questions regarding traceability and origin verification within international shrimp supply chains supplying European retail markets. Spain plays a particularly important role within these supply chains as the European Union's largest importer of Ecuadorian shrimp products. Shrimp sold by Spanish supermarkets increasingly depends on international sourcing networks and sustainability certification schemes. According to ASC 30% of Ecuadorian whiteleg shrimp production is currently certified under the ASC standard¹¹⁹. The Ecuadorian Chamber of Aquaculture has stated its intention to expand certification across the sector under the ASC Farm Standard, which includes requirements related to forced labour, child labour and human trafficking¹²⁰.

Glossary

Artisanal crabbers – A person who catches crabs using traditional, small-scale methods, often prioritizing sustainability and local practices.

Broodstock – A group of mature female shrimp used and controlled in specific conditions to encourage the breeding of eggs. Females have often been selected for specific characteristics such as disease resistance or large shrimp offspring

Cockle – A marine bivalve mollusc. True cockles live in sandy, sheltered beaches throughout the world.

Coldwater shrimp – Coldwater shrimp live in colder northern waters and are usually smaller and sweeter, like northern shrimp from Canada, Norway and Greenland.

El Niño – A global climate phenomenon that emerges from variation in winds and sea surface temperatures over the tropical Pacific Ocean. The warming phase of the sea surface temperature is known as “El Niño” and the cooling phase as “La Niña”.

Estuary – An estuary is a partially enclosed coastal body of brackish water where freshwater from rivers or streams meets and mixes with saltwater from the open sea.

Farmed shrimp – Shrimp farming is a form of aquaculture that takes place in marine or freshwater environments, producing shrimp or prawns for human consumption.

Feed mills – Facilities that produce shrimp feed.

Fishmeal and fish oil – Usually a part of fish feed for farming. These are processed fish products, ground-up fish made into flour (fishmeal) or squeezed to extract oils (fish oil).

Hatcheries – A specialized laboratory where the life of farmed shrimp starts. A strictly controlled environment with specific vitamins and minerals added to their water to help the shrimp larvae survive.

Mangrove – A shrub or tree that grows mainly in coastal saline or brackish water.

Shrimp – Throughout this report ‘shrimp’ refers to Ecuador-produced whiteleg shrimp (*Litopenaeus vannamei*), unless otherwise explicitly stated.

Warmwater shrimp – Shrimp species that are raised or caught in warm tropical or subtropical waters, rather than in colder oceans, like pacific white shrimp, black tiger shrimp, Indian white shrimp.

Wild shrimp landings – the total amount or volume of shrimp that are caught in their natural habitats (wild-caught) and brought ashore (landed) by fishing vessels.

Bibliography

- Akter, Lovely, Neaz A. Hasan, Moshir Rahman, Nasrullah Forajy, and Mohammad Mahfujul Haque. "Antimicrobial Resistance in Shrimp Aquaculture: Pathways, Ecosystem Risks, and Policy Responses." *Environmental Challenges* 22 (March 2026): 101401. <https://doi.org/10.1016/j.envc.2025.101401>.
- Alicorp. "Alicorp Reports 2025 Financial Results | Alicorp." Alicorp Reports 2025 Financial Results | Alicorp, February 16, 2026. <https://www.alicorp.com.pe/en/news/alicorp-reports-2025-financial-results>.
- Biomar. *2024 Annual Report*. 2025. <https://www.biomar.com/our-promise/annual-report>.
- Boyd, Claude, Robert Davis, Arturo Wilson, Fabrizio Marcillo, Susanna Brian, and Aaron McNevin. "Resource Use in Whiteleg Shrimp *Litopenaeus Vannamei* Farming in Ecuador – Boyd – 2021 – Journal of the World Aquaculture Society – Wiley Online Library." *Journal of the World Aquaculture Society*, April 6, 2021. <https://onlinelibrary.wiley.com/doi/10.1111/jwas.12818>.
- Cámara Nacional de Acuicultura. "REVISTA AQUACULTURA 169." *Issuu*, March 2, 2026. https://issuu.com/revista-cna/docs/revista_aquacultura_169.
- Cámara Nacional de Acuicultura. "Unión Europea: Importaciones de Camarón a Mayo 2023." *Shrimp Market Data*, August 4, 2025. <https://www.cna-ecuador.com/shrimp-market-data/>.
- Cantos, G., C. Fuentes, I. Fernández-Segovia, and A. Fuentes. "Study of Consumer Perceptions of Sustainable Fishery Products." *Aquaculture* 610 (January 2026): 742926. <https://doi.org/10.1016/j.aquaculture.2025.742926>.
- Cargill. "Cargill to Enter into Joint Venture to Increase Production Capacity in Ecuador's Shrimp Feed Market." October 28, 2022. <https://www.cargill.com/2022/cargill-to-enter-into-joint-venture-to-increase-production>.
- Chase, Chris. "Profand Hits EUR 1.1 Billion in Revenue, Continues Growth Trajectory." *Seafood Source*, April 17, 2026. <https://www.seafoodsource.com/news/business-finance/profand-hits-eur-1-1-billion-in-revenue-continues-growth-trajectory>.
- Chávez-Páez, Wendy, Jean Carlo Rodríguez-de-Francisco, Federico Koelle, and Anna-Katharina Hornidge. "Navigating the Tides of Conservation and Conflict: The Political Ecology of Mangrove Ecosystem Sustainable Use and Custody Agreements in the Gulf of Guayaquil, Ecuador." *Maritime Studies* 24, no. 3 (2025): 50. <https://doi.org/10.1007/s40152-025-00444-x>.
- Chávez-Páez, Wendy, Jean Carlo Rodríguez-de-Francisco, Federico Koelle, and Anna-Katharina Hornidge. "Navigating the Tides of Conservation and Conflict: The Political Ecology of Mangrove Ecosystem Sustainable Use and Custody Agreements in the Gulf of Guayaquil, Ecuador." *Maritime Studies* 24, no. 3 (2025): 50. <https://doi.org/10.1007/s40152-025-00444-x>.
- Cofimar. *Cofimar – Somos Una Compañía Camaronera*. 2026. <https://cofimar.ec/en/>.
- Earthworm. "From Ecuador to France: A Collaborative Effort to Build a Sustainable Shrimp Supply Chain." English, September 17, 2024. <https://earthworm.org/news-stories/ecuador-france-sustainable-shrimp-supply-chain>.
- EUMOFA. "Monthly Highlights (July 2025): Development of the Trade Flows of Fishery and Aquaculture Products between the EU and the Andean Community." Monthly Highlights, July 2025. <https://eumofa.eu/market-analysis#monthly>.
- EUMOFA. *The EU Fish Market: 2025 Edition*. 2025. <https://eumofa.eu/-the-eu-fish-market-2025-edition-is-online>.
- Evans, John. "Canceled Peru Anchovy Season Costs Industry \$1 billion; Fishmeal Plants Shut down for First Time in 30 Years." August 21, 2023. <https://www.intrafish.com/fisheries/canceled-peru-anchovy-season-costs-industry-1-billion-fishmeal-plants-shut-down-for-first-time-in-30-years/2-1-1504344>.
- FAO. *The State of World Fisheries and Aquaculture 2026. Blue Transformation: Turning Vision into Impact*. The State of World Fisheries and Aquaculture (SOFIA) 2026. FAO, 2026. <https://doi.org/10.4060/cd8357en>.
- Foodrise. "Blue Empire." *Foodrise*, 2024. <https://foodrise.org.uk/research/blue-empire/>.
- ICES. *Working Group on Crangon Fisheries and Life History (WGCRAN; Outputs from 2024 Meeting)*. Report. ICES Scientific Reports, 2025. <https://doi.org/10.17895/ices.pub.28638743.v1>.
- IFFO The Marine Ingredients Organisation. "Marine Ingredients Market Trends: All Eyes on Peru, While China's Domestic Production of Marine Ingredients Remains Constrained | IFFO – The Marine Ingredients Organisation." January 6, 2026. <https://www.iffo.com/marine-ingredients-market-trends-all-eyes-peru-while-chinas-domestic-production-marine-ingredients>.
- International Labour Organization. "Trabajo decente en los sectores pesca y acuicultura en América Latina y el Caribe." International Labour Organization, March 1, 2024. <https://www.ilo.org/es/publications/trabajo-decente-en-los-sectores-pesca-y-acuicultura-en-america-latina-y-el>.

- La Hora. "Los manglares se destruyen con autorización." LA HORA, February 17, 2022. <https://www.lahora.com.ec/archivo/Los-manglares-se-destruyen-con-autorizacion-20220217-0048.html>.
- La Voz de Galicia. "La pesquera viguesa Profand compra una planta en Boston y entra en la acuicultura de langostino." April 18, 2024. <https://www.lavozdegalicia.es/noticia/somosmar/2024/04/18/profand-mantiene-facturacion-incrementa-ebitda-invierte-planta-boston/00031713454091553449513.htm>.
- Marcillo, Fabrizio. "Shrimp Farming and the Environment in Ecuador: Past and Present." *World Aquaculture*, September 15, 2017, 39–42.
- Mitchell, Tilden M., Tin Ho, Liseth Salinas, et al. "Analysis of Antibiotic Resistance Genes (ARGs) across Diverse Bacterial Species in Shrimp Aquaculture." *Antibiotics* 13, no. 9 (2024): 825. <https://doi.org/10.3390/antibiotics13090825>.
- Monterey Bay Aquarium. *Warmwater Shrimp Social Risk Profile | Forced Labor, Human Trafficking, and Hazardous Child Labor Risks | Ecuador, Aquaculture and Processing*. Seafood Social Risk Tool. 2025. <https://www.montereybayaquarium.org/act-for-the-ocean/sustainable-seafood/what-we-do/human-rights/seafood-social-risk-tool>.
- Monterey Bay Aquarium Seafood Watch. *Whiteleg Shrimp – Litopenaeus Vannamei*. n.d. Accessed May 6, 2026. <https://www.seafoodwatch.org/recommendation/shrimp/whiteleg-shrimp-30539>.
- Oliveros-Ramos, Ricardo, and Yunne-Jai Shin. "Future Climate Change Impacts on Anchoveta (*Engraulis Ringens*) in the Northern Peru Current Ecosystem." Preprint, bioRxiv, February 15, 2023. <https://doi.org/10.1101/2023.02.14.528548>.
- Omarsa. "About our facilities." *Omarsa*, 2025. <https://www.omarsa.com.ec/facilities/>.
- Poore, J., and T. Nemecek. "Reducing Food's Environmental Impacts through Producers and Consumers | Science." *Science* 360, no. 6932 (2018). <https://www.science.org/doi/10.1126/science.aag0216>.
- Randall, Emily. "Partner Letter Urges IFC to Reject Loan for Shrimp Giant Santa Priscila in Ecuador (May 2022)." *Stop Financing Factory Farming*, May 19, 2022. <https://stopfinancingfactoryfarming.com/publications/partner-letter-to-ifc-industrial-pesquera-santa-priscila-ecuador-may-2022>.
- Reuters. "Ecuadorian Shrimp Sales Rebound in 2025, Surpass Oil Exports-Producers' Association | Reuters." *Reuters*, February 16, 2026. <https://www.reuters.com/world/americas/ecuadorian-shrimp-sales-rebound-2025-surpass-oil-exports-producers-association-2026-02-16/>.
- Rodríguez, J., B. Bayot, Y. Amano, et al. "White Spot Syndrome Virus Infection in Cultured *Penaeus Vannamei* (Boone) in Ecuador with Emphasis on Histopathology and Ultrastructure." *Journal of Fish Diseases* 26, no. 8 (2003): 439–50. <https://doi.org/10.1046/j.1365-2761.2003.00483.x>.
- Ropero, Javier García. "El Dueño de Profand, Principal Proveedor de Pescado de Mercadona, Toma El Mando Total Tras Recuperar El 100% de La Compañía y Suprimir Su Consejo." *Cinco Días*, May 2, 2025. <https://archive.ph/SN0gG>.
- Salto, Mónica Mendoza. "Estas son las 10 mayores exportadoras de camarón ecuatoriano." *Forbes Ecuador*, February 19, 2025. <https://www.forbes.com.ec/rankings/estas-son-10-mayores-exportadoras-camaron-ecuadoriano-n67863>.
- SHV. "Financial Information." *SHV*, 2025. <https://www.shv.nl/financial-information/>.
- Signalbase. "EMPACRECI S.A Acquired by Grupo Brito | M&A News." May 13, 2025. <https://www.trysignalbase.com/news/acquisitions/empacreci-sa-acquired-by-grupo-brito-acquisition>.
- Skretting. "Impact Report 2024." Skretting, 2024. <https://www.skretting.com/en/news-and-stories/>.
- Skretting. "Impact Report 2025." Accessed June 3, 2026. <https://www.skretting.com/en/sustainability/sustainability-reporting/impact-report-2025/>.
- Skretting. "New Feed Plant to Support Shrimp Farming Growth." Skretting, July 7, 2017. <https://www.skretting.com/en/news-and-stories/new-feed-plant-to-support-shrimp-farming-growth/>.
- The Fish Site. "Mitsui Raises Shrimp Stakes with \$360m Investment in Santa Priscilla." August 9, 2023. <https://thefishsite.com/articles/mitsui-raises-shrimp-stakes-with-360m-investment-in-santa-priscilla>.
- Towers, Lucy. "Acquisition in Ecuador Takes Nutreco to Global Top Three Shrimp Feed Producer." *The Fish Site*, October 9, 2012. <https://thefishsite.com/articles/acquisition-in-ecuador-takes-nutreco-to-global-top-three-shrimp-feed-producer>.
- World Forest ID. "Supermarket Shrimp Is Widely Mislabeled, Our Research Finds." World Forest ID, April 21, 2026. <https://worldforestid.org/insights/farmed-shrimp-origin>.

References

- 1 Wendy Chávez-Páez et al., "Navigating the Tides of Conservation and Conflict: The Political Ecology of Mangrove Ecosystem Sustainable Use and Custody Agreements in the Gulf of Guayaquil, Ecuador," *Maritime Studies* 24, no. 3 (2025): 50, <https://doi.org/10.1007/s40152-025-00444-x>.
- 2 EUMOFA, *The EU Fish Market: 2025 Edition* (2025), <https://eumofa.eu/-the-eu-fish-market-2025-edition-is-online>.
- 3 EUMOFA, *The EU Fish Market: 2025 Edition*.
- 4 Javier García Roperó, "El Dueño de Profand, Principal Proveedor de Pescado de Mercadona, Toma El Mando Total Tras Recuperar El 100% de La Compañía y Suprimir Su Consejo," *Cinco Días*, May 2, 2025, <https://archive.ph/SN0gG>.
- 5 Chávez-Páez et al., "Navigating the Tides of Conservation and Conflict," 2025.
- 6 Reuters, "Ecuadorian Shrimp Sales Rebound in 2025, Surpass Oil Exports- Producers' Association | Reuters," *Reuters*, February 16, 2026, <https://www.reuters.com/world/americas/ecuadorian-shrimp-sales-rebound-2025-surpass-oil-exports-producers-association-2026-02-16/>.
- 7 Mónica Mendoza Saltos, "Estas son las 10 mayores exportadoras de camarón ecuatoriano," *Forbes Ecuador*, February 19, 2025, <https://www.forbes.com.ec/rankings/estas-son-10-mayores-exportadoras-camaron-ecuatoriano-n67863>.
- 8 EUMOFA, *The EU Fish Market: 2025 Edition*.
- 9 World Forest ID, "Supermarket Shrimp Is Widely Mislabeled, Our Research Finds," *World Forest ID*, April 21, 2026, <https://worldforestid.org/insights/farmed-shrimp-origin>.
- 10 Monterey Bay Aquarium Seafood Watch, *Whiteleg Shrimp – Litopenaeus Vannamei* (n.d.), accessed May 6, 2026, <https://www.seafoodwatch.org/recommendation/shrimp/whiteleg-shrimp-30539>.
- 11 Chávez-Páez et al., "Navigating the Tides of Conservation and Conflict," 2025.
- 12 Chávez-Páez et al., "Navigating the Tides of Conservation and Conflict," 2025.
- 13 Skretting, "Impact Report 2024," *Skretting*, 2024, <https://www.skretting.com/en/news-and-stories/>.
- 14 Chávez-Páez et al., "Navigating the Tides of Conservation and Conflict," 2025.
- 15 Earthworm, "From Ecuador to France: A Collaborative Effort to Build a Sustainable Shrimp Supply Chain," *English*, September 17, 2024, <https://earthworm.org/news-stories/ecuador-france-sustainable-shrimp-supply-chain>.
- 16 International Labour Organization, "Trabajo decente en los sectores pesca y acuicultura en América Latina y el Caribe," *International Labour Organization*, March 1, 2024, <https://www.ilo.org/es/publications/trabajo-decente-en-los-sectores-pesca-y-acuicultura-en-america-latina-y-el>.
- 17 European Market Observatory for Fisheries and Aquaculture Products (EUMOFA), *The EU Fish Market: 2025 Edition* (2025), <https://eumofa.eu/-the-eu-fish-market-2025-edition-is-online>.
- 18 EUMOFA, *The EU Fish Market: 2025 Edition*. P.80
- 19 Foodrise, "Blue Empire," *Foodrise*, 2024, <https://foodrise.org.uk/research/blue-empire/>.
- 20 EUMOFA, *The EU Fish Market: 2025 Edition*.
- 21 EUMOFA, "Monthly Highlights (July 2025): Development of the Trade Flows of Fishery and Aquaculture Products between the EU and the Andean Community."
- 22 EUMOFA, *The EU Fish Market: 2025 Edition* (2025), <https://eumofa.eu/-the-eu-fish-market-2025-edition-is-online>.
- 23 EUMOFA, *The EU Fish Market: 2025 Edition*.
- 24 ICES, *Working Group on Crangon Fisheries and Life History (WGCRAN; Outputs from 2024 Meeting)*, report (ICES Scientific Reports, 2025), <https://doi.org/10.17895/ices.pub.28638743.v1>.
- 25 EUMOFA, *The EU Fish Market: 2025 Edition*. P. 78
- 26 EUMOFA, *The EU Fish Market: 2025 Edition*.
- 27 EUMOFA, *The EU Fish Market: 2025 Edition*.
- 28 EUMOFA, *The EU Fish Market: 2025 Edition*.
- 29 Cámara Nacional de Acuicultura, "Unión Europea: Importaciones de Camarón a Mayo 2023," *Shrimp Market Data*, August 4, 2025, <https://www.cna-ecuador.com/shrimp-market-data/>.
- 30 Cámara Nacional de Acuicultura, "Unión Europea: Importaciones de Camarón a Mayo 2023."
- 31 Chris Chase, "Profand Hits EUR 1.1 Billion in Revenue, Continues Growth Trajectory," *Seafood Source*, April 17, 2026, <https://www.seafoodsource.com/news/business-finance/profand-hits-eur-1-1-billion-in-revenue-continues-growth-trajectory>.
- 32 Cámara Nacional de Acuicultura, "Unión Europea: Importaciones de Camarón a Mayo 2023"; EUMOFA, *The EU Fish Market: 2025 Edition*.
- 33 EUMOFA, *The EU Fish Market: 2025 Edition*.
- 34 Monterey Bay Aquarium Seafood Watch, *Whiteleg Shrimp – Litopenaeus Vannamei* (n.d.), accessed May 6, 2026, <https://www.seafoodwatch.org/recommendation/shrimp/whiteleg-shrimp-30539>.
- 35 Monterey Bay Aquarium Seafood Watch, *Whiteleg Shrimp – Litopenaeus Vannamei*.
- 36 Monterey Bay Aquarium Seafood Watch, *Whiteleg Shrimp – Litopenaeus Vannamei*.
- 37 Monterey Bay Aquarium Seafood Watch, *Whiteleg Shrimp – Litopenaeus Vannamei*.
- 38 FAO, *The State of World Fisheries and Aquaculture 2026. Blue Transformation: Turning Vision into Impact*, *The State of World Fisheries and Aquaculture (SOFIA) 2026* (FAO, 2026), <https://doi.org/10.4060/millscd8357en>.

- 39 IFFO The Marine Ingredients Organisation, "Marine Ingredients Market Trends: All Eyes on Peru, While China's Domestic Production of Marine Ingredients Remains Constrained | IFFO – The Marine Ingredients Organisation," January 6, 2026, <https://www.iffo.com/marine-ingredients-market-trends-all-eyes-peru-while-chinas-domestic-production-marine-ingredients>.
- 40 John Evans, "Canceled Peru Anchovy Season Costs Industry \$1 Billion; Fishmeal Plants Shut down for First Time in 30 Years," August 21, 2023, <https://www.intrafish.com/fisheries/canceled-peru-anchovy-season-costs-industry-1-billion-fishmeal-plants-shut-down-for-first-time-in-30-years/2-1-1504344>.
- 41 IFFO The Marine Ingredients Organisation, "Marine Ingredients Market Trends: All Eyes on Peru, While China's Domestic Production of Marine Ingredients Remains Constrained | IFFO – The Marine Ingredients Organisation."
- 42 Ricardo Oliveros-Ramos and Yunne-Jai Shin, "Future Climate Change Impacts on Anchoveta (*Engraulis Ringens*) in the Northern Peru Current Ecosystem," preprint, bioRxiv, February 15, 2023, 2023.02.14.528548, <https://doi.org/10.1101/2023.02.14.528548>.
- 43 J. Poore and T. Nemecek, "Reducing Food's Environmental Impacts through Producers and Consumers | Science," *Science* 360, no. 6932 (2018), <https://www.science.org/doi/10.1126/science.aag0216>.
- 44 Earthworm, "From Ecuador to France: A Collaborative Effort to Build a Sustainable Shrimp Supply Chain," English, September 17, 2024, <https://earthworm.org/news-stories/ecuador-france-sustainable-shrimp-supply-chain>.
- 45 Wendy Chávez-Páez et al., "Navigating the Tides of Conservation and Conflict: The Political Ecology of Mangrove Ecosystem Sustainable Use and Custody Agreements in the Gulf of Guayaquil, Ecuador," *Maritime Studies* 24, no. 3 (2025): 50, <https://doi.org/10.1007/s40152-025-00444-x>.
- 46 Chávez-Páez et al., "Navigating the Tides of Conservation and Conflict," 2025.
- 47 Wendy Chávez-Páez et al., "Navigating the Tides of Conservation and Conflict: The Political Ecology of Mangrove Ecosystem Sustainable Use and Custody Agreements in the Gulf of Guayaquil, Ecuador," *Maritime Studies* 24, no. 3 (2025): 50, <https://doi.org/10.1007/s40152-025-00444-x>.
- 48 Chávez-Páez et al., "Navigating the Tides of Conservation and Conflict," 2025.
- 49 Chávez-Páez et al., "Navigating the Tides of Conservation and Conflict," 2025.
- 50 Monterey Bay Aquarium, *Warmwater Shrimp Social Risk Profile | Forced Labor, Human Trafficking, and Hazardous Child Labor Risks | Ecuador, Aquaculture and Processing*, Seafood Social Risk Tool (2025), <https://www.montereybayaquarium.org/act-for-the-ocean/sustainable-seafood/what-we-do/human-rights/seafood-social-risk-tool>.
- 51 Chávez-Páez et al., "Navigating the Tides of Conservation and Conflict," 2025.
- 52 Chávez-Páez et al., "Navigating the Tides of Conservation and Conflict," 2025.
- 53 Claude Boyd et al., "Resource Use in Whiteleg Shrimp *Litopenaeus Vannamei* Farming in Ecuador – Boyd – 2021 – Journal of the World Aquaculture Society – Wiley Online Library," *Journal of the World Aquaculture Society*, April 6, 2021, <https://onlinelibrary.wiley.com/doi/10.1111/jwas.12818>.
- 54 Fabrizio Marcillo, "Shrimp Farming and the Environment in Ecuador: Past and Present," *World Aquaculture*, September 15, 2017, 39–42.
- 55 Claude Boyd et al., "Resource Use in Whiteleg Shrimp *Litopenaeus Vannamei* Farming in Ecuador – Boyd – 2021 – Journal of the World Aquaculture Society -Wiley Online Library," *Journal of the World Aquaculture Society*, April 6, 2021, <https://onlinelibrary.wiley.com/doi/10.1111/jwas.12818>.
- 56 Boyd et al., "Resource Use in Whiteleg Shrimp *Litopenaeus Vannamei* Farming in Ecuador – Boyd – 2021 – Journal of the World Aquaculture Society – Wiley Online Library."
- 57 Boyd et al., "Resource Use in Whiteleg Shrimp *Litopenaeus Vannamei* Farming in Ecuador – Boyd – 2021 – Journal of the World Aquaculture Society – Wiley Online Library."
- 58 Boyd et al., "Resource Use in Whiteleg Shrimp *Litopenaeus Vannamei* Farming in Ecuador – Boyd – 2021 – Journal of the World Aquaculture Society – Wiley Online Library."
- 59 Boyd et al., "Resource Use in Whiteleg Shrimp *Litopenaeus Vannamei* Farming in Ecuador – Boyd – 2021 – Journal of the World Aquaculture Society – Wiley Online Library."
- 60 Boyd et al., "Resource Use in Whiteleg Shrimp *Litopenaeus Vannamei* Farming in Ecuador – Boyd – 2021 – Journal of the World Aquaculture Society – Wiley Online Library."
- 61 Boyd et al., "Resource Use in Whiteleg Shrimp *Litopenaeus Vannamei* Farming in Ecuador – Boyd – 2021 – Journal of the World Aquaculture Society – Wiley Online Library."
- 62 Wendy Chávez-Páez et al., "Navigating the Tides of Conservation and Conflict: The Political Ecology of Mangrove Ecosystem Sustainable Use and Custody Agreements in the Gulf of Guayaquil, Ecuador," *Maritime Studies* 24, no. 3 (2025): 50, <https://doi.org/10.1007/s40152-025-00444-x>.
- 63 Chávez-Páez et al., "Navigating the Tides of Conservation and Conflict," 2025.
- 64 Wendy Chávez-Páez et al., "Navigating the Tides of Conservation and Conflict: The Political Ecology of Mangrove Ecosystem Sustainable Use and Custody Agreements in the Gulf of Guayaquil, Ecuador," *Maritime Studies* 24, no. 3 (2025): 50, <https://doi.org/10.1007/s40152-025-00444-x>.
- 65 La Hora, "Los manglares se destruyen con autorización," LA HORA, February 17, 2022, <https://www.lahora.com.ec/archivo/Los-manglares-se-destruyen-con-autorizacion-20220217-0048.html>.

References

- 66 Emily Randall, "Partner Letter Urges IFC to Reject Loan for Shrimp Giant Santa Priscila in Ecuador (May 2022)," *Stop Financing Factory Farming*, May 19, 2022, <https://stopfinancingfactoryfarming.com/publications/partner-letter-to-ifc-industrial-pesquera-santa-priscila-ecuador-may-2022>.
- 67 Fabrizio Marcillo, "Shrimp Farming and the Environment in Ecuador: Past and Present," *World Aquaculture*, September 15, 2017, 39–42.
- 68 Marcillo, "Shrimp Farming and the Environment in Ecuador."
- 69 Marcillo, "Shrimp Farming and the Environment in Ecuador."
- 70 J. Rodríguez et al., "White Spot Syndrome Virus Infection in Cultured *Penaeus Vannamei* (Boone) in Ecuador with Emphasis on Histopathology and Ultrastructure," *Journal of Fish Diseases* 26, no. 8 (2003): 439–50, <https://doi.org/10.1046/j.1365-2761.2003.00483.x>.
- 71 Marcillo, "Shrimp Farming and the Environment in Ecuador."
- 72 Monterey Bay Aquarium Seafood Watch, *Whiteleg Shrimp – Litopenaeus Vannamei* (n.d.), accessed May 6, 2026, <https://www.seafoodwatch.org/recommendation/shrimp/whiteleg-shrimp-30539>.
- 73 Monterey Bay Aquarium Seafood Watch, *Whiteleg Shrimp – Litopenaeus Vannamei*.
- 74 Lovely Akter et al., "Antimicrobial Resistance in Shrimp Aquaculture: Pathways, Ecosystem Risks, and Policy Responses," *Environmental Challenges* 22 (March 2026): 101401, <https://doi.org/10.1016/j.envc.2025.101401>.
- 75 Tilden M. Mitchell et al., "Analysis of Antibiotic Resistance Genes (ARGs) across Diverse Bacterial Species in Shrimp Aquaculture," *Antibiotics* 13, no. 9 (2024): 825, <https://doi.org/10.3390/antibiotics13090825>.
- 76 Chávez-Páez et al., "Navigating the Tides of Conservation and Conflict," 2025.
- 77 Monterey Bay Aquarium, *Warmwater Shrimp Social Risk Profile | Forced Labor, Human Trafficking, and Hazardous Child Labor Risks | Ecuador, Aquaculture and Processing*, Seafood Social Risk Tool (2025), <https://www.montereybayaquarium.org/act-for-the-ocean/sustainable-seafood/what-we-do/human-rights/seafood-social-risk-tool>.
- 78 International Labour Organization, "Trabajo decente en los sectores pesca y acuicultura en América Latina y el Caribe," International Labour Organization, March 1, 2024, <https://www.ilo.org/es/publications/trabajo-decente-en-los-sectores-pesca-y-acuicultura-en-america-latina-y-el>.
- 79 Chávez-Páez et al., "Navigating the Tides of Conservation and Conflict," 2025.
- 80 Chávez-Páez et al., "Navigating the Tides of Conservation and Conflict," 2025.
- 81 Chávez-Páez et al., "Navigating the Tides of Conservation and Conflict," 2025.
- 82 Chávez-Páez et al., "Navigating the Tides of Conservation and Conflict," 2025.
- 83 Chávez-Páez et al., "Navigating the Tides of Conservation and Conflict," 2025.
- 84 Reuters, "Ecuadorian Shrimp Sales Rebound in 2025, Surpass Oil Exports-Producers' Association | Reuters," *Reuters*, February 16, 2026, <https://www.reuters.com/world/americas/ecuadorean-shrimp-sales-rebound-2025-surpass-oil-exports-producers-association-2026-02-16/>.
- 85 Cámara Nacional de Acuicultura, "REVISTA AQUACULTURA 169," *Issuu*, March 2, 2026, https://issuu.com/revista-cna/docs/revista_aquacultura_169.
- 86 Reuters, "Ecuadorian Shrimp Sales Rebound in 2025, Surpass Oil Exports-Producers' Association | Reuters."
- 87 Monterey Bay Aquarium Seafood Watch, *Whiteleg Shrimp – Litopenaeus Vannamei*.
- 88 Monterey Bay Aquarium, *Warmwater Shrimp Social Risk Profile | Forced Labor, Human Trafficking, and Hazardous Child Labor Risks | Ecuador, Aquaculture and Processing*.
- 89 Mónica Mendoza Saltos, "Estas son las 10 mayores exportadoras de camarón ecuatoriano," *Forbes Ecuador*, February 19, 2025, <https://www.forbes.com.ec/rankings/estas-son-10-mayores-exportadoras-camaron-ecuadoriano-n67863>.
- 90 Saltos, "Estas son las 10 mayores exportadoras de camarón ecuatoriano."
- 91 Monterey Bay Aquarium, *Warmwater Shrimp Social Risk Profile | Forced Labor, Human Trafficking, and Hazardous Child Labor Risks | Ecuador, Aquaculture and Processing*.
- 92 S.O.N.G.A, "About Us," S.O.N.G.A, February 14, 2020, <https://www.songa.com/en/about-us/>.
- 93 Saltos, "Estas son las 10 mayores exportadoras de camarón ecuatoriano."
- 94 "Mitsui Raises Shrimp Stakes with \$360m Investment in Santa Priscilla," *The Fish Site*, August 9, 2023, <https://thefishsite.com/articles/mitsui-raises-shrimp-stakes-with-360m-investment-in-santa-priscilla>.
- 95 Cargill, "Cargill to Enter into Joint Venture to Increase Production Capacity in Ecuador's Shrimp Feed Market," October 28, 2022, <https://www.cargill.com/2022/cargill-to-enter-into-joint-venture-to-increase-production>.
- 96 Omarsa, "About our facilities," *Omarsa*, 2025, <https://www.omarsa.com.ec/facilities/>.
- 97 Lucy Towers, "Acquisition in Ecuador Takes Nutreco to Global Top Three Shrimp Feed Producer," *The Fish Site*, October 9, 2012, <https://thefishsite.com/articles/acquisition-in-ecuador-takes-nutreco-to-global-top-three-shrimp-feed-producer>.
- 98 "EMPACRECI S.A Acquired by Grupo Brito | M&A News," *Signalbase*, May 13, 2025, <https://www.trysignalbase.com/news/acquisitions/empacreci-sa-acquired-by-grupo-brito-acquisition>.

- 99 Cofimar, *Cofimar – Somos Una Compañía Camaronera*, 2026, <https://cofimar.ec/en/>.
- 100 Fish Site, “Mitsui Raises Shrimp Stakes with \$360m Investment in Santa Priscilla.”
- 101 Chris Chase, “Profand Hits EUR 1.1 Billion in Revenue, Continues Growth Trajectory,” Seafood Source, April 17, 2026, <https://www.seafoodsource.com/news/business-finance/profand-hits-eur-1-1-billion-in-revenue-continues-growth-trajectory>.
- 102 “La pesquera viguesa Profand compra una planta en Boston y entra en la acuicultura de langostino,” La Voz de Galicia, April 18, 2024, <https://www.lavozdegalicia.es/noticia/somosmar/2024/04/18/profand-mantiene-facturacion-incrementa-ebitda-invierte-planta-boston/00031713454091553449513.htm>.
- 103 Javier García Ropero, “El Dueño de Profand, Principal Proveedor de Pescado de Mercadona, Toma El Mando Total Tras Recuperar El 100% de La Compañía y Suprimir Su Consejo,” *Cinco Días*, May 2, 2025, <https://archive.ph/SN0gG>.
- 104 Savilla, “Savills UK | Food Distribution in Spain,” February 2026, <https://pdf.euro.savills.co.uk/spain/nat-eng-2026/2026-supermercados-ing-febrero.pdf>.
- 105 Rethink Priorities, “Our Research Areas,” Rethink Priorities, July 2026, <https://rethinkpriorities.org/research-area/estimating-the-number-of-shrimp-in-major-european-markets/>.
- 106 SHV, “Financial Information,” SHV, 2025, <https://www.shv.nl/financial-information/>.
- 107 Biomar, “Q1 Report 2026: 2026 Quarterly Reports,” Biomar, 2026, <https://www.biomar.com/our-promise/annual-report>.
- 108 Biomar, *2024 Annual Report* (2025), <https://www.biomar.com/our-promise/annual-report>.
- 109 Cargill, “Cargill to Enter into Joint Venture to Increase Production Capacity in Ecuador’s Shrimp Feed Market,” October 28, 2022, <https://www.cargill.com/2022/cargill-to-enter-into-joint-venture-to-increase-production>.
- 110 Skretting, “Impact Report 2024,” Skretting, 2024, <https://www.skretting.com/en/news-and-stories/>.
- 111 “Impact Report 2025,” Skretting, accessed June 3, 2026, <https://www.skretting.com/en/sustainability/sustainability-reporting/impact-report-2025/>.
- 112 Alicorp, “Alicorp Reports 2025 Financial Results | Alicorp,” Alicorp Reports 2025 Financial Results | Alicorp, February 16, 2026, <https://www.alicorp.com.pe/en/news/alicorp-reports-2025-financial-results>.
- 113 Skretting, “Impact Report 2024.”
- 114 Skretting, “Impact Report 2024,” Skretting, 2024, <https://www.skretting.com/en/news-and-stories/>.
- 115 Skretting, “New Feed Plant to Support Shrimp Farming Growth,” Skretting, July 7, 2017, <https://www.skretting.com/en/news-and-stories/new-feed-plant-to-support-shrimp-farming-growth/>.
- 116 G. Cantos et al., “Study of Consumer Perceptions of Sustainable Fishery Products,” *Aquaculture* 610 (January 2026): 742926, <https://doi.org/10.1016/j.aquaculture.2025.742926>.
- 117 Cantos et al., “Study of Consumer Perceptions of Sustainable Fishery Products.”
- 118 World Forest ID, “Supermarket Shrimp Is Widely Mislabeled, Our Research Finds,” World Forest ID, April 21, 2026, <https://worldforestid.org/insights/farmed-shrimp-origin>.
- 119 Find Certified Fish Farm Locations - ASC International,” accessed July 6, 2026, <https://asc-aqua.org/find-a-farm/>.
- 120 Monterey Bay Aquarium, *Warmwater Shrimp Social Risk Profile | Forced Labor, Human Trafficking, and Hazardous Child Labor Risks | Ecuador, Aquaculture and Processing*, Seafood Social Risk Tool (2025), <https://www.montereybayaquarium.org/act-for-the-ocean/sustainable-seafood/what-we-do/human-rights/seafood-social-risk-tool>.

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