FAIRR
A COLLER INITIATIVE

Tracing Risk and Opportunity: The Critical Need for Traceability in Today's Seafood Supply Chains

Seafood Traceability Engagement Phase 1

PROGRESS REPORT – DECEMBER 2024

Partner organisations

The FAIRR Initiative is an investor network with over 400 members, representing over US $75 trillion in AUM. Our mission is to build an awareness of the most material risks and opportunities in the food sector across the whole investor community. We provide investors with the data, research and tools they need to minimise the risks within the broader food system at every touchpoint. By filling the knowledge gap around ESG issues in animal agriculture and aquaculture, FAIRR empowers investors to engage as shareholders with companies in the global food supply chain – from protein producers to global retailers – on ESG risks ranging from climate, pollution and labour issues to antimicrobial resistance. In doing so, we aim to harness the power of capital markets to build a more sustainable and equitable food system.

UNEP Finance Initiative brings together a large network of banks, insurers and investors that collectively catalyses action across the financial system to deliver more sustainable global economies. For more than 30 years the initiative has been connecting the UN with financial institutions from around the world to shape the sustainable finance agenda. It has established the world's foremost sustainability frameworks that help the finance industry address global environmental, social and governance (ESG) challenges. Convened by a Geneva, Switzerland-based secretariat, more than 500 banks and insurers with assets exceeding US $100 trillion work together to facilitate the implementation of UNEP FI's Principles for Responsible Banking and Principles for Sustainable Insurance. Financial institutions work with UNEP FI on a voluntary basis and the initiative helps them to apply the industry frameworks and develop practical guidance and tools to position their businesses for the transition to a sustainable and inclusive economy. Since 2019, UNEP FI has hosted the Sustainable Blue Economy Finance Initiative to connect financial institutions from around the world to share the sustainable blue economy.

Planet Tracker is a non-profit think tank focused on sustainable finance. It engages directly with the financial system and corporate management to drive transformation of global financial activities, achieve real world change in our means of production and align investment with a resilient, just, net-zero and nature-positive economy.

The World Benchmarking Alliance (WBA) is a non-profit organisation holding 2,000 of the world's most influential companies accountable for their part in achieving the Sustainable Development Goals. It does this by publishing free and publicly available benchmarks on their performance.

World Wildlife Fund (WWF) is one of the world's largest and most respected independent conservation organisations. WWF's mission is to stop the degradation of the earth's natural environment and to build a future in which humans live in harmony with nature. WWF's blue finance work aims to support financial institutions to shift capital away from harmful activities in the blue economy and to support the delivery of scalable, durable global oceans solutions. For more information, please visit www.worldwildlife.org/pages/blue-finance.

We would also like to extend our sincere gratitude to **ClientEarth** for their support and collaboration in the development of section *2.4: Key policies and regulations related to traceability*.

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Foreword

The ocean is essential to a healthy global economy and a resilient climate, and its importance is becoming increasingly evident to world leaders, demonstrated recently at the UN Biodiversity Conference (COP16) in Cali, Colombia, where delegates agreed on the first ever protocol to protect unique parts of the high seas – the two-thirds of the world's oceans that are international waters. With its natural assets estimated to have a value of US $24 trillion – equivalent to the world's 7th largest economy – financial institutions are also increasingly looking to the ocean as a new source of opportunity. However, the rapid unsustainable growth of ocean-linked sectors is leading to environmental and social risks and impacts, eroding the ocean's natural resource base and creating regulatory, market, reputational and physical risks for financial institutions and their clients.

For this reason, World Wildlife Fund (WWF) and the United Nations Environment Programme Finance Initiative (UNEP FI) have collaborated since 2018, alongside the World Resources Institute, the European Investment Bank and the European Commission, to promote the Sustainable Blue Economy Finance Principles and create the tools, resources, and platforms to support banks and investors to direct capital away from harmful practices in the ocean, including in the seafood sector, towards more sustainable and resilient outcomes.

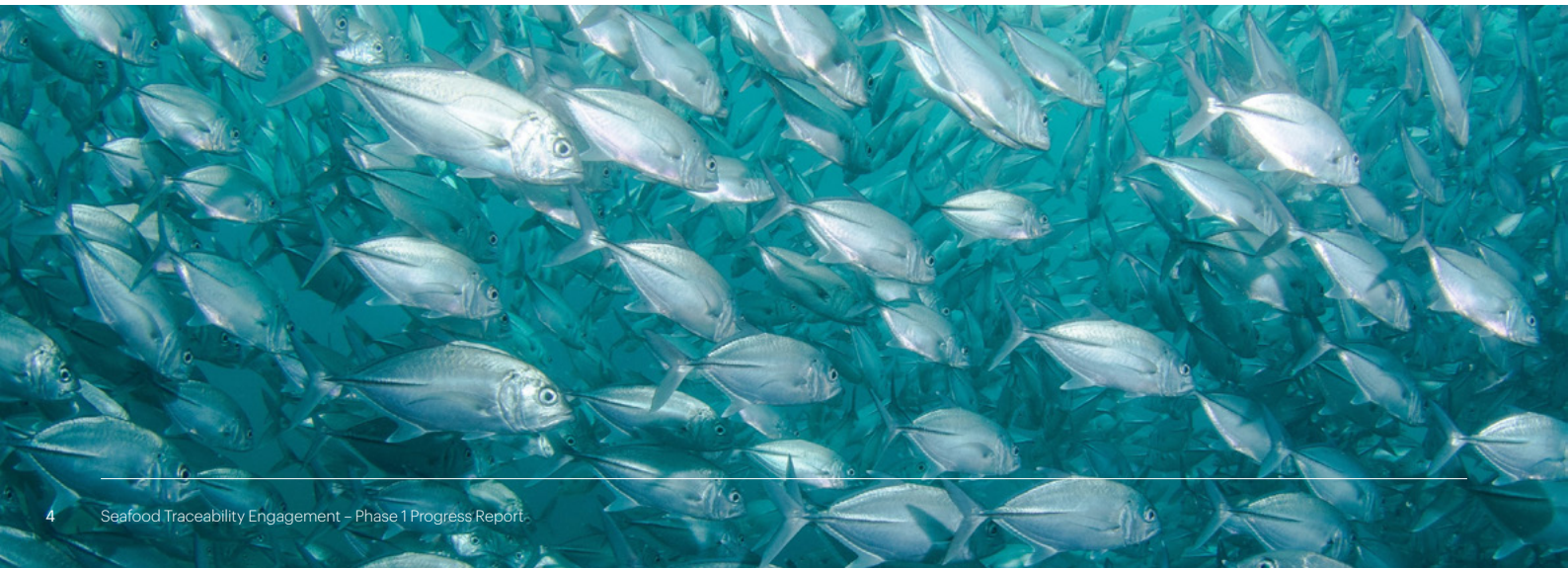
That is why we are thrilled to be part of the unique collaboration of organisations that launched the Seafood Traceability investor engagement in 2023, to drive forward a lasting transition towards a sustainable seafood sector. Seafood is one of the world's most traded and significant food commodities, feeding billions, employing millions, and playing a significant role in global, regional, and local economies. Its continued production is highly dependent on a healthy ocean. However, current practices can have significant impacts on nature and people, and as a result, the industry faces rising operational, market, regulatory, and reputational risks.

WWF and UNEP FI are proud to be working alongside the FAIRR Initiative (FAIRR), Planet Tracker and the World Benchmarking Alliance (WBA), combining our expertise, to establish an impactful model for influencing corporate sustainability action in global seafood supply chains through collective investor engagement. Through strengthened collaboration with global seafood investors, our ambition is to drive improvements in traceability as a first step, with the aim of reducing and ultimately eliminating harmful practices, including Illegal, Unreported and Unregulated (IUU) fishing, habitat conversion and overfishing.

In its first year, the Seafood Traceability engagement has supported 35 institutional investors, managing US $6.5 trillion in combined assets, to encourage constructive dialogues with seven key companies in the seafood sector. This report provides a summary of the first year of these efforts. We are looking forward to building on this initial success and to seeing a strong opportunity to grow this momentum in the years ahead.

Louise Heaps
Global Lead Sustainable Blue Economy
WWF-US

Romie Goedicke den Hertog
Nature Co-lead,
UNEP FI



Executive summary

Seafood is one of the most important food commodities in the world, providing food for billions,[1] employment for millions,[2] and serving as a key trade commodity in the global economy.[3] As global demand for seafood continues to grow and seafood supply chains become increasingly complex, transnational, and opaque, the sector must enhance efforts to address persistent and serious environmental and social issues including Illegal, Unreported, and Unregulated (IUU) fishing, forced labour and human rights violations, and the growing impacts of climate change, all of which expose seafood businesses and their stakeholders to material risks.

Improved transparency about the origin and production methods of seafood is a critical first step towards eliminating these issues across supply chains. Supply chain traceability is an essential tool that can enable this transparency. Yet, while research supporting the long-term financial case for corporate investment in traceability is compelling, the overwhelming majority of global seafood supply today is still not adequately traceable.

Investors, as shareholders and lenders, play a critical role in incentivising and supporting their portfolio companies to adopt robust traceability systems and improve the transparency of their business operations, commitments, and actions.

During 2024, the FAIRR Seafood Traceability engagement brought together 35 investors representing over US $6.5 trillion in combined assets to engage seven of the world's largest publicly-traded seafood companies on their traceability practices.

Key findings:

1. **Seafood companies' traceability commitments vary in clarity and ambition.** Only two out of the seven companies assessed - Thai Union and CP Foods - have relatively strong traceability commitments at the group level, covering all seafood products and aquaculture feed ingredients. Other companies have a limited commitment, such as at the subsidiary or associate level, covering only specific locations or species, or focusing solely on certified seafood rather than on full-chain, digital and interoperable traceability.
2. **Even where traceability commitments are strong, progress reporting lags significantly.** Just two companies, Thai Union and CP Foods, report progress towards their traceability targets annually, but this disclosure remains limited to particular species, regions, or subsidiaries. Key challenges that all seven companies discussed include a lack of data, a reliance on paper-based rather than digitised data, an ageing workforce in the seafood sector, a lack of technical capacity, and the need for sector-wide collaboration.
3. **The role of certification is prominent in companies' sustainability strategies, and there is a clear ambition to increase their use. While this is a positive trend, companies and investors must be careful not to confuse the Chain of Custody assurance provided by third-party certifications with a company's own ability to track a product's history and origins through full-chain, digital and interoperable traceability.** Standards, such as those by the Global Dialogue on Seafood Traceability (GDST) can facilitate the cross-industry collaboration needed to achieve this capability.
4. **New global frameworks are making traceability more important than ever**. The European Sustainability Reporting Standards (ESRS) emphasise that supply chain traceability is critical to understanding and reporting risks, impacts, and opportunities. The voluntary Taskforce on Nature-related Financial Disclosures (TNFD), launched in 2023, is gaining momentum in the sector. Supply chain visibility enabled by robust traceability systems would help companies meet current and future requirements to assess and report their impacts and dependencies on nature more effectively. Regulations in the EU, US and Japan require traceability already, with sanctions ranging from fines to stock exchange delisting for non-compliance.

Supply chain traceability is paramount to navigating the complex environmental and social challenges faced by companies and investors in the seafood industry. Companies can play an essential role by making, and publicly reporting their progress towards time-bound traceability commitments aligned to common standards like the GDST.

In the first year of the Seafood Traceability engagement, FAIRR and its partner organisations were pleased by the level of engagement by all seven companies, and look forward to increasing that engagement in Phase 2, commencing in 2025.

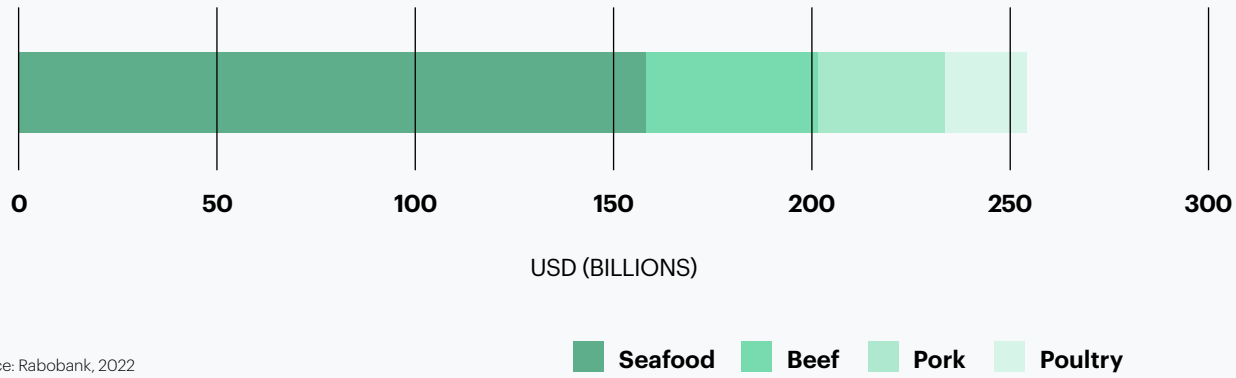
1. Background

1.1. Global seafood production and consumption are high and rising

The world is producing and consuming more seafood than ever. According to the Food & Agriculture Organization (FAO), global capture and production reached 223 million tonnes in 2022 – a 123% increase since 1990, worth a total of US $472 billion.[4] In addition, demand for seafood is expected to continue growing throughout the next decade – with estimates suggesting a 10% increase in consumption by 2032.[5]

This growing demand for seafood is largely being driven by rising global incomes, population growth, more efficient production practices, and demand for protein-rich foods.[6] Seafood represents 15% of animal proteins consumed worldwide, and more than 50% in several African and Asian countries.[7] In fact, seafood is already the most-traded animal protein in terms of overall value, making up trade flows worth more than beef, pork, and poultry put together.[8]

Figure 1: Seafood accounts for more global trade than beef, pork, and poultry combined



Source: Rabobank, 2022

1.2. The seafood industry faces complex challenges

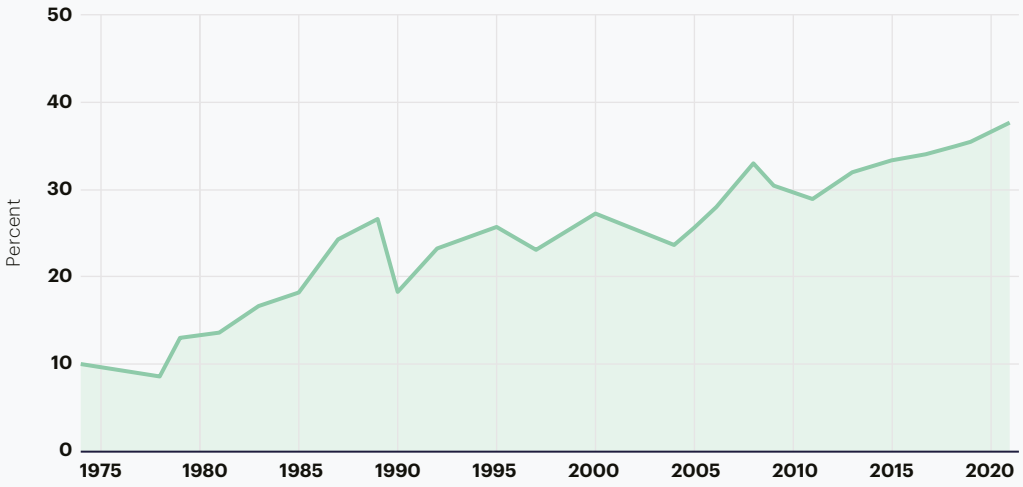
The seafood industry plays an essential role in the global food system and the global economy. However, the industry faces a series of unique challenges.

Operational and legal issues

More than any other animal protein, seafood is traded through "highly complex, fragmented, and opaque supply chains"[12] that are global in scale, and involve a multitude of different stakeholders, making it notoriously difficult to track products from catch to consumption. As a result, seafood is one of the most illegally-produced commodities in the world, with with 20% of global wild-caught seafood being linked to Illegal, Unreported and Unregulated (IUU) fishing.[10] IUU fishing already costs the global economy between US $15 billion and US $36 billion per year in unpaid taxes, customs and licence fees, as well as illegal profits[11] – and these figures do not capture the long-term costs associated with declining fish stocks. Furthermore, not only does IUU fishing undermine global efforts to manage fish stocks sustainably, but it has known links to human rights violations (e.g. abusive labour practices).[12]

Overfishing poses one of the greatest threats to the health of ocean ecosystems.[13] Removing fish faster than stocks can replenish, and **using destructive fishing methods** (such as blast fishing, cyanide fishing, and bottom trawling) degrades and destabilises ecosystems. The number of overfished stocks globally has tripled in the past 50 years, and the FAO now estimates that 38% of global fish stocks are overfished and a further 50% are "maximally sustainably fished".[14] The proportion of overfished stocks has increased from approximately 10% in 1970's to 38% in 2021. **Climate change is also causing fish stocks to move, and areas that are becoming increasingly fish-rich or fish-poor could face increased conflict and disruptions to food and job security.**[15]

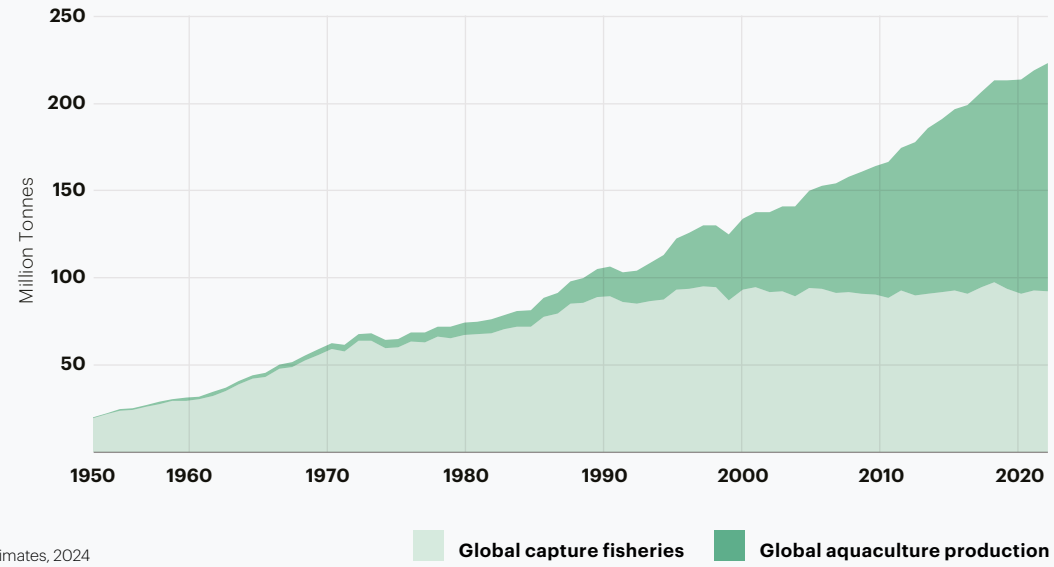
Figure 2: Proportion of overfished stocks, 1974-2021



Source: FAO estimates, 2024

A significant portion of aquaculture production is dependent on wild-caught fish; to keep pace with growing demand in farmed fish, sustainable and traceable sourcing is needed. Since the 1980's, aquaculture has been responsible for an increasing amount of seafood production, comprising 57% of aquatic animal foods for human consumption in 2022.[16] Yet aquaculture is often reliant on wild-caught fish as a key feed ingredient in the form of fish meal and fish oil.[17] In this sense, farmed fish also increases demand for wild-caught fish. With wild-caught fish volumes having peaked in the 1990's,[18] the additional strain from a rapidly growing aquaculture sector adds to the threat to long-term stock sustainability.

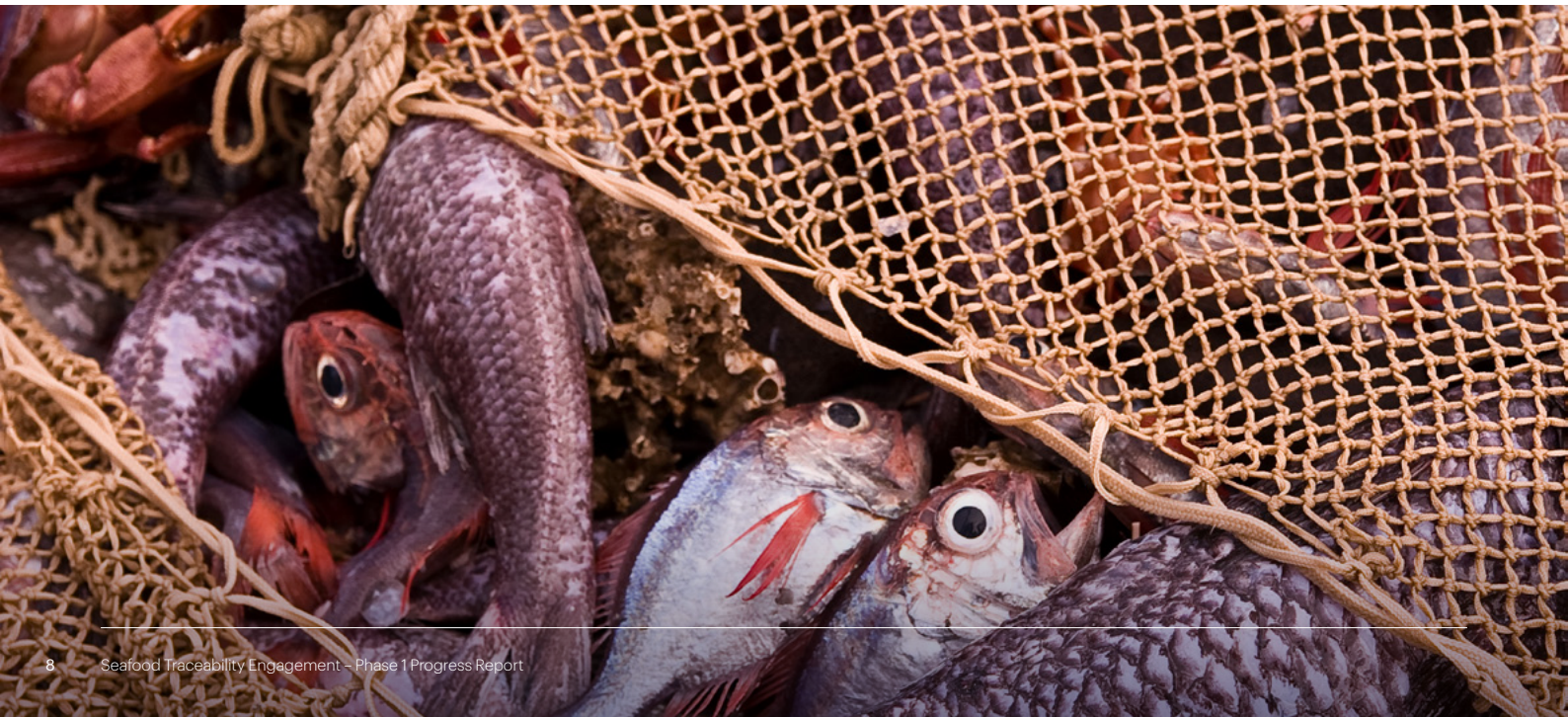
Figure 3: Global fisheries and aquaculture production of aquatic animals



Source: FAO estimates, 2024

Human and labour rights impacts

The UN International Labour Organization (ILO) estimates that approximately 128,000 fishing workers are in forced labour on remote vessels worldwide.[19] Forced labour in fishing is often closely linked to other forms of organised crime such as illegal fishing, document fraud, and human trafficking, making it even more difficult to track.[20] Forced labour has been documented on fishing vessels, in aquaculture facilities and in seafood processing plants.



2. Seafood traceability: a practical guide for investors

2.1. Why is traceability important for companies and their investors?

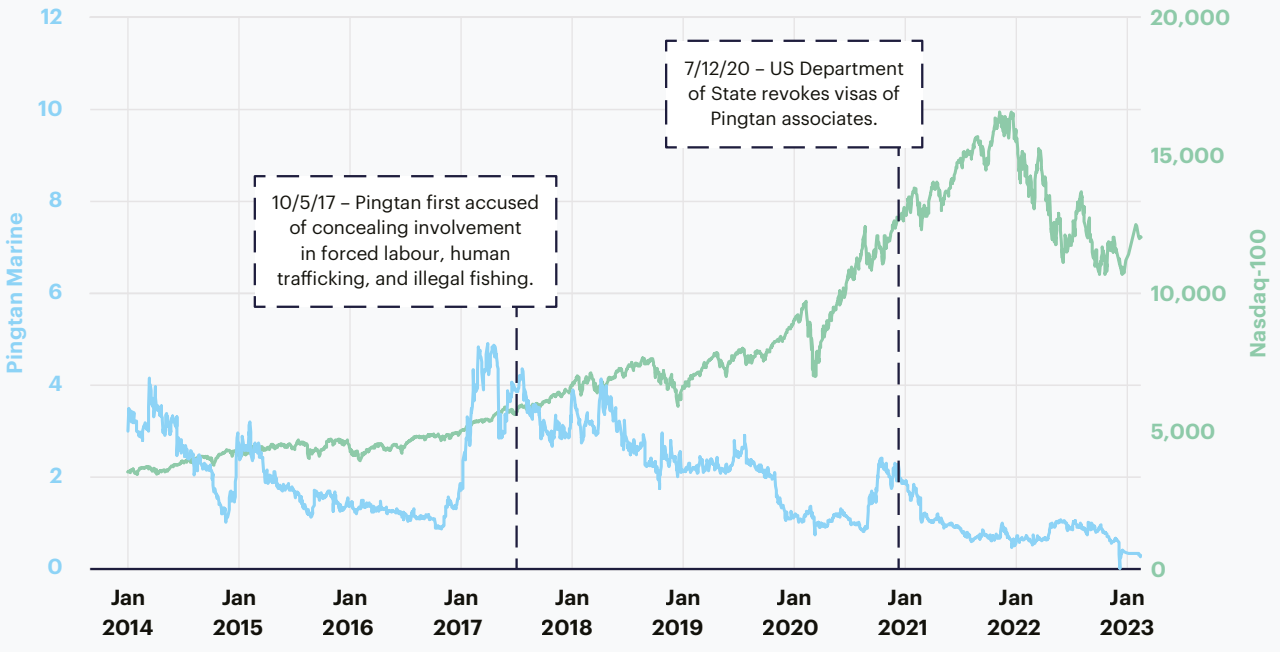
As ocean health declines, the combined impacts of overfishing, habitat destruction, and biodiversity loss, alongside the social impacts of labour and human rights violations, can expose seafood companies, and their investors, to financially material risks, including:

- **Reputational risks:** Opaque supply chains can hide labour and human rights concerns and illegally harvested seafood, creating legal and reputational risks to companies and their financiers.
- **Regulatory risks:** Governments in key seafood import markets are responding to growing concerns over issues such as labour and human rights abuses, enforced by seven-figure fines in Europe[21] and the removal of companies from the stock exchange in the US.[22]
- **Operational risks:** An increasingly erratic seafood supply, induced by overfishing, habitat destruction, climate change and going beyond natural capacity limitations leads to product shortages, price volatility, short-term profits and financial instability, with trillions of seafood company assets at risk as a result.[23]

Case study: Financial materiality

Pingtan Marine Enterprise (PME) is a Chinese seafood company which was delisted from the NASDAQ after repeated accusations of illegal fishing practices. The company was first accused of illegal practices in 2017, and in 2020, further transgressions led the US State Department to revoke visas of several PME associates.[24] After further violations, the company was delisted from the NASDAQ in 2023 – by that time, it had underperformed the index by 94% since 2017.[25]

Figure 4: Pingtan Marine Enterprise's stock price vs. Nasdaq-100 (both in USD)



Source: Nasdaq-100 historical data, 2014-2023

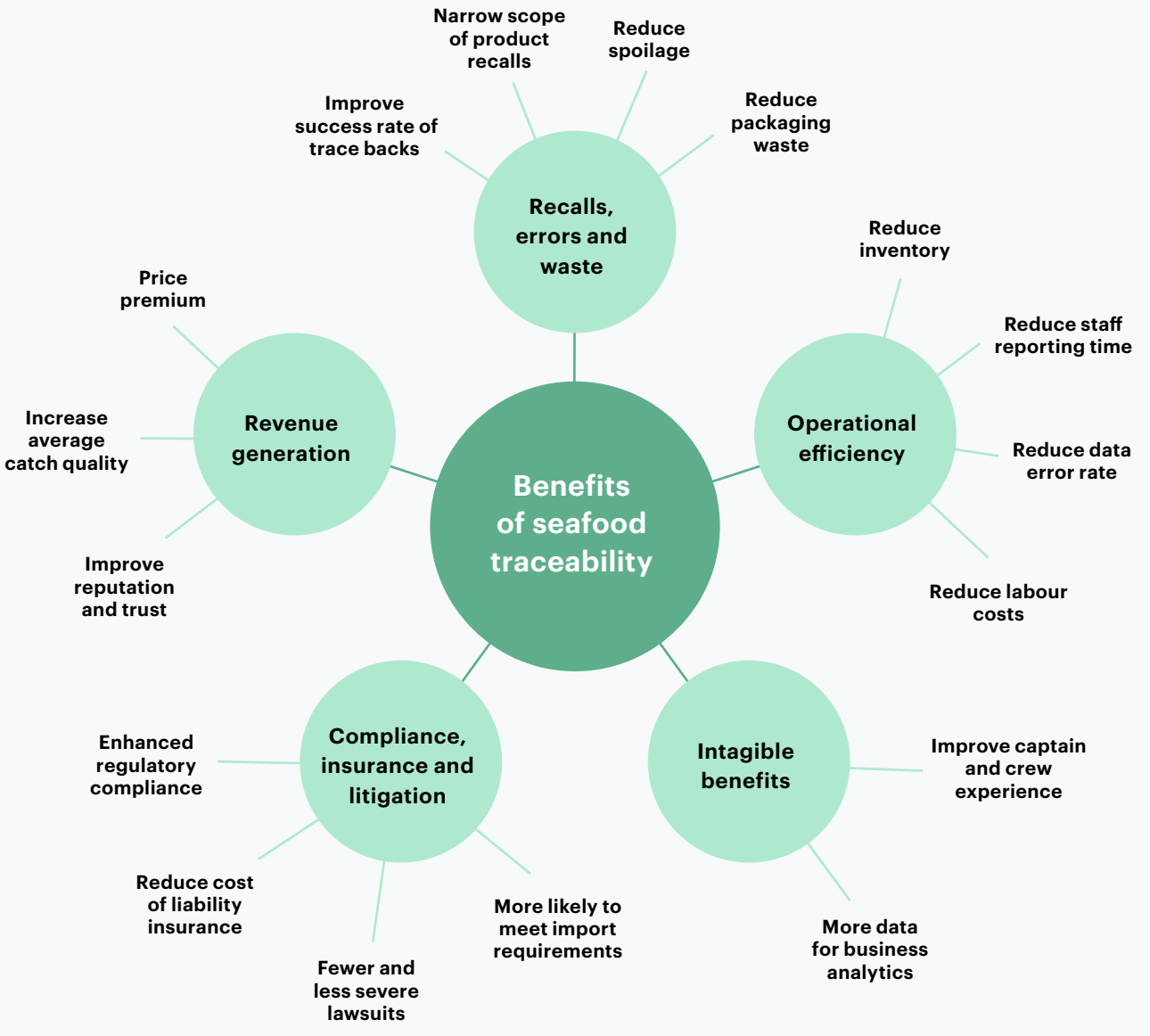
Robust supply chain traceability enables seafood companies to better understand and manage their exposure to these risks, while at the same time providing a number of practical business benefits. Implementing full-chain, digital and interoperable traceability standards can enable seafood companies to substantiate sustainability claims, improve supply chain management, decrease waste and product recalls, and increase profitability.[26]

Research by Planet Tracker estimates that implementing traceability systems could cost as little as 1% of seafood sales but could boost the industry's profitability by 60% by reducing recalls, reducing waste, increasing regulatory compliance, and strengthening brand reputation.[27]

"Ensuring sustainable food systems is a critical global biodiversity challenge. Best practice requires robust traceability practices and a high degree of transparency."

– **Karl Høgtun**, Senior Analyst Responsible Investments, DNB Asset Management

Figure 5: Business benefits of seafood traceability



Source: Adapted from Planet Tracker, 2022

2.2. Key concepts in seafood traceability

Full-chain, digital and interoperable traceability

Traceability is defined as the ability to fully trace a product from the point of sale back to its point of origin, with information available about all stages of production, processing, and distribution.[28]

For seafood companies, traceability is an essential tool that supports enhanced identification and management of environmental and social impacts, dependencies, and the associated risks. Robust traceability systems can also help companies unlock value, for example enabling the validation of sustainability claims to satisfy growing demand for sustainable seafood, while also increasing operational efficiency with more and better data.

For maximum utility, a comprehensive traceability system should address three criteria - it should be **full-chain**, **digital**, and **interoperable** in order to ensure that it is providing a complete measure of traceability, considering all parts of the supply chain, and recording and communicating data in a structured and consistent way.

- **Full-chain** traceability means that the company has information about the supply chain of the product, as well as all of the product's inputs. For wild-caught seafood, this means the ability to trace fish back to the fishing vessel, and for aquaculture, back to the farm. For marine or terrestrial feed ingredients, full-chain traceability goes back to the source of those feed ingredients: the vessel, farm, or geographic location of the plantation (for example for soy or palm oil).
- **Digital** traceability means that the relevant data is stored electronically, rather than in paper systems. Storing data electronically enables systems to communicate information easily, reduces the opportunity for human error, and improves data security.
- **Interoperable** traceability means that the data is stored and represented in a universal way among different operators so that different supply chain actors can read, communicate, and interpret data consistently without the need for transforming data.

Best practice: aligning to the GDST standard

The Global Dialogue on Seafood Traceability (GDST) is a non-profit foundation created through a seafood industry forum first convened in 2017 by WWF and the Institute of Food Technologists (IFT). The GDST is dedicated to creating and sharing a common language for traceability in the seafood supply chain, using data that is both reliable and affordable. In 2020, the GDST published its first universal Standards and Guidelines for Interoperable Seafood Traceability Systems, after years of industry dialogue.[29]

"The GDST Standard and GDST Foundation Partner listings, Commitment Statements and Capability Testing are important tools by which financial institutions can monitor seafood industry progress toward adoption/ implementation of interoperable digital traceability.

The GDST Foundation is honored to be a FAIRR Initiative collaborator and support the seafood industry partner companies that are showing their leadership through the FAIRR Initiative."

– **Huw Thomas**, Interim Executive Director, GDST

The GDST's Core Normative Standards lay out the Critical Tracking Events (CTEs) and the corresponding list of Key Data Elements (KDEs).[30] The CTEs represent various events or activities throughout the supply chain where data capture is necessary to maintain traceability such as fishing, transshipment, shipping, receiving, and transformation (processing). The KDEs captured at each CTE record the who, what, when, and where of a product, as well as data elements critical for identifying IUU fishing and other seafood-related risks.[31]

Table 1: GDST Core Normative Standards

	CRITICAL TRACKING EVENTS (CTEs) → / KEY DATA ELEMENTS (KDEs) ↓	FISHING	ON-VESSEL PROCESSING	TRANS-SHIPMENT	LANDING	(DIS) AGGREGATION	SHIP/ RECEIVE	PROCESSING
Vessel Data (master level)	Vessel Name	✓	✓					
	Vessel Registration	✓	✓					
	Unique Vessel Identification	✓	✓					
	Public Vessel Registry Hyperlink	✓	✓					
	Vessel Flag	✓	✓					
	Availability of Catch Coordinates	✓						
	Satellite Vessel Tracking Authority	✓						
	Transshipment Vessel Name			✓				
	Transshipment Vessel Unique Vessel ID			✓				
	Transshipment Vessel Registration			✓				
	Transshipment Vessel Flag			✓				
Catch Data	Catch Area	✓						
	Fishery Improvement Project	✓						
	Vessel Trip Dates	✓						
	Date(s) of Capture	✓						
	Gear Type	✓						
	Production Method	✓						
Transshipment Data	Transshipment Location			✓				
	Dates of Transshipment			✓				
Landing Data	Landing Location				✓			
	Dates of Landing				✓			
Processing Data	Expiry / Production date		✓					✓
	Product Origin		✓					✓
Certifications and Licences	Fishing Authorisation	✓						
	Harvest Certification	✓						
	Chain of Custody Certification		✓	✓		✓	✓	✓
	Transshipment Authorisation			✓				
	Landing Authorisation				✓			
	Existence of Human Welfare Policy	✓	✓	✓	✓			✓
	Human Welfare Policy Standards	✓	✓	✓	✓			✓
Traceable Object Information	Species	✓	✓	✓	✓	✓	✓	✓
	Product Form	✓	✓	✓	✓	✓	✓	✓
	Item / Stock-keeping Unit (SKU) / Universal Product Code (UPC) / Global Trade Item Number (GTIN)	✓	✓	✓	✓	✓	✓	✓
	Linking KDE (batch, lot or serial number)	✓	✓	✓	✓	✓	✓	✓
	Weight or Quantity	✓	✓	✓	✓	✓	✓	✓
	Unit of Measure	✓	✓	✓	✓	✓	✓	✓

Source: Adapted from the GDST Core Normative Standards V1.2, 2023

The GDST is technology-agnostic, and allows companies to exchange data across a range of different business systems and technologies. The standard requires paper records – such as captains' logs detailing fish catch – to be digitised so that all data is available to different supply chain actors.

Traceability and certifications

Some seafood sustainability certifications, for example those offered by the Marine Stewardship Council (MSC) and the Aquaculture Stewardship Council (ASC), address traceability to a degree, using a Chain of Custody (CoC) approach. While these certifications are critically important market tools, there are several important differences between the GDST standards and CoC certification.[32]

- The GDST standards are **explicitly about traceability**, whereas CoC certifications are focused on sustainability more generally.
- The GDST is an open set of standards which companies are **free to adopt without verification or certification**, whereas the CoC is part of a certification to which companies can subscribe, and pay verification fees.
- The GDST defines a set of traceability **data** (KDEs) and for **each stage of the supply chain** (CTEs) that should be collected, whereas the CoC data is collected as part of the certification process and the related audits.
- The GDST standards **enable full-chain, digital, and interoperable traceability** that ensures data visibility to all parties, whereas the certified bodies have visibility of the relevant data, but the certified company does not.

In May 2024, the GDST and MSC issued a joint statement highlighting the synergies between the standards,[33] which may lead to further collaboration.

Case study: Integration of feed ingredients in aquaculture certifications

The new ASC Feed Standard extends the ASC Farm approach to aquaculture feed mills and sets requirements for feed ingredients. The standard is important because feed can account for up to 90% of the environmental and social impacts of aquaculture.[34] Unlike the GDST standards, it also covers traceability of terrestrial feed ingredients, such as soy and palm oil. The standard will become compulsory for ASC-certified farms by October 2025.[35]

2.3. Where we are on seafood traceability

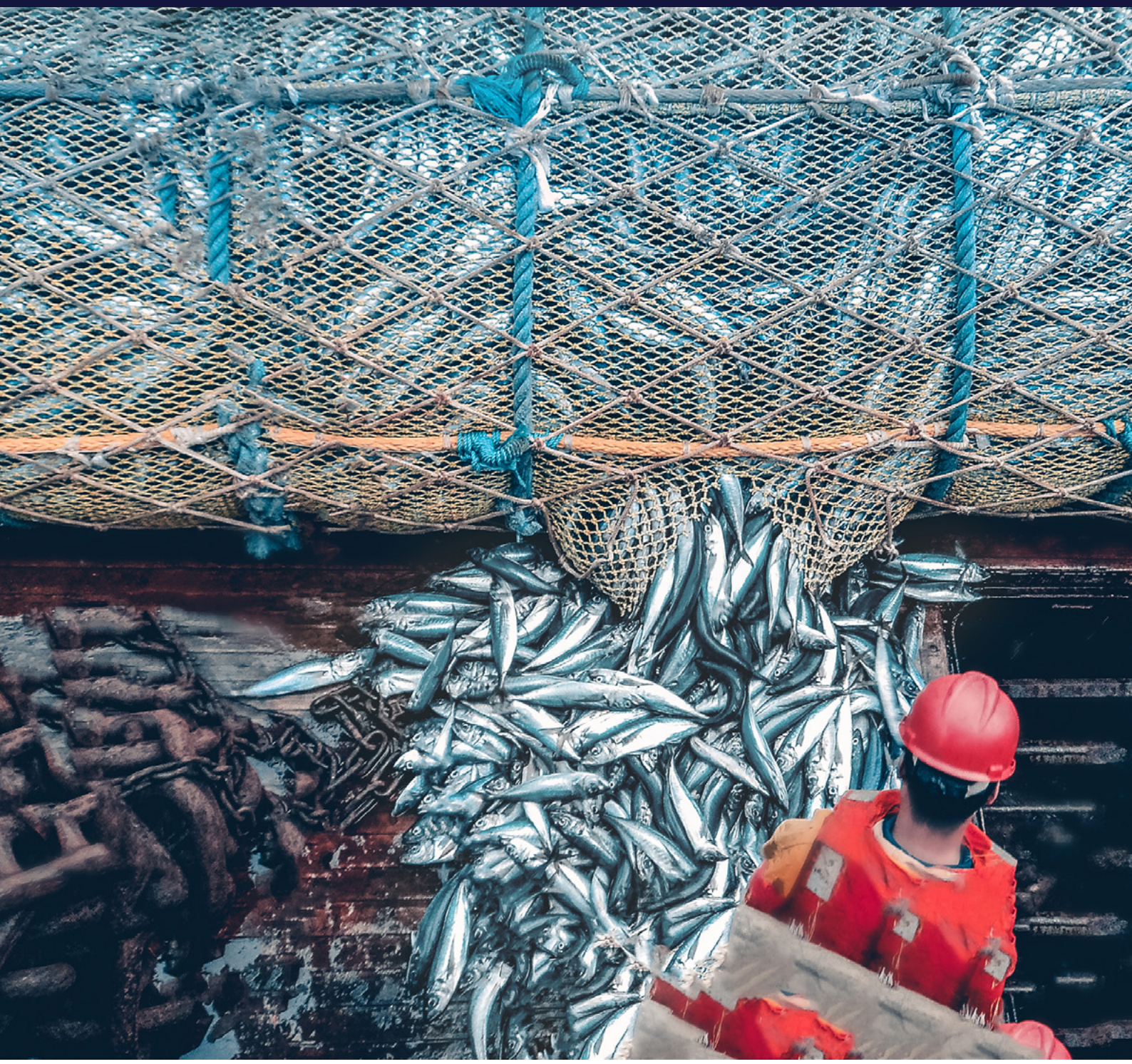
Traceability is particularly challenging for the seafood industry. A large proportion of seafood is traded internationally, and the industry is characterised by long and complex global supply chains. Raw materials may be processed onboard the vessel, or traded or transferred before being processed on land, often in a different country, before being further traded or transferred to the end consumer market. Many fish farming operations still rely heavily on wild-caught fish and fish oil as feed ingredients, as well as terrestrial feed ingredients which are also difficult to trace back to geographic origins.

The remote nature of operations further compounds the complexity of seafood supply chains. Unlike terrestrial sources of food production, which more or less rely on production facilities and farms with fixed geographic locations, wild-capture fisheries operate within a more dynamic geographic space. The seafood industry is also characterised by distant water fishing fleets operating in remote parts of the world, far from the coastlines of flag states which have responsibility over these vessels, frequently involving transnational trade and transportation, and implicating a number of different stakeholders and systems. These global market participants may use vastly different systems to collect and report data across their respective value chains.

All of these components make seafood traceability a starkly challenging proposition. Seafood traceability systems must navigate a complicated network of business partners with varying degrees of technological sophistication, missing data, and a lack of uniformity in data formats, and can therefore be costly to implement.

Nonetheless, there has been some notable progress towards traceability in the seafood industry:

- **The number of seafood companies with public traceability commitments is increasing**. According to the World Benchmarking Alliance's Seafood Stewardship Index (SSI), 50% of companies had public traceability commitments in 2021, up from 40% in 2019.[36]
- **Seafood companies largely recognise the importance of traceability, and many companies have endorsed the GDST standard since its publication in 2020**. Yet few companies have committed to a specific timeline for implementing GDST-aligned traceability systems, and the GDST does not set a deadline for implementation. Making commitments starting to disclose progress will be crucial to maintain investor confidence.
- **Many seafood companies use MSC or ASC CoC certifications**. It was estimated that 15% of global catch was MSC-certified in 2020, though not all seafood products are covered.[37]



Full traceability is a considerable undertaking, and will take time to implement. Standards such as the GDST provide companies with guidance on the data to capture, in which format, and at which point in the company's supply chain.

Whilst recognising that implementing full-chain, digital and interoperable traceability systems is a longer-term goal, **a key first step for companies is to undertake a data gap analysis** to understand which data the company already has, and what further data is needed to adhere to leading practice standards, such as the GDST. Companies might start with a specific species, geographical region, or part of their supply chains. Following this data gap exercise, companies will be in a better position to establish a time-bound target for stronger traceability, and define an action plan.

2.4. Key policies and regulations related to traceability

Many seafood companies are already subject to regulations and guidelines on traceability requirements – both directly and indirectly. This includes legislation in major seafood import markets (especially in the European Union), as well as guidelines from intergovernmental organisations and opt-in frameworks and standards administered by NGOs. Some mandate traceability requirements specifically, while others imply some degree of traceability as a prerequisite for compliance.

Table 2: Summary of key traceability regulations and frameworks

ARTICLE 35, EU 1379/2013 (COMMON MARKET ORGANISATION REGULATION)	**LEGAL REQUIREMENT | EU**
The common organisation of the markets for fisheries and aquaculture products requires the provision of basic information for the labelling of certain fishery and aquaculture food products.[38]	
ARTICLE 18, EU 178/2002 (FOOD SAFETY REGULATION)	**LEGAL REQUIREMENT | EU**
This outlines general traceability requirements for all food products (including seafood). It mandates traceability at production, processing, and distribution stages. It also requires food businesses to have systems to record information about who supplied them with any food product, and provide this information when required.[39]	
ARTICLE 58, EU 1224/2009, AMENDED BY EU (2023/2842) (CONTROL REGULATION)	**LEGAL REQUIREMENT | EU**
This focuses on the obligations related to the transmission of information of lots of fisheries and aquaculture products in the value chain. It requires operators to record and make available traceability information in a digital way to the next operator in the value chain, and covers all stages of production, processing and distribution, from catching or harvesting to retail stage.[40]	
ARTICLE 8, 10, 11 EU 2024/1760 (CORPORATE SUSTAINABILITY DUE DILIGENCE DIRECTIVE)	**LEGAL REQUIREMENT | EU**
This requires companies to map their operations in terms of environmental and human rights impacts, and take steps to address any issues identified.[41] Effective traceability systems establishing where exactly products come from will provide the necessary data and information to carry out a thorough mapping of these impacts. Conversely, not having traceability also prevents them from putting solutions in place to overcome the risks they identify or bring to an end risks that have already materialised.	
ARTICLE 19, EU 2013/34, AMENDED BY EU (2022/2464) (CORPORATE SUSTAINABILITY REPORTING DIRECTIVE)	**LEGAL REQUIREMENT | EU**
This requires in-scope companies to report information that is material from an environmental and financial perspective in their management reports. This includes the company's risks (both impacts and dependencies) in relation to adverse environmental and human rights impacts.[42] To effectively report, companies that have good traceability in place will be better equipped.	
DIRECTIVE 2005/29/EC (UNFAIR COMMERCIAL PRACTICES DIRECTIVE)	**LEGAL REQUIREMENT | EU**
Under this directive, companies may not mislead consumers with claims made about products. Therefore, traceability is required to some extent to be compliant.[43]	
EU GREEN CLAIMS DIRECTIVE	**PROPOSED LEGAL REQUIREMENT | EU**
This proposed directive would require companies to substantiate any voluntary environmental claims they make in communication with consumers.[44]	
SEAFOOD IMPORT MONITORING PROGRAM	**LEGAL REQUIREMENT | USA**
SIMP was implemented in 2018 and is managed by US Customs and National Oceanic and Atmospheric Administration (NOAA) Fisheries. The programme requires importers of certain seafood species to provide information on how and where the fish was caught/farmed, processed, and transported, including information on the name and flag state of fishing vessel(s) and area of wild-capture or aquaculture harvest.[45]	
FSMA FOOD TRACEABILITY FINAL RULE	**LEGAL REQUIREMENT | USA**
The FDA final rule on Requirements for Additional Traceability Records for Certain Foods (Food Traceability Final Rule) establishes traceability and record-keeping requirements, beyond those in existing regulations, for persons who manufacture, process, pack, or hold foods included on the Food Traceability List (FTL). This is a key component of the Food and Drug Administration (FDA) Food Safety Modernization Act (FSMA). At the core of this rule is a requirement that persons subject to the rule who manufacture, process, pack, or hold foods on the FTL, maintain records containing Key Data Elements (KDEs) associated with specific Critical Tracking Events (CTEs); and provide information to the FDA within 24 hours or within some reasonable time to which the FDA has agreed. This rule took effect in 2023, and companies covered have to comply by 20 January 2026.[46]	

Table 2: Summary of key traceability regulations and frameworks (continued)

FISHERY PRODUCTS DISTRIBUTION ACT	**LEGAL REQUIREMENT | JAPAN**
This legislation, which was introduced in December 2022, requires records on catches and transfers be submitted to the Japanese government to ensure traceability, in an effort to combat IUU fishing. Although it is not as comprehensive as the EU or US IUU measures, it is a significant piece of legislation, and may expand in scope over time.[47,48]	
ARTICLE 29, ENERGY AND CLIMATE LA	**LEGAL REQUIREMENT | FRANCE**
This legislation, adopted in 2021, requires financial institutions with more than €500 million in assets under management to disclose their process for assessing and managing climate and biodiversity risks, as well as a strategy for reducing biodiversity risks. Traceability will be needed to adhere to this legislation.[49]	
UN GUIDING PRINCIPLES ON BUSINESS AND HUMAN RIGHTS	**VOLUNTARY STANDARD | INTERNATIONAL**
Businesses are expected to conduct environmental and human rights due diligence throughout their supply chains.[50] Without traceability in place, a company is exposed the failure to adequately manage the impacts of its operations. These could be affecting the rights of people to a safe, clean, healthy, and sustainable environment; health; food; private and family life; cultural life; and indigenous rights.	
OECD GUIDELINES FOR MULTINATIONAL ENTERPRISES	**VOLUNTARY STANDARD | INTERNATIONAL**
Businesses operating in countries that adhere to the OECD Guidelines are expected to conduct risk-based due diligence to identify, prevent and mitigate the actual and potential adverse environmental and human rights impacts of their operations.[51] Therefore, traceability is required to some extent to conduct the necessary due diligence.	
GLOBAL REPORTING INITIATIVE (GRI) 13: STANDARDS FOR AGRICULTURE, AQUACULTURE, AND FISHING SECTORS	**VOLUNTARY STANDARD | INTERNATIONAL**
GRI 13 includes the topic of supply chain traceability (topic 13.23), which covers Illegal, Unreported, Unregulated (IUU) fishing. Organisations are recommended to report on their IUU assurance schemes and risk assessment, including traceability levels. When reporting on biodiversity (topic 13.3), fishing organisations should also report traceability data including the volume, method of catch, location of origin and stock status for each species caught.[52]	
TASKFORCE ON NATURE-RELATED FINANCIAL DISCLOSURES	**VOLUNTARY STANDARD | INTERNATIONAL**
The TNFD provides a framework for companies to assess and disclose impacts, dependencies, risks, and opportunities relating to natural capital and biodiversity. Traceability of supply chains, including seafood, will be essential to inform accurate application of the framework and link analyses results with a broader range of nature-related financial data.[53,54]	
SCIENCE BASED TARGETS NETWORK (SBTN)	**VOLUNTARY STANDARD | INTERNATIONAL**
SBTN is currently developing guidance for the seafood industry to set science-based targets in collaboration with WWF and Conservation International through its Ocean Hub. These targets are then set by companies to address their contributions to biodiversity loss in the ocean and reduce their nature-related business risks. Investors and other stakeholders can play an important role in encouraging and incentivising companies to set and demonstrate progress towards SBTN targets.[55]	
PAS 1550:2017	**NGO TOOL/BENCHMARK | INTERNATIONAL**
A voluntary code of practice developed by representatives from the seafood industry and environmental NGOs to mitigate the risks of IUU fishing. It has a strong emphasis on traceability, and provides guidelines for due diligence.[56]	
ESG FEED RISK ASSESSMENT TOOL	**NGO TOOL/BENCHMARK | INTERNATIONAL**
A tool developed by the Global Salmon Initiative and WWF to help companies map supply chains and assess and mitigate the environmental and social risks associated with feed ingredients. This tool aims to standardise requests made to feed suppliers.[57]	

Source: ClientEarth analysis, 2024

3. The Seafood Traceability engagement

3.1. An overview of the Seafood Traceability engagement

In 2023, FAIRR with the support from World Wildlife Fund (WWF-US), UNEP FI's Sustainable Blue Economy Finance Initiative, the World Benchmarking Alliance (WBA), and Planet Tracker launched the first-ever investor engagement initiative focused on encouraging major seafood companies to develop and implement robust and full-chain traceability systems as a means of identifying and addressing key environmental and social risks and unlocking sustainable opportunities in global seafood supply chains.

Specifically, seven publicly listed seafood companies were asked to:

- **Set time-bound commitments** to implement full-chain traceability systems covering all operations;
- **Demonstrate sufficient ambition** in the scope, depth and breadth of their traceability systems, in line with leading practice standards such as the GDST; and
- **Disclose how companies will deliver on their commitments**, including regular progress reporting.

Figure 6: Overview of the Seafood Traceability engagement

ENGAGEMENT

supported by

35 investors

representing **USD $6.5 trillion** in combined assets

US $116 billion

combined market capitalisation of seven publicly listed seafood companies

(as of 28 October 2024)

Note: Data retrieved from Bloomberg on 28 October 2024.

17 investors

participated in company dialogues

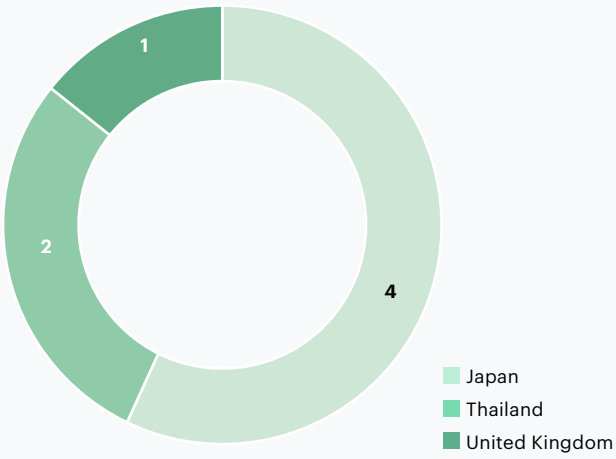
100%

of companies either sent a formal written response and/ or entered into a dialogue with investors and FAIRR in 2024

List of companies:

- Charoen Pokphand Foods Pcl
- Marubeni Corporation
- Maruha Nichiro Corporation
- Mitsubishi Corporation
- Nissui Corporation
- Nomad Foods Ltd
- Thai Union Pcl

Geographical breakdown of companies



Source: FAIRR 2024

Table 3: Summary of company engagement in 2024

	FORMAL LETTER SENT (FEB 2024)	FORMAL WRITTEN RESPONSE RECEIVED (MAR–APR 2024)	FAIRR AND INVESTOR DIALOGUES (MAY–SEPT 2024)
Charoen Pokphand Foods Pcl	✓	✓	✗
Marubeni Corporation	✓	✓	✓
Maruha Nichiro Corporation	✓	✓	✓
Mitsubishi Corporation	✓	✓	✓
Nissui Corporation	✓	✓	✓
Nomad Foods Ltd	✓	✗	✓
Thai Union Pcl	✓	✗	✓

Source: FAIRR 2024

3.2. Assessment framework

Companies were assessed across three broad pillars:

1. Their acknowledgement of environmental and social issues as material risks, and the existence of a traceability commitment,
2. The quality of their traceability commitment and associated implementation plan, and
3. The extent of their operational traceability system, and associated progress reporting.

Within each pillar, the assessment framework measured companies' performance against two specific Key Performance Indicators (KPIs). The company analyses in this report are based on publicly available information as of October 2024. All companies received their assessments for review and comment, prior to the publication of this report.

Table 4: Assessment framework

PILLAR 1:	TRACEABILITY COMMITMENT
KPI 1.1. Acknowledgement of material risks	The company publicly acknowledges the material risks posed by Illegal, Unreported and Unregulated (IUU) fishing, overfishing, habitat conversion and human rights issues, and the role of traceability in mitigating these risks.
KPI 1.2. Traceability commitment	The company has a public commitment at the group or subsidiary level to traceable seafood.
PILLAR 2:	**SCOPE AND IMPLEMENTATION PLAN**
KPI 2.1. Quality of the traceability commitment	The company has a time-bound commitment to digital and interoperable traceability, covering 100% of seafood / stock inputs / feed ingredients (marine and terrestrial),[i] traced back to the vessel / farm / feed source, and aligned with leading practice standards such as the Global Dialogue on Seafood Traceability (GDST). Where relevant, commitments cover terrestrial feed ingredients, e.g. using the ASC Feed Standard.
KPI 2.2. Implementation plan	There is an implementation plan in place, including key milestones, to achieve the company's traceability commitment.
PILLAR 3:	**MONITORING AND REPORTING PROGRESS**
KPI 3.1. Monitoring and reporting	The coverage of the currently operating traceability systems in terms of scope, depth, and breadth[ii] are monitored and reported publicly.
KPI 3.2. Third-party verification	The company's traceability systems are verified by a third party. Cases of non-compliance and actions taken to address these are reported.

Source: FAIRR 2024

[i] Recognising that implementation will take time and may involve a phased approach for some companies.

[ii] **Scope** refers to the number of product lines, or percentage of product portfolio, which is traceable (in this assessment, a company achieves a "leading practice" score is 100% of its products are traceable). **Depth** is about how far back or forward in the supply chain the system regularly traces the relevant information (in this assessment, a company achieves a "leading practice" practice score if products can be traced from the vessel/farm/feed source to the end customer). **Breadth** describes the amount and types of information collected (in this assessment, a company achieves a "leading practice" score the data it collects aligns with the GDST's universal list of Key Data Elements).

4. Key insights from the engagement

The table below reflects our overall ratings for each of the seven companies in the engagement against the six KPIs.

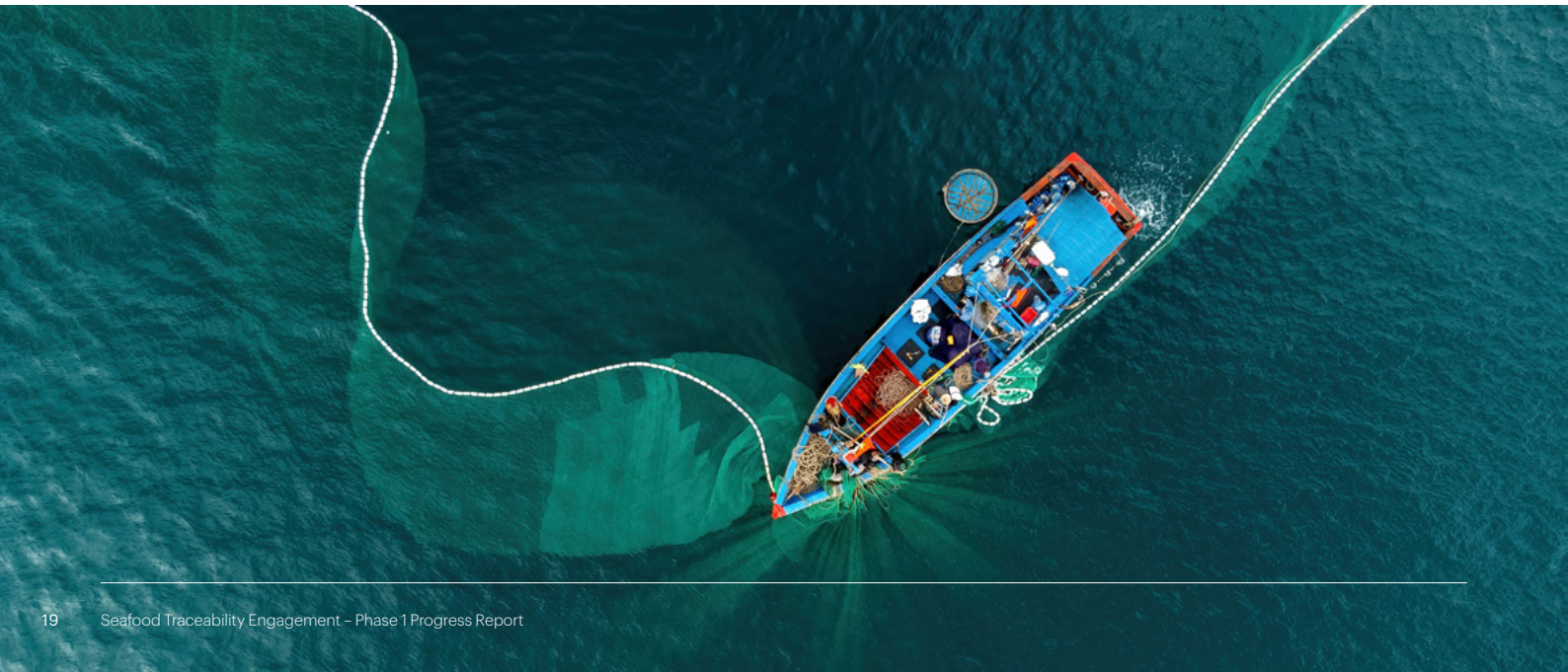
Table 5: Overview of companies' disclosures against the assessment framework

	1.1. Acknowledgement of material risks	1.2. Traceability commitment	2.1. Quality of the traceability commitment	2.2. Implementation plan	3.1. Monitoring and reporting	3.2. Third-party verification
Charoen Pokphand Foods Pcl	Partial disclosure	Leading practice	Limited disclosure	Limited disclosure	Partial disclosure	No disclosure
Marubeni Corporation	Partial disclosure	Limited disclosure	Limited disclosure	No disclosure	Limited disclosure	No disclosure
Maruha Nichiro Corporation	Partial disclosure	No disclosure	No disclosure	No disclosure	No disclosure	No disclosure
Mitsubishi Corporation	Partial disclosure	Limited disclosure	Partial disclosure	No disclosure	Limited disclosure	Limited disclosure
Nissui Corporation	Partial disclosure	No disclosure	No disclosure	No disclosure	No disclosure	No disclosure
Nomad Foods Ltd	Partial disclosure	No disclosure	No disclosure	No disclosure	No disclosure	No disclosure
Thai Union Pcl	Leading practice	Leading practice	Partial disclosure	Limited disclosure	Partial disclosure	Limited disclosure

Source: Companies' disclosures; FAIRR analysis 2024

Note: Detailed individual company assessments are available to download on the FAIRR website

The following sections summarise each company's position with respect to the six KPIs shown in Table 4. We also discuss broader issues identified during the engagement.



4.1. Acknowledgement of material risks

All companies in the engagement acknowledge that traceability is important in identifying and mitigating seafood supply chain risks – but most agree that they need to do more to improve the quality and coverage of their traceability systems. **Thai Union** in particular emphasised the importance of traceability, saying that it is the backbone of its sustainability strategy.[58]

The most common environmental and social issues, and associated commitments, include:

- **IUU fishing:** six of the seven companies disclose commitments to eliminate IUU fishing, though the quality of those commitments varies. **CP Foods** is the only company without a commitment to eliminate IUU fishing, although it acknowledges the risk of IUU. **Thai Union** has pledged that 100% of vessels from which it sources will implement best practices to prevent IUU fishing and modern-day slavery by 2030.[59] The company also has a target to have on-the-water monitoring (electronic or observer-based) on all tuna vessels by 2025, and reached 90% of this target as of 2023.[60] **Marubeni**, **Maruha Nichiro**, **Mitsubishi**, **Nissui** and **Nomad Foods** all reference IUU prevention in their supplier codes or procurement policies, but do not disclose any time-bound targets to achieve this.

Case studies from the wider seafood industry: Eliminating IUU

Nutreco uses the IUU Fishing Index to assess risks for each source country, maps countries with higher risk of forced labour, and has additional requirements for any ingredients sourced from high-risk countries.[61]

Royal Greenland assesses country risk for human rights, labour conditions and environmental protections and has additional requirements for suppliers from medium- and high-risk countries.[62,63]

- **Human rights risks:** five of the seven companies have published group-level human rights policies, with the remaining two – **Nomad Foods** and **Marubeni** – stating that such policies are in development. All seven companies acknowledge the importance of protecting basic labour rights (e.g. preventing forced and child labour) and most commit to ensure further rights, such as the right to fair wages and working hours and freedom of association. Four companies, **Mitsubishi**, **Marubeni**, **Thai Union** and **CP Foods** explicitly acknowledge the rights of the local communities and indigenous people.
- **Overfishing:** two companies – **Nissui** and **Maruha Nichiro** – disclose targets to conduct regular resource management surveys (every two to three years) to assess the sustainability of their seafood procurement processes. Two other companies – **Nomad Foods** and **Thai Union** – have set targets to ensure 100% sustainable sourcing, through certifications or Fisheries Improvement Programmes (FIPs).
- **Supplier conduct:** all seven companies disclose supplier guidelines for environmental and social issues. Compliance is generally enforced through self-assessment questionnaires, with high-risk suppliers sometimes being subjected to third-party audits. However, during investor calls, two companies acknowledged that these measures have been insufficient to identify and mitigate risks such as IUU and human rights issues – further highlighting the need for full-chain, digital and interoperable traceability.
- **Risk assessment protocols:** these vary by company, product, region, and issue, though there are several relevant laws to which companies must adhere (see Section 2.4). Beyond this, there are some common frameworks to which multiple companies adhere, promoting the sharing of comparable data across the industry, incentivising companies to make real improvements.

Case study: the TNFD as a common framework

The Taskforce on Nature-related Financial Disclosures (TNFD) provides guidelines for reporting nature dependencies, impacts, risks and opportunities. **Maruha Nichiro**, **Mitsubishi**, **Nissui**, and Charoen Pokphand Group (the parent company of **CP Foods**) have each recently published TNFD disclosures. While this is positive progress, the first year of TNFD reporting is often not comprehensive, and many of these assessments do not cover the whole business, all supply chains and/or all 14 TNFD recommendations. Whilst **Marubeni** stated its intention to publish disclosures in the 2025 financial year, **Thai Union** and **Nomad Foods** have given no indication of their intent to disclose information according to the TNFD framework.

4.2. Traceability commitments

Table 6: Summary of companies' traceability commitments

Company	Traceability commitment at the group or subsidiary level	Target year	Target scope (geographic + species)	Detailed information
CP Foods	Group level	**Food Traceability Policy:** no target year. **Key raw materials traceability commitment:** 2030	**Food Traceability Policy** covers all seafood and feed ingredients (though these are not specifically mentioned in the Food Traceability Policy) **Key raw materials traceability commitmen**t covers fishmeal, soy, palm-oil, maize and cassava for the company's feed and food business in certain locations only.	The Food Traceability Policy does not explicitly mention seafood and aquaculture feed ingredients. CP Foods' most recent sustainability report (2023) only mentions the company's key raw material traceability commitment.
Marubeni	Subsidiary/ Associate level (Eastern Fish, Danish Salmon)	No target year	Unknown - Marubeni does not disclose a breakdown of its seafood revenues by subsidiary/ associate, it is therefore not possible to know whether these traceability commitments account for materially all the seafood produced by Marubeni.	Eastern Fish (subsidiary) states that all products are fully traceable and Danish Salmon (minority owned) has a commitment to traceable seafood and feed – though neither company gives further information on how traceability is achieved.
Maruha Nichiro	No traceability commitment at the group level despite the whole group focusing only on seafood			
Mitsubishi	Group and subsidiary level (Toyo Reizo Co., Cermaq)	No target year	Tuna for both group-level and Toyo Reizo Co. commitments, salmon and trout feed suppliers for Cermaq commitment. However, Mitsubishi does not disclose a breakdown of its seafood revenues by subsidiary/ species, it is therefore not possible to know whether these traceability commitments account for materially all the seafood produced by Mitsubishi.	Mitsubishi has a group-level commitment to traceable bluefin tuna. Toyo Reizo Co. commits to collect traceability data in line with the GDST's list of KDEs, but this is only for tuna. Cermaq requires its salmon and trout feed suppliers to have traceability systems in place, but makes no commitment to traceability in its own operations.
Nissui	No traceability commitment at the group level despite the whole group focusing only on seafood			
Nomad Foods	No traceability commitment - Nomad Foods only has a commitment to source 100% of its seafood from sustainable fishing or responsible farming by 2025, by sourcing certified seafood. However, certifications do not amount to having full-chain, digital and interoperable traceability. Furthermore, this target excludes the company's business located in the Adriatic region acquired in 2021.			
Thai Union	Group level	**SeaChange 2030 Strategy:** 2030 **Tuna Commitment:** 2025	**SeaChange 2030 Strategy:** All seafood and feed ingredients. **Tuna Commitment:** Core commercial species of tuna – albacore, bigeye, skipjack, yellowfin	Thai Union's SeaChange 2030 Strategy includes a general traceability commitment that covers all seafood and feed ingredients. In its latest Sustainability Report, the company only reports on progress towards the 2030 target regarding traceability for farmed shrimp; and the 2025 target for traceability for tuna.

Source: Companies' disclosures; FAIRR analysis, 2024

While all of the companies recognise the value proposition of robust traceability, only four currently have public traceability commitments. Such commitments are crucial accountability mechanisms for companies to make and measure progress.

Thai Union and **CP Foods** have the strongest traceability commitments, which cover all of their seafood, including wild-caught fisheries and aquaculture operations. **Thai Union** explicitly states that its traceability commitment includes marine and terrestrial feed ingredients.

Mitsubishi and **Marubeni** both have traceability commitments that cover a subset of species or subsidiaries. **Mitsubishi** has a group-level traceability commitment for tuna, as well as a commitment at the subsidiary level (for **Toyo Reizo Co.**), also for tuna. Another **Mitsubishi** subsidiary **Cermaq** requires its salmon and trout feed suppliers to have traceability systems in place, but makes no commitment to traceability in its own operations. **Danish Salmon** (in which **Marubeni** has a minority share) has a commitment to traceable seafood and feed ingredients, while **Marubeni**'s subsidiary **Eastern Fish** states that its feed is fully traceable – though no further information is given.

Nomad Foods discusses traceability being an important part of its auditing process, and conducting hundreds of traceability exercises each year – but discloses no commitment to procuring traceable seafood and feed ingredients. **Nissui** and **Maruha Nichiro** also do not disclose any traceability commitments.

4.3. Quality of companies' traceability commitments

Progress towards full-chain, digital and interoperable traceability will be iterative. It is, however, important that traceability commitments are specific, measurable and time-bound. Partial or vague traceability commitments are difficult to translate into tangible progress – if the scope of a commitment is not defined, or if the commitment has no deadline, the company cannot be held accountable for its implementation. While four companies disclose public traceability commitments, the quality of these commitments vary substantially.

Thai Union's commitment covers all seafood and feed ingredients, but only has time-bound targets to achieve GDST-aligned and interoperable traceability for tuna and farmed shrimp.[64] **Mitsubishi**'s subsidiary **Toyo Reizo Co.** also commits to collect traceability data in line with the GDST's list of KDEs, but this is only for tuna.

Traceability commitments should also cover both terrestrial and marine feed ingredients for farmed fish. While the GDST standards do not cover terrestrial feed ingredients, it is important to ensure that their production is also free from environmental and social risks, such as deforestation and land conversion, and labour rights violations. **Thai Union** discloses that one of its feed mills has now achieved the ASC Feed Standard certification that addresses these issues for terrestrial ingredients, requiring traceability if ingredients originate from higher-risk areas. Other engagement companies also commit to deforestation- and conversion-free feed ingredients: for instance, **CP Foods** has a target to achieve this by 2025. The company also has a target for key raw materials (fishmeal, soy, palm oil, maize and cassava) to be traceable to plantation or fishery by 2030.[66,iii]

4.4. Implementing traceability commitments

None of the companies discloses detailed plans or key milestones for achieving traceability commitments. Only two companies have "limited disclosure" ratings on this KPI.

Thai Union's SeaChange 2030 Strategy outlines the company's traceability commitments but does not disclose any key milestones ahead of 2030.[66] The overall strategy is supported by a US $200 million budget, though the company does not disclose how this relates to its traceability efforts. In its Tuna Commitment 2025, Thai Union states that it will develop interim milestones and targets covering the years 2020-2025, but none covering traceability has been disclosed as of October 2024. This lack of disclosure about implementation progress, in contrast to very public commitments, has drawn public criticism.[67]

CP Foods has a time-bound traceability commitment for key raw materials of its feed and food businesses in certain countries, and the company describes the implementation of this commitment in its annual sustainability report.[68]

"Investors play a key role in highlighting the need for seafood companies to have stronger traceability systems. Through our engagement dialogues, companies seem aware of the need for better traceability, but awareness alone is not sufficient: we would welcome proactive plans towards better traceability and its disclosure, including the progress."

– **Dai Yamawaki**, Senior Portfolio Manager, Nomura Asset Management

iii This target only covers the Feed Business in Thailand, Cambodia, Philippines, Malaysia, Laos, Vietnam, and India and the Food Business in Thailand and Vietnam.

4.5. Monitoring and reporting

It is essential that companies monitor the implementation of their traceability commitments and report progress to ensure that traceability efforts remain on track, changes are effectively communicated to the public, and others in the industry are encouraged to follow suit.

The two companies with group-level traceability commitments – **Thai Union** and **CP Foods** – are also the only two which regularly report on their progress towards traceability goals. **Thai Union** reports annually on progress towards its target to achieve GDST-aligned traceability for tuna (by 2025) and farmed shrimp (by 2030).[69] **CP Foods** also reports annually on progress towards its targets.[70]

While most companies are likely to adopt this kind of phased approach to implementing traceability, it would be helpful to investors if companies disclosed their reasoning for choosing to prioritise certain species, parts of the business or stages along the supply chain.

As noted above, **Marubeni** and **Mitsubishi** also have traceability commitments at the seafood subsidiary level. However, these are not time-bound, and the companies do not report annually on progress. While it is positive that these companies have limited traceability commitments, more information is needed on the scope, depth and breadth of these commitments, as well as progress made towards implementing them.

Positive practice example: Supply chain verification

Pacifical offers supply chain traceability and verification for Pacific tuna. Its SmarTuna platform produces fully GDST-aligned digital and interoperable data. Independent observers on board of each vessel provide additional assurance over accurate data collection and monitor and verify compliance with Pacifical criteria covering no IUU catch, no by-catch of certain species (sharks, dolphins, whales, turtles), no illegal transshipment and no child or forced labour.[71,72]

4.6 Third-party verification

Third-party assurance for operational traceability systems still appears to be an emerging practice amongst the seafood companies part of this engagement.

Two companies – **Thai Union** and **Mitsubishi** - are taking limited action, with the former having instructed a third-party consultant to verify yearly the targets set as part of the Tuna Commitment 2025, including achieving GDST-aligned traceability.[73] **Mitsubishi**'s subsidiary **Cermaq** requires its feed suppliers to have an ingredient traceability system in place that has been "audited and certified by a third party", and for **Cermaq** to be able to audit the system upon request.[74] The remaining five companies did not disclose any third-party verification of traceability systems.

4.7. Broader issues

Beyond the assessment framework, we note some key learnings from the engagement.

Prominence of certifications

The role of certifications is prominent in companies' strategies on seafood traceability, and there is a clear ambition among seafood companies to increase their use. In their public disclosures, companies mention various certifications, with ASC and MSC being the most frequently referenced. While this is a positive trend, companies and investors must be careful not to confuse the Chain of Custody assurance provided by certifications with full-chain, digital and interoperable traceability.

Even so, only one of the seven companies, **Nomad Foods**, has set a time-bound target to achieve full certification for all the seafood it procures by 2025. In 2024, the company reports that it has achieved a 99.5% certification rate, although this does not include operations in the Adriatic region, a business it acquired in 2021.

Case study: MEL and ASC Feed Standard

All of the Japanese engagement companies are also members of the **Japanese Marine Eco-Label (MEL)**, but did not disclose certification rates. The Japan Fish Feed Association, which consists of 12 Japanese feed manufacturers, expressed concerns about meeting the ASC Feed Standard traceability requirements for by-catch, and have joined the MEL certification instead. While MEL is also developing its own standards for fish meal, fish oil, and compound feed, the traceability requirements for marine and terrestrial feed ingredients have not yet been disclosed.[75]

Otherwise, the companies part of this engagement disclose their certification efforts to varying extents. Several companies disclose certification rates targeted or achieved, but these are often limited to certain species, subsidiaries, production methods, or geographical areas. This makes it impossible for investors to assess the overall share of these businesses that is covered by those initiatives, or meaningfully compare between companies.

SeaBOS and GDST membership

Given the inherently collaborative nature of traceability, membership in relevant industry groups and/or adherence to industry-wide standards, such as **Seafood Business for Ocean Stewardship (SeaBOS)** and the **GDST standard**, is an important step.

SeaBOS members in the engagement include **CP Foods**, **Maruha Nichiro**, **Nissui**, **Thai Union**, and **Cermaq** (a subsidiary of **Mitsubishi**). SeaBOS asks members to confirm they do not have exposure to IUU fishing or modern slavery in their own operations, and to "put science-based measures in place" to reduce these risks in their supply chains.[76]

The **GDST standard** has been adopted by one company at the group level – **Thai Union** (for tuna and farmed shrimp) – and by one company at the subsidiary level (**Mitsubishi**'s **Toyo Reizo Co.** is committed to collecting data in line with the universal list of KDEs for tuna). Thai Union now collects all of the required KDEs data for tuna, but has not yet achieved digitalisation and interoperability. Toyo Reizo Co. has not reported progress towards its commitment, despite a target deadline of 2023.

The remaining companies do not have commitments aligned with the GDST standards, though some companies noted during investor calls that they are considering making such commitments.

Positive practice example: GDST alignment

Nueva Pescanova has a target for 100% of its products from fishing and aquaculture to be GDST-aligned by 2025. The company reported it had achieved 37% in 2023, so has made some progress towards this goal. The company has set further goals to extend GDST-aligned traceability to all aquaculture feed by 2030, as well as being 100% deforestation- and habitat conversion-free (DCF) by 2030.[77]

As of 2023, SeaBOS members were reporting disparate approaches to tackling IUU[78] Widespread adoption of the GDST standard could address this by giving seafood companies full visibility of their supply chain through full-chain, digital, and interoperable traceability.

One engagement company noted that SeaBOS would be well-positioned to facilitate the sector cooperation necessary to achieve interoperable traceability. Indeed, SeaBOS issued a statement in 2021 endorsing the GDST standard and stating that its members would share leading practice on GDST implementation.[79]

5. Conclusion and next steps

Full-chain, digital and interoperable traceability is essential to meaningfully assess environmental and social risks, to meet increasing disclosure requirements from voluntary and mandatory frameworks, and to take action to manage and mitigate impacts and dependencies in the seafood sector. Robust traceability could also unlock opportunities for seafood companies, enabling them to validate sustainability claims, satisfy the growing demand for sustainable seafood, increase operational efficiency, ensure regulatory compliance and, for downstream actors in particular, meet increasing stakeholder expectations for full supply chain traceability.

5.1. Key challenges and solutions to implementing stronger traceability

The seafood industry is in the early part of a long and complex traceability journey. Many parts of the industry are only beginning to appreciate what it means to achieve full-chain, digital, interoperable traceability.

Full traceability requires large-scale cooperation and data transfer between supply chain partners across companies and countries – but this is hindered by national variations in the way that data is recorded and transferred. Adopting universal standards such as the GDST can help ensure that traceability data is interoperable, and accessible to all actors along the supply chain.

Aquaculture feed traceability appears to be a challenge of its own. For example, Thai Union acknowledges that feed accounts for a significant portion of the environmental footprint of its farmed fish and seafood, and discloses a target to have 100% of its shrimp feed "responsibly sourced".[80] However, as of 2024, the company did not yet disclose any progress towards this target.[81] While the ASC Feed Standard seeks to improve the traceability of aquaculture feed, some feed producers, especially in Japan, have expressed concerns about the cost of making all feed fully traceable.[82]

Smaller businesses may find traceability especially challenging, given the resources required to train staff, upgrade systems, digitise data, and implement such traceability systems. That being said, larger businesses have more complex supply chains, and therefore face traceability challenges of a different nature. One company in the engagement discussed that full traceability was challenging due to it being a wholesaler – but that the company is working with first-tier suppliers to manage traceability risks.

5.2. First steps for seafood companies

The dialogues between investors and companies part of this engagement highlighted a few **key first steps that seafood companies, both large and small, can take towards achieving better traceability**:

1. **Conduct a traceability data audit and gap analysis** to identify data that is already available, as well as missing data according to the GDST's universal list of KDEs.
2. **Map the organisation's supply chains** to identify the products and areas where traceability is already established, and those areas where there may be risks.
3. **Assess the organisation's approach to traceability** and **how it communicates** existing initiatives with suppliers, customers, shareholders, and other stakeholders.
4. **Update or establish time-bound, full-chain, digital and interoperable traceability commitments**, and regularly **report progress** towards these targets.

Positive practice example: Wider seafood industry

Lerøy Seafood discloses that all of its feed ingredients are traceable to the fishery, farm, or geographical area in compliance with the ASC Feed Standard. However, it is not clear if its traceability systems are interoperable, so they may not align with GDST standards.[83]

WWF and the **Global Salmon Initiative (GSI)** have co-created and launched a first-of-its-kind ESG Feed Ingredient Risk Tool to drive accountability in feed supply chains to reduce habitat degradation, GHG emissions, overfishing and human rights abuses, among others.[84] Currently, all 14 GSI member companies are piloting the use of this tool within their supply chains, accounting for 40% of global farmed salmon. The tool aims to allow supply chain actors to collectively identify material risks in their feed supply chain to then make more informed decisions to mitigate those risks.

5.3. Investor involvement in supporting seafood traceability

Investor awareness of the important role that traceability plays is itself an important first step. Building on the momentum achieved in 2024, the organisations supporting this engagement encourage investors to:

1. **Formalise expectations related to supply chain traceability into actionable policies**, and specify such expectations for seafood portfolio companies.
2. **Develop and set time-bound targets** for portfolio companies to implement traceability of high-risk commodities, particularly seafood, and **disclose progress** against those targets as part of high-level nature and human rights goals.
3. **Take part in Phase 2 of the Seafood Traceability engagement** launching early 2025. Alternatively, explore capacity-building opportunities with any of the partner organisations to **deepen engagement with seafood portfolio companies** outside the scope of this programme
4. **Encourage greater industry collaboration on traceability** through organisations such as SeaBOS, the GDST, and the UNEP FI Sustainable Blue Economy Finance Initiative.

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The FAIRR Initiative

Established by the Jeremy Coller Foundation, the FAIRR Initiative is a collaborative investor network that raises awareness of the material ESG risks and opportunities caused by intensive animal production. FAIRR helps investors to identify and prioritise these factors through cutting-edge research that investors can then integrate into their investment decision-making and active stewardship processes. FAIRR also runs collaborative investor engagements with global food companies to improve performance on selected ESG issues in intensive animal production.

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