



# ADDRESSING SEAFOOD SECTOR RISK IN FINANCIAL MARKETS



Photo: © HoangNhiem

**SEAFOOD IS ONE OF THE  
MOST HIGHLY TRADED AND  
IMPORTANT FOOD  
COMMODITIES IN THE WORLD...**



**USD 406 billion**

in annual value was produced globally in 2020, with exports valued at USD 150.5B. <sup>1</sup>



**3 billion**

people rely on seafood as a significant source of animal protein. <sup>1</sup>



**60 million**

people are employed in the seafood sector worldwide. <sup>2</sup>

<sup>1</sup>. FAO. SOFIA (2022); <sup>2</sup>. WWF (2019)

# And the world's appetite for fish and fish products shows **no signs of slowing**

1990

**+14%**

Capture fisheries  
production<sup>1</sup>

**+527%**

Aquaculture  
production<sup>1</sup>

**+122%**

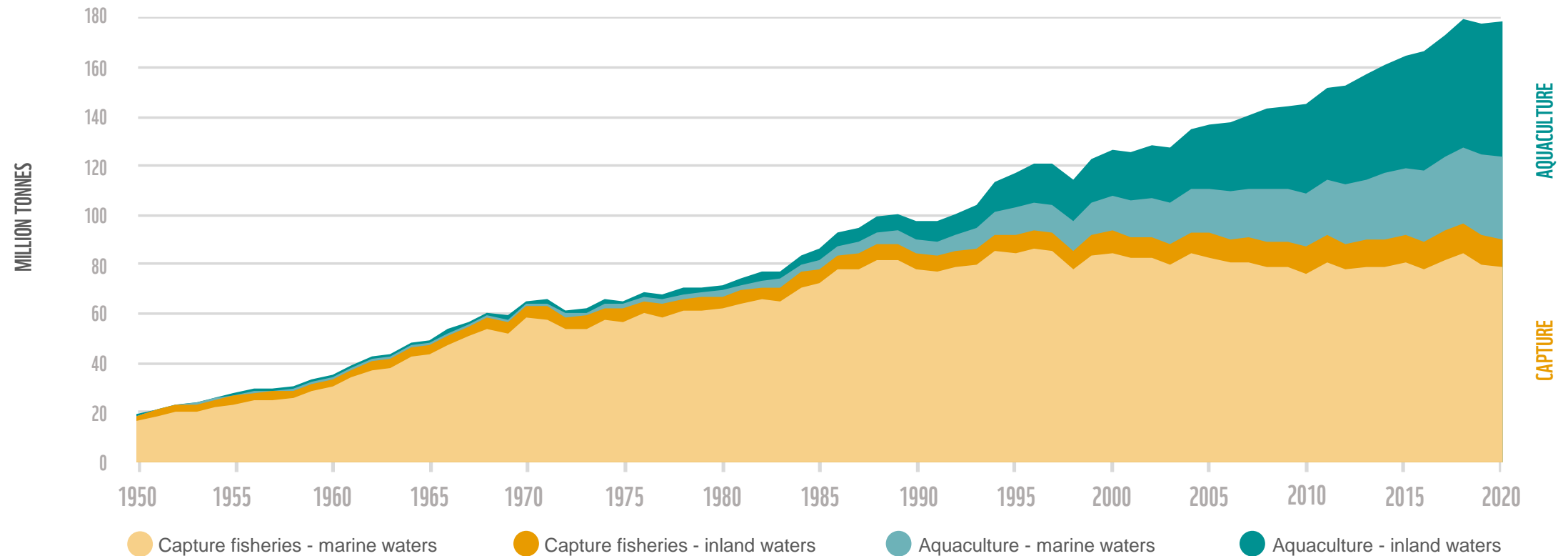
Total seafood for  
human consumption<sup>1</sup>

2018

1. FAO. SOFIA (2020)

Capture fisheries production has leveled off since the 1990s and aquaculture production has grown rapidly to meet demand.

World Capture Fisheries and Aquaculture Production

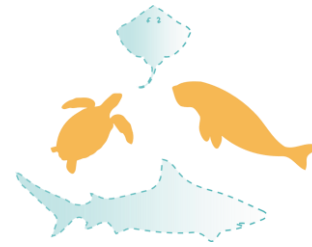


HOWEVER, THERE IS GROWING EVIDENCE THAT BUSINESS-AS-USUAL SEAFOOD PRODUCTION, DISTRIBUTION AND SALES IS **CREATING SIGNIFICANT ENVIRONMENTAL AND SOCIAL (E&S) IMPACT.**



Photo: © Brian J. Skerry / National Geographic Stock / WWF

**THESE IMPACTS FALL INTO  
THE FOLLOWING KEY AREAS:**



**NATURE &  
BIODIVERSITY LOSS**

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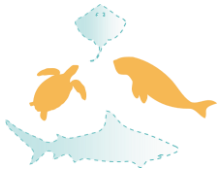


**CLIMATE CHANGE**

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**ILLEGALITY & HUMAN  
RIGHTS ABUSES**



# NATURE & BIODIVERSITY LOSS

- 1 More than 90% of all fish stocks are either fully exploited or overexploited.<sup>1</sup>
- 2 'Bycatch' of non-target species accounts for 10% of all global marine fisheries catch and is a serious threat to endangered & protected species.<sup>2</sup>
- 3 55% of the world's coral reefs are negatively impacted by overfishing.<sup>3</sup>
- 4 50% of the world's mangroves have been lost since 1940 - in many areas driven by rapid expansion of shrimp farming and other aquaculture.<sup>4</sup>

1. WWF (2019); 2. Davies et al. (2009); 3. Coral Reef Alliance (2022); 4. FAO (2003)







# CLIMATE CHANGE

- 1 90% of global temperature increase between 1971-2010 was absorbed by the ocean, but CO<sub>2</sub> absorption is causing acidification and O<sub>2</sub> loss, impacting seafood productivity. <sup>1</sup>
- 2 Climate change is affecting the geographic distribution and composition of fisheries worldwide: 36-81% of fish stocks will shift across borders under potential climate change scenarios, and 41-91% of stocks will see their maximum sustainable yield decline. <sup>2</sup>
- 3 Rapid growth in aquaculture has increased land-use change, further exacerbating climate change: the use of terrestrial ingredients in feed linked to deforestation; and the clearing of mangroves and other wetland habitat by shrimp and other pond aquaculture. <sup>3</sup>

1. IPCC (2019) 2. (Gaines et al. 2018) ; 3.WWF (2019)





# ILLEGALITY & HUMAN RIGHTS ABUSES

- 1 The global fishing industry has a documented history of high risk of forced labor, human trafficking, and unsafe working conditions.<sup>1</sup>
- 2 There are strong links between human rights abuses and Illegal, unreported, and unregulated (IUU) fishing – which accounts for between 20-30% of all catch globally.<sup>2</sup>
- 3 IUU fishing has also been linked to other crimes, including money laundering, corruption, fraud, and trafficking in drugs and arms.<sup>3</sup>
- 4 IUU fishing persists due to economic incentives that make it a high-reward, low-risk activity, a lack of monitoring and enforcement, and a lack of traceability and transparency in global supply chains.<sup>4</sup>

1. ILO (2013); 2. WWF (2019) and BREST Ocean Commitments (2022); 3. INTERPOL (2020); 4. High-level Panel for a Sustainable Ocean Economy (2022)



# These negative impacts create material financial risks to companies and their financiers...

1

## PHYSICAL RISKS

Fishing and aquaculture operations and physical assets are exposed to ocean-related climate risks such as extreme weather, rising sea levels, salination and coastal erosion. Illegal or irresponsible fishing also puts physical assets at risk.

2

## 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 fluctuations, short-term profits and financial instability.

3

## REPUTATIONAL RISKS

Opaque supply chains can hide labor and human rights concerns and illegally harvested seafood, thus presenting legal and reputational risks to companies and their financiers.

4

## MARKET RISKS

End markets for seafood are changing in response to heightened consumer awareness of environmental and social issues in the seafood sector and companies not responding risk being left out .

5

## REGULATORY RISKS

Governments in key seafood consuming markets are responding to growing concern over issues in the seafood sector such as illegality and labour and human rights abuses.

# PHYSICAL RISKS

## Unsustainable and unsafe practices can put physical assets at risk

- Loss of mangroves and wetlands can lead to increased risk from flooding and storm surges to local aquaculture farms and businesses.
- As aquaculture operations are often family-run small businesses in emerging economies, they don't have financial resilience or insurance to smooth the costs of disruption or re-building.
- In Vietnam, shrimp production was impacted by a typhoon in 2017 where nearly 74,000 aquaculture ponds were damaged leading to VND 22,679bn in economic losses (~1 bn USD)<sup>1</sup>
- Illegal or unregulated fishing can mean fishing in more dangerous conditions putting both human and physical assets at risk

## Ocean-related climate impacts can cause loss or damage of physical assets in seafood

- Aquaculture and fishing operations are often exposed to extreme weather events, caused by increasing climate change, as they are often located in high-risk countries and regions. Low economic resilience and lack of access to risk finance means losses can be significant.
- In 2019, Hurricane Dorian devastated the Bahamas \$75 million lobster industry, where an estimated 95 percent of fishermen in the northern islands lost their vessels to the storm.<sup>2</sup>

### TAKEAWAY FOR FIS

Climate change, and unsustainable and irresponsible fishing and aquaculture practices can put physical assets at risk. Often assets are uninsured which affects the ability to continue to harvest, generate income, pay for the cost of capital or generate employment.

# OPERATIONAL RISK

## Over-exploitation of natural resources can impact supply chains, margins and profitability.

- Between 2007-2017, US import volume of Blue Swimming Crab from Southeast Asia decreased by 13% (6m lbs.), due in large part to over-fishing and poor fishery management practices.
- This caused a squeeze on mature crab supplies, leading to the price of Claw-Jumbo increasing by 23% over the 10-year period, jumping from \$14.25/lb. in 2007 to \$17.59/lb. in 2017.
- This led most small and medium sized importers to lose all of their margin, while larger firms lost ~32-47% of their margin.<sup>1</sup>

## Disease outbreaks in aquaculture decimate harvests

- Some estimates suggest that disease outbreak in shrimp farming in many cases caused by unsustainable and irresponsible production practices, has cost the industry more than \$US 20B over the past decade.
- In Thailand, the Early Mortality Syndrome (EMS) disease caused shrimp production to fall by about 40% between 2011 and 2016, equaling \$5B losses.<sup>1</sup>

## Feed source volatility poses risk to shrimp farmers

- The majority of feed is sourced from wild capture fisheries.
- Huge growth in aquaculture has increased competition for feed, while over-exploitation has caused declines in volumes, exacerbated by increased environmental variability (El Nino).
- All of this has led to significant price hikes and since feed can represent as much as 40-70% of aquaculture production costs, such price volatility poses enormous operational risks to farmers.<sup>1</sup>

### TAKEAWAY FOR FIS

Over-exploitation and inadequate management of natural resources generates cost increases which can be passed through supply chains with severe adverse effects on the profitability of companies that rely on these resources. This can expose financiers to a variety of risks, including (but not limited to) credit risk and market risk, as their clients struggle to hit revenue targets.

# REPUTATIONAL RISKS

## Forced Labor & Human Rights Abuses

- Forced labor or Child labor has been documented in seafood supply chains in **47** countries across **5** continents.<sup>1</sup>
- **In 2015**, Costco was sued by consumers in California who accused them of selling shrimp produced with slave labor. In 2017 the lawsuit was dismissed.<sup>2</sup>
- **In 2022**, Bumble Bee Seafood and its owner, Taiwan-based FCF Co., were named in a new lawsuit alleging unfair and dangerous labor practices in their commercial fishing operations and supply chains.<sup>3</sup>

## IUU Fishing

- IUU - which accounts for **20-30%** of all catch (a value of between US \$10-23.5B annually) - is sometimes linked to drugs and human trafficking.<sup>4</sup>
- **In 2012**, multiple fishing vessel owners and seafood processing companies in the UK were involved in an illegal scheme to breach European fishing quotas, leading to over GBP 1M in fines.<sup>5</sup>
- **In 2018**, 10 companies operating illegally in Ghanaian waters were fined US \$3.1M.<sup>5</sup>
- **In 2014**, Pacific Andes was fined \$US 800K for illegal transshipment activities.<sup>5</sup>

## Seafood Fraud & Mislabeling

- A recent analysis by *The Guardian* of 44 studies involving 9,000 seafood samples from restaurants, fish markets, grocery stores across 30 countries found that **36%** were mislabeled.<sup>6</sup>
- Studies in the US found that products like red snapper and tuna have mislabeling rates as high as **87%** and **59%**, respectively.<sup>7</sup>
- These practices can expose companies selling mislabeled products to reputational risks around health, food safety, and legality.

## TAKEAWAY FOR FIs

Opaque supply chains can hide slave labor and illegally harvested fish, thus presenting reputational risks with legal and financial ramifications to companies. This can expose FIs to a variety of risks, including (but not limited to) credit risk and market risk, as well as broader reputational risks of their own.

# MARKET RISKS

## Trends in Global Demand for Sustainable Seafood

- Continued access to end markets is a growing risk for seafood providers. As with other food sectors, convenience, health, transparency and sustainability are the main trends shaping global consumption.
- A global survey of 20,000 consumers across 23 countries found that 6 in 10 shoppers (58%) have already made changes to the way they select and buy seafood, due to concerns about overall ocean health.<sup>1</sup>
- Sales of certified sustainable seafood grew 10x faster than conventional seafood sales during 2006-2016 (from 500k to 23m metric tons), driven almost entirely by end-buyer commitments to sustainable sourcing.<sup>2</sup>
- In North America, >90% of retailers by market share and >30% of food service companies have made sustainable seafood commitments.<sup>3</sup>

## Risks and Missed Opportunities

- Companies that fail to provide responsible, traceable seafood are in danger of falling behind their competitors and losing access to markets.
- Companies can also miss out on increased revenue opportunities. In 2020, Walmart announced that stores with more sustainable offerings and better consumer education had seen a 25% increase in seafood sales.<sup>4</sup>
- A recent study found that seafood processors who invest in traceability systems could double their EBIT margin while reducing risk exposure.<sup>5</sup>
- Seafood producers must turn these risks into opportunities, by investing in traceability, expanding their sustainable offerings, and engaging in fishery and farm improvements to reach sustainability.

## TAKEAWAY FOR FIs

Corporate commitments are driving rapid increases in global demand for certified and traceable seafood products. If seafood producers, processors and brands are unable to keep up with the demand for certified sustainable raw materials, they may lose market access and market share. This can expose financiers to risks, like credit risk and market risk, as they struggle to hit revenue targets.

# REGULATORY RISKS

## Anti-IUU Fishing Laws

- ∞ **The EU Catch Certificate Scheme (2010)** enables the EU to issue “yellow and red cards” to exporting countries as warnings for inaction against IUU, or to black-list countries that are non-compliant with the scheme.<sup>1</sup>
- ∞ **The US Seafood Import Monitoring Program (SIMP) (2018)** requires stringent reporting and record keeping for seafood imports to identify products linked to IUU fishing.<sup>2</sup>
- ∞ **Japan’s new anti-IUU fishing law (2020)** Similarly establishes new requirements to demonstrate the legal origins of seafood imports.<sup>3</sup>

## Anti-Slavery Laws

- ∞ **Section 307 of the US Tariff Act (1930)** prohibits the import of goods that were manufactured or produced, either wholly or in part, by forced labor. The US Customs and Border Protection (CBP) agency has issued **six separate import detentions** since January 2019 related to seafood harvested using suspected forced labor.<sup>4</sup>
- ∞ **The UK Modern Slavery Act (2015)** established strict penalties for convicted traffickers and requires all UK companies with sales > GBP 36 million and having global supply chains to publicly report on their efforts to prevent slavery.<sup>5</sup>

## Biodiversity Protection

- ∞ **US Marine Mammal Protection Act (1975)** Under new MMPA Import Provisions, **122 countries** identified as having significant marine mammal bycatch must adopt regulations equivalent to the US Marine Mammal Protection Act or lose the ability to export to valuable US markets.<sup>6</sup>
- ∞ Imports of some species from **Mexico** have already been restricted due to fishery impacts on the **critically endangered Vaquita porpoise**.<sup>7</sup>

## TAKEAWAY FOR FIS

Exporting companies, and their financiers, need to keep a close eye on changing regulations in key import countries to ensure that their E&S practices are aligned with requirements, to prevent losing access to key markets. Similarly, importers and their financiers, also need to monitor changes in import regulations (and their suppliers ability to align with these requirements) to ensure they do not face risks associated with supply chain disruptions

1. EU Regulation to prevent, deter and eliminate illegal, unreported and unregulated fishing (IUU) 2010; 2. US Seafood Import Monitoring Program 2018; 3. Japan anti-IUU Seafood Import law 2020; 4. US Tariff Act 1930; 5. UK Modern Slavery Act 2015; 6. US Marine Mammal Protection Act 1975; 7. NOAA Fisheries Seafood Import Restrictions, April 3, 2020



# CURRENT INDUSTRY CHALLENGES CONTRIBUTE TO THESE RISKS INCLUDING:



**WEAK GOVERNANCE,  
ILLEGALITY & SUBSIDIES**



**GLOBAL, COMPLEX, AND  
FRAGMENTED SUPPLY CHAINS  
WITH MANY SMALL-SCALE ACTORS**



**LACK OF TRANSPARENCY  
& DATA DEFICIENCIES**



Photo: © Antonio Busiello



## Many seafood companies are beginning to address these issues; but much more needs to be done

1

In 2021, the Seafood Sustainability Index<sup>1</sup> ranked 30 of the leading global seafood companies on their sustainability performance. Most of the leading seafood companies publicly recognized their responsibility to manage E&S issues; but less than half had made time-bound commitments to sustainable fisheries and aquaculture; and several had made no commitment at all.

2

50% had either made no commitment to traceability, or only a general commitment. Only 1 company had made a specific traceability commitment to implement GDST standards.

3

Less than half of companies are publicly reporting, to any extent, their progress against achieving their seafood sustainability commitments. Only 10% were reporting progress against commitments for 100% of their seafood portfolios.

Photo: © Antonio Busiello

1. World Benchmarking Alliance (2021)

# In the meantime, **banks and investors are exposed to material financial risks** and need to act fast.

1

In 2021, 86% of the most influential banks in seafood-related lending <sup>1</sup> had not yet made any commitments, or issued any policy statements, to reduce or eliminate overfishing and conversion from their seafood lending portfolios.

2

Of the few banks that had made commitments, none had yet disclosed specific, measurable performance targets;

3

And none were yet reporting on progress towards achieving their commitments.

1. Based on a mid 2021-analysis by WWF of 41 banks that collectively provide 50% of the capital going towards companies operating across seafood supply chains



# WHAT SHOULD **FINANCIAL INSTITUTIONS** BE EXPECTING FROM SEAFOOD COMPANIES TO MANAGE AND MITIGATE RISKS?

1

Align with best practice standards and certifications

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2

Ensure traceability back to source of production (vessel and farm)

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3

Be transparent about goals and efforts

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4

Achieve reasonable assurance using independent verification

**“The biggest risk is  
inaction. Inaction today.”**

**- Mark Carney, UN Special Envoy and Former Governor of the Bank of England**

# FORTUNATELY, THE WORLD IS BEGINNING TO WAKE UP TO THESE RISKS...

15 March 2022

**NGFS acknowledges that nature-related risks could have significant macroeconomic and financial implications**



15 March 2022

**TNFD Releases First Beta Version of Nature-related Risk Management Framework for Market Consultation**



8 February 2022

**Oceans fund swells to €95m**



15 March 2022

**Biodiversity concerns represent the next frontier in climate disclosure, new framework says**



24 March 2022

**The EU's new definition of 'sustainability' will have major financial implications for seafood**



24 March 2022

**Future Planet Capital launches €20m oceans fund**



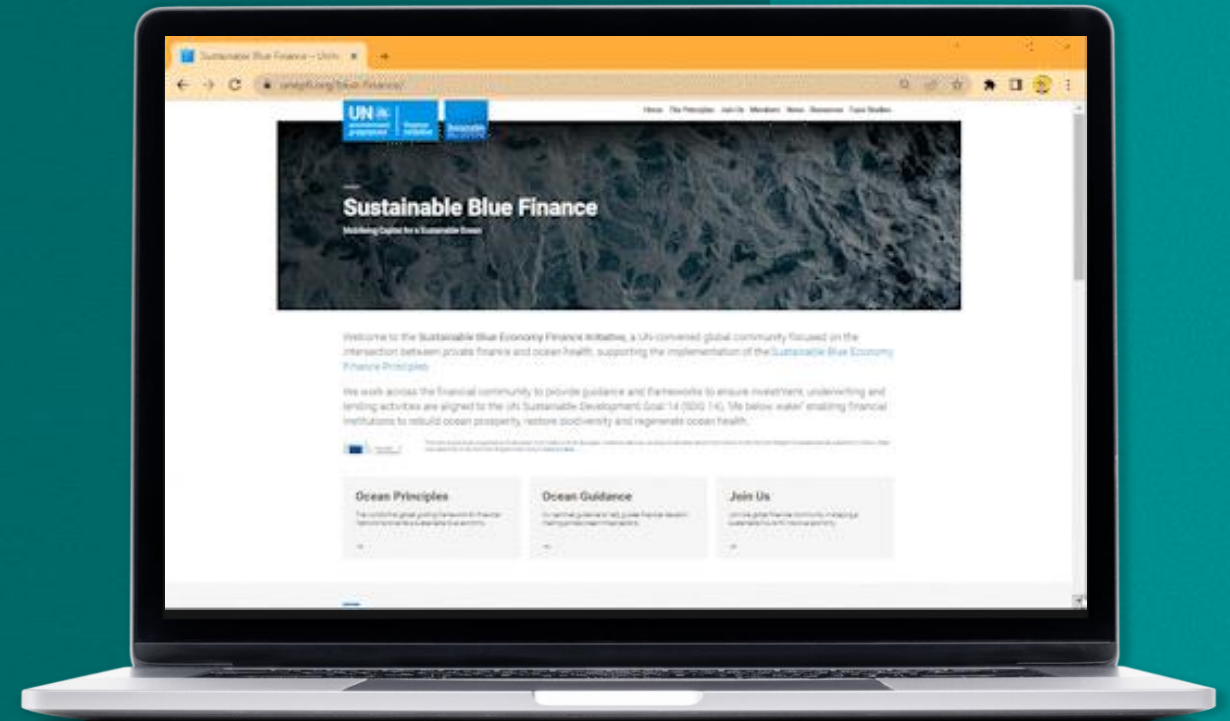
... WHAT'S MORE, THERE IS  
**PRACTICAL GUIDANCE**  
AVAILABLE TO HELP BANKS  
AND INVESTORS NAVIGATE  
THESE CHALLENGES.

[Une-pfi.org](https://www.une-pfi.org)

[The Principles](#)

[The Guidance](#)

[Case Studies](#)



A NUMBER OF **FINANCIAL INSTITUTIONS** ARE ALREADY TAKING CONCRETE STEPS







### **Structuring sustainability-linked seafood loans**

Rabobank has issued a number of sustainability-linked loans since 2019 with E&S KPIs such as: increasing ASC certification, getting farms into AIPs, reducing antibiotic use, improving social conditions, and clean energy commitments. <sup>1</sup>

### **Membership to industry sustainability platforms**

Rabobank is a member of the UNEPFI Sustainable Blue Economy Finance Principles as well as the UNEPFI Seafood Finance Working Group <sup>2</sup>

<sup>1</sup>. UNEPFI, 2020

<sup>2</sup>. For more information, please see slide 23.



# **BNP PARIBAS**

### **Setting quantifiable portfolio targets to drive sustainable seafood finance**

BNP Paribas has committed to supporting a sustainable blue economy by setting quantified financing targets. The bank has established a core set of criteria to frame its financing and investing activities related to wild-caught fisheries and aquaculture, among other blue economy sectors.

### **Engaging with clients to fight IUU**

BNP Paribas engages in dialogue with its clients on fishing techniques and geographical zones, with a particular emphasis on eliminating IUU from its portfolio. <sup>1</sup>

<sup>1</sup>. BNP Paribas (2020)

# SO WHAT ACTIONS CAN FINANCIAL INSTITUTIONS TAKE ?

1

Strengthen ESG and sustainable seafood policies in line with guidance developed by the UNEP FI's Sustainable Blue Economy Finance Initiative

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2

Integrate sustainability requirements into corporate loans & bonds (e.g. sustainability-linked loans and bonds)

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3

Develop impact-led products for projects or businesses focused on achieving nature and climate positive outcomes

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4

Actively engage with clients or portfolio companies to support implementation of sustainability best practices



**“Financial institutions provide the financing, investment and insurance required to power ocean-related sectors, therefore financial decisions taken today impact the lives and livelihoods of future generations.”**

**- Peter Thompson, UN Special Envoy for Oceans**

Photo: © WWF-US / James Morgan

# Key takeaway messages:

- 1 Business-as-usual seafood production, distribution, and consumption is having negative E&S impacts --including biodiversity and nature loss, climate impacts, and illegality and human rights abuses
- 2 Negative E&S impacts in the seafood sector translate directly to material risks for banks, investors and insurers
- 3 While some progress has been made, companies need to do more to ensure sustainable and responsible practices
- 4 Banks and other financial institutions can begin addressing these risks by implementing the UNEP FI Sustainable Blue Economy Principles and Guidance for banks, insurers, and investors.

**Thank you**

for more information please visit [worldwildlife.org](http://worldwildlife.org)

# Appendix / Further Reading

Agnew et al. 2009. Estimating the Worldwide Extent of Illegal Fishing. PLOS ONE.  
<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0004570>

Blank, Christine 2019. Bahamas' fisheries face huge losses in wake of Hurricane Dorian. Seafood Source. September 16, 2019.  
<https://www.seafoodsource.com/news/supply-trade/bahamas-fisheries-face-huge-losses-in-wake-of-hurricane-dorian>

Blank, Christine 2020. Walmart links sustainability initiative to higher seafood sales. Seafood Source. October 27, 2020.  
<https://www.seafoodsource.com/news/foodservice-retail/walmart-links-sustainability-initiative-to-higher-seafood-sales>

Blank, Christine 2022. Bumble Bee “adamantly disagrees” with forced labor lawsuit claims. Seafood Source.  
<https://www.seafoodsource.com/news/environment-sustainability/bumble-bee-adamantly-disagrees-with-forced-labor-lawsuit-claims>

Brest Commitments for the Oceans 2022.  
<https://www.oneplanetsummit.fr/sites/default/files/2022-03/BREST-COMMITMENTS-FOR-THE-OCEANS.pdf>

BNP Paribas 2019. CSR Position Statement.  
<https://group.bnpparibas/en/news/blue-economy-bnp-paribas-commits-protecting-oceans>

BNP Paribas 2020. Corporate and Social Responsibility: BNP Paribas and Ocean Protection.  
[https://group.bnpparibas/uploads/file/ocean\\_csrapublicposition\\_bnpparibas.pdf](https://group.bnpparibas/uploads/file/ocean_csrapublicposition_bnpparibas.pdf)

Coral Reef Alliance 2022. Coral Reefs 101: Direct Threats. Unsustainable Fishing.  
<https://coral.org/en/coral-reefs-101/direct-threats/>

# Appendix / Further Reading

Davies et al. 2009. Defining and estimating global marine fisheries bycatch.

[https://assets.wwf.org.uk/downloads/bycatch\\_paper.pdf](https://assets.wwf.org.uk/downloads/bycatch_paper.pdf)

FAO 2003. Status and trends in mangrove area extent worldwide. In: Wilkie ML, Fortuna S, editors. Forest Resources Assessment Working Paper No. 63. Rome: Forest Resources Division.

<https://agris.fao.org/agris-search/search.do?recordID=XF2008433657>

FAO 2020. The State of the World Fisheries and Aquaculture (SOFIA) 2020. Sustainability in Action.

<https://www.fao.org/publications/sofia/2020/en/>

FAO 2022. The State of the World Fisheries and Aquaculture (SOFIA) 2022. Towards Blue Transformation.

<https://www.fao.org/publications/sofia/2022/en/>

Gaines et al. 2018. Improved fisheries management could offset many negative effects of climate change. Science Advances.

<https://www.science.org/doi/10.1126/sciadv.aao1378>

GlobeScan 2020. Concern for the Oceans Drives Consumers to 'Vote with their Forks' for Sustainable Seafood.

<https://globescan.com/2020/06/08/msc-consumers-vote-with-their-forks-sustainable-seafood/>

The Guardian 2021. Revealed: seafood fraud happening on a vast global scale.

<https://www.theguardian.com/environment/2021/mar/15/revealed-seafood-happening-on-a-vast-global-scale>

# Appendix / Further Reading

High Level Panel for a Sustainable Ocean Economy 2022. Blue Paper: Illegal, Unreported and Unregulated Fishing and Associated Drivers.

<https://oceanpanel.org/wp-content/uploads/2022/05/Illegal-Unreported-and-Unregulated-Fishing-and-Associated-Drivers.pdf>

ILO 2013. Caught at Sea: Forced Labor and Trafficking in Fisheries.

[https://www.ilo.org/wcmsp5/groups/public/---ed\\_norm/---declaration/documents/publication/wcms\\_214472.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---declaration/documents/publication/wcms_214472.pdf)

INTERPOL 2020. Fighting illegal, unreported and unregulated fishing.

<https://www.interpol.int/en/News-and-Events/News/2020/Fighting-illegal-unreported-and-unregulated-fishing>

IPCC 2019. Special Report on the Ocean and Cryosphere in a Changing Climate.

[https://www.ipcc.ch/site/assets/uploads/sites/3/2019/12/SROCC\\_FullReport\\_FINAL.pdf](https://www.ipcc.ch/site/assets/uploads/sites/3/2019/12/SROCC_FullReport_FINAL.pdf)

Lawrence, Felicity 2015. Costco and CP Foods face lawsuit over alleged slavery in prawn supply chain. The Guardian.

<https://www.theguardian.com/global-development/2015/aug/19/costco-cp-foods-lawsuit-alleged-slavery-prawn-supply-chain>

NOAA 2020. NOAA Fisheries: Marine Mammal Protection: Seafood Import Restrictions.

<https://www.fisheries.noaa.gov/foreign/marine-mammal-protection/seafood-import-restrictions>

Oceana 2013. Oceana Study Reveals Seafood Fraud Nationwide.

<https://usa.oceana.org/reports/oceana-study-reveals-seafood-fraud-nationwide/>



# Appendix / Further Reading

Planet Tracker 2020. Traceable Returns: Traceability could double the margins of seafood processing companies and increase the sustainability of the entire seafood industry.  
<https://seafoodsustainability.org/wp-content/uploads/2020/11/Traceable>Returns-report.pdf>

Ross Strategic, Global Impact Advisors, and EON Impact Consulting 2020. Global Seafood Markets Strategy Evaluation Final Report.  
<https://www.packard.org/wp-content/uploads/2020/10/Global-Seafood-Markets-Strategy-Evaluation-Final-Report.pdf>

US Department of Labor 2016. List of Goods Produced by Child Labor or Forced Labor.  
[https://www.dol.gov/sites/dolgov/files/ILAB/reports/TVPRA\\_Report2016.pdf](https://www.dol.gov/sites/dolgov/files/ILAB/reports/TVPRA_Report2016.pdf)

UNEP Finance Initiative (UNEP FI) 2020. Turning the Tide: How to Finance a Sustainable Ocean Recovery.  
<https://www.unepfi.org/publications/turning-the-tide/>

Willis Towers Watson & WWF 2020. Innovative Insurance Mechanisms for Sustainable Shrimp Aquaculture in Vietnam. Unpublished data.

World Benchmarking Alliance 2021. Seafood Stewardship Index.  
<https://www.worldbenchmarkingalliance.org/publication/seafood-stewardship-index/rankings/>

WWF UK 2020. Our Planet: Too Big to Fail (video).  
<https://www.ourplanet.com/en/video/our-planet-too-big-to-fail/>

WWF 2019. Risk and Opportunity in the Seafood Sector: The Business Case for Sustainability.  
<https://seafoodsustainability.org/wp-content/uploads/2019/06/Business-Case-for-Sustainability-2019.pdf>

WWF 2021. Analysis of banks providing capital to companies operating across seafood supply chains. Unpublished data.

# National Laws & Regulations Relating to IUU Fishing & Human Rights

EU Regulation to prevent, deter and eliminate illegal, unreported and unregulated fishing (IUU) 2010.

[https://oceans-and-fisheries.ec.europa.eu/fisheries/rules/illegal-fishing\\_en](https://oceans-and-fisheries.ec.europa.eu/fisheries/rules/illegal-fishing_en)

Japan Anti-IUU Seafood Import Law 2020. TECHNICAL NOTE on Class II Aquatic Animals and Plants Ver 2.0.

<https://www.jfa.maff.go.jp/attach/pdf/220614-3.pdf>

UK Modern Slavery Act 2015.

<https://www.legislation.gov.uk/ukpga/2015/30/contents/enacted>

US Marine Mammal Protection Act (MMPA) 1975.

<https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-protection-act>.

Also see: <https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-protection-act-policies-guidance-and-regulations>

US Seafood Import Monitoring Program (SIMP) 2018.

<https://www.regulations.gov/document/NOAA-NMFS-2015-0122-0111>.

Also see: <https://www.fisheries.noaa.gov/international/seafood-import-monitoring-program>

US Tariff Act 1930. Section 307 (19 U.S.C. §1307).

<https://www.govinfo.gov/content/pkg/USCODE-2011-title19/html/USCODE-2011-title19-chap4-subtitleII-partI-sec1307.htm>