



The Ocean Framework

An Investor guide to navigating ocean risks and opportunities

First Sentier MUFG
Sustainable Investment Institute

Executive Summary

About the Institute

The First Sentier MUFG Sustainable Investment Institute (the Institute) provides research on topics that can advance sustainable investing. As investors, both First Sentier Group and MUFG recognise our collective responsibility to society and that investment decisions should be made with consideration to our communities both now and in the future.

The Institute commissions research on Environmental, Societal and Governance (ESG) issues, looking in detail at a specific topic from different viewpoints. The Institute recognises that investors are now looking in far greater depth, and with far greater focus, at issues relating to sustainability and sustainable investing. These issues are often complex and require deep analysis to break down the contributing factors. If as investors we can better understand these factors, we will be better placed to consider our investment decisions and use our influence to drive positive change for the benefit of the environment and society.

The Institute is jointly supported by First Sentier Group (FSG) and Mitsubishi UFJ Trust and Banking Corporation, a consolidated subsidiary of MUFG. Representatives of both organisations will provide input to the activities of the Institute.

An Academic Advisory Board advises the Institute on sustainability and sustainable investment research initiatives. The Academic Advisory Board comprises prominent leaders from academia, industry and nongovernmental organisations in the fields of Responsible Investment, climate science and related ESG endeavours. The Board provides independent oversight to ensure that research output meets the highest standards of academic rigour.

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All our investment teams – whether in-house or individually branded – operate with discrete investment autonomy, according to their investment philosophies.

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<https://www.tr.mufg.jp/english>

About Chronos Sustainability



This report was produced by Chronos Sustainability Ltd for the First Sentier Investors MUFG Sustainable Investment Institute. Chronos Sustainability was established in 2017 with the objective of delivering transformative, systemic change in the social and environmental performance of key industry sectors through expert analysis of complex systems and effective multi-stakeholder partnerships. Chronos works extensively with non-profits, corporates, global investors and global investor networks to build their understanding of the investment implications of sustainability related issues, developing tools and strategies to enable them to build sustainability into their investment research and engagement. For more information visit www.chronossustainability.com.

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Executive Summary



What is the ocean and why does it matter?

The world has one ocean. It plays a central role in climate regulation by absorbing 90% of excess heat and 30% of atmospheric carbon emissions. Over 80% of the world's biodiversity is found in the ocean; in habitats and ecosystems that sequester carbon, provide food security, serve as nursery grounds for commercially important fish species and protect coastlines from destructive storm energy. Billions of people's livelihoods depend on the ocean in key sectors that include fisheries, tourism and marine transportation which moves 90% of global trade across the world.

The economy depends on a healthy ocean

The global economy and virtually all economic sectors are either directly or indirectly dependent on the ecosystem services derived from the ocean. Yet, despite its economic importance, the impact of declining ocean health continues to be overlooked or downplayed in risk models and investment strategies. This report explains why investors need to pay much more attention to the ocean and to ocean-related risks, impacts and dependencies in their investment research and decision-making. It describes the key features of major ocean-dependent sectors (maritime transportation, marine and coastal tourism, fisheries, aquaculture, ports, sub-marine telecommunications, offshore renewables, blue biotechnology and marine pharmaceuticals) and discusses the impacts and dependencies these sectors have on the ocean, and the scale and significance of the associated risks and opportunities.

Why Should Investors be concerned?

Companies across these sectors depend on stable fish stocks, functional coastal habitats, predictable weather systems and the carbon sequestration that the ocean provides. At the same time, industrial and destructive fishing, dredging, carbon emissions, habitat conversion and marine pollution degrade those very systems. Today, these drivers of ocean degradation coupled with the negative effects of climate change are impacting the functioning of oceanic systems and disrupting the natural equilibrium between the ocean, land and atmosphere.

For companies operating in or near the ocean (and for investors in these companies), this continued degradation presents significant risks to business-as-usual as the resources that they depend on become scarce or threatened.

Understanding exposure

To continue benefitting from the ecosystem services and economic potential of the ocean, investors need to systematically assess and evaluate their exposure to ocean-related risks and opportunities and, where identified, understand how companies are responding to mitigate and manage these risks.

The Ocean Framework has been developed as a high-level, sector-agnostic decision-making framework to support investors through this process.

The Ocean Framework equips investors with comprehensive guidance, tools, and resources to:

1. Identify, assess, and manage ocean-related risks and opportunities across portfolios;
2. Systematically prioritise sectors, companies, and issues most impacted by or dependent on ocean ecosystems; and
3. Pinpoint high-risk geographies, evaluate company responses to ocean sustainability issues, and access key data and assessment tools.

The Ocean Framework is complemented by **Engagement Guidance** that supports investors wanting to engage with priority companies to further understand how identified risks and opportunities are being managed. The Guidance provides general (sector agnostic) questions as well as tailored questions and insights for three high-impact sectors: Fisheries, Aquaculture and Maritime transportation (which includes shipping and cruise tourism).

Backing a sustainable blue economy

Achieving global climate and biodiversity targets and the Sustainable Development Goals by 2030 is not possible if ocean sustainability remains overlooked in corporate strategies and investment decision-making.

Inaction presents the biggest risk of all to the future health of the ocean.

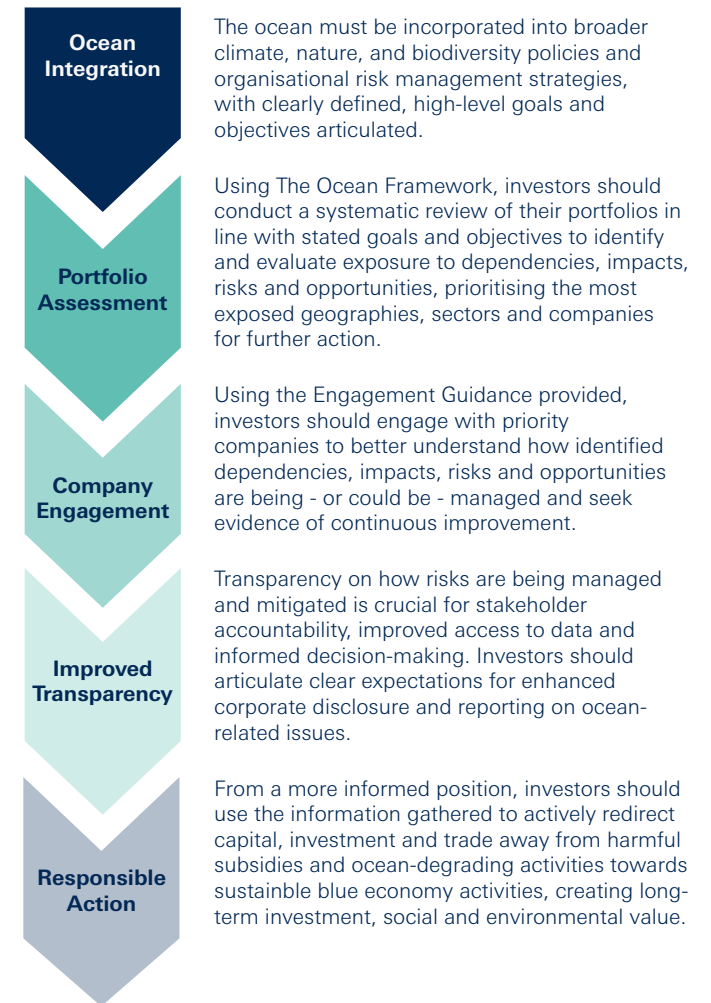
Improving ocean literacy – a deeper understanding of the inherent value of the ocean and the potential that a sustainable blue economy has for future generations and financial returns – is an important first step towards redirecting capital away from unsustainable practices in the traditional blue economy and aligning investments with sustainable economic activities. But it cannot be the only step.

A deeper understanding of the scale of ocean sustainability issues – and future implications for both society and the natural environment and long-term economic growth – should drive companies and their investors to prioritise activities that:

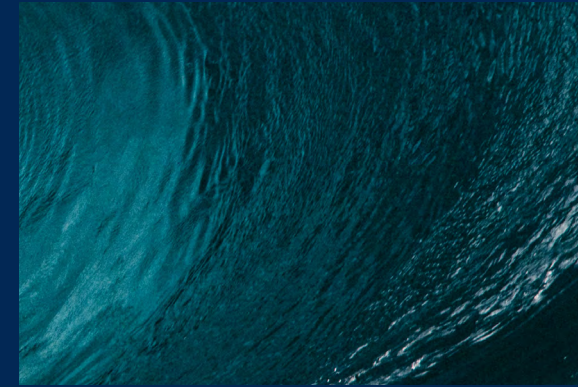
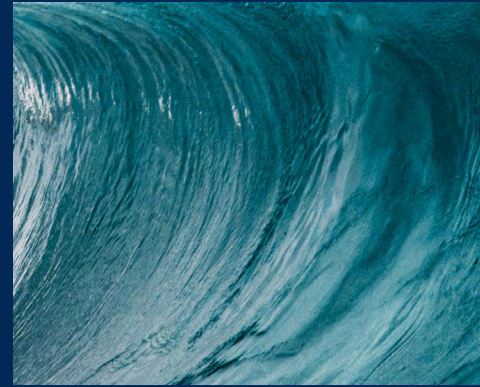
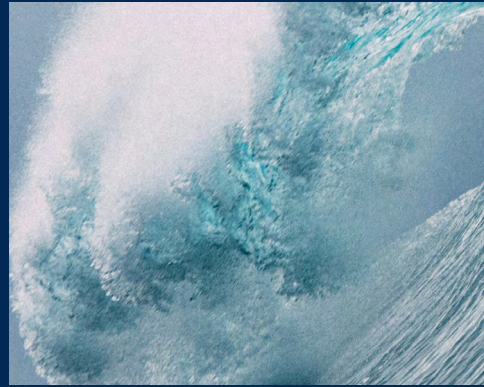
1. **Preserve ocean ecosystem integrity** by respecting conservation objectives and engaging with all stakeholders, including governments, coastal communities and Indigenous Peoples, and public and private institutions;
2. **Adopt a precautionary approach** to maximise social and economic benefits, such as food security, equity, and poverty eradication for present and future generations;
3. Ensure **economic activities restore and increase resilience** of oceanic ecosystems and conserve biodiversity to support sustained productivity;

4. **Operate within safe planetary boundaries** to mitigate the impacts of climate change, reduce pollution, and prevent biodiversity loss.

Investors and finance professionals can help drive the transition to – and realise the full potential of – a sustainable blue economy in 5 clear steps:



At a glance: This report is structured in four parts:



Part 1

Diving into the Seascape explains the inherent value of the ocean in terms of biodiversity, climate regulation, food supply and economic activity. Breaking down the science, the importance of the ocean-climate nexus is explained and draws into focus the five drivers of ocean degradation that threaten to destabilise vital ocean systems.

Part 2

Why ocean sustainability is relevant to investors highlights why degrading ocean health and the unsustainable use of ocean resources presents systemic economic risks. Focusing on key sectors, this section explores the impacts, dependencies, risks and opportunities that investors could be exposed to, across asset classes and investment portfolios before laying out investor recommendations that support the transition to a sustainable blue economy.

Part 3

The Ocean Framework is a practical and accessible decision-making framework for investors wanting to identify, assess and manage ocean-related risks and dependencies across sectors and investment portfolios.

Part 4

Engagement Guidance to support investors with sector-agnostic and sector-specific (Fisheries, Aquaculture and Maritime Transportation) engagement with companies, offering a set of initial and follow up questions to put to companies to find out how they are identifying, assessing and managing to ocean-related risks and opportunities.

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