HAVILA SHIPPING

TASK FORCE CLIMATE-RELATED FINANCIAL DISCLOSURES REPORT 2022

RECOMMENDED DISCLOSURES

TCFD encourages **standardized reporting of financially material climate-related risks and opportunities** to provide investors, lenders, and insurers with comparability when assessing and pricing companies.

The TCFD recommendations are grouped into four areas of disclosure that represent core elements of how organizations operate: **governance, strategy, risk management, and metrics and targets.**

The four overarching recommendations are supported by key climate-related financial disclosures—referred to as recommended disclosures—that build out the framework with information that will help investors and others understand how reporting organizations assess climate-related issues.

CORE ELEMENTS OF THE TCFD RECOMMENDATIONS

GOVERNANCE

Disclose the company's governance around climate-related risk and opportunities.

STRATEGY

Disclose the actual and potencial impacts of climate-related risk and opportunities on the company's businesses, strategy, and financial planning.

RISK MANAGEMENT

Disclose the processes used by the company to identify, assess, and manage climate-related risk.

METRICS AND TARGETS

Disclose the metrics and targets used to assess and manage relevant climate-related risk and opportunities.

GOVERNANCE	STRATEGY	RISK MANAGEMENT	METRICS AND TARGETS
Disclose the company's governance around climate-related risks and opportunities.	Disclose the actual and potential impacts of climate-related risks and opportunities on the company's businesses, strategy, and financial planningwhere such information is material.	Disclose how the company identifies, assesses, and manages climate-related risks.	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunitieswhere such information is material.
RECOMMENDED DISCLOSURES			
Describe the board's oversight of climate-related risks and opportunities.	Describe the climate-related risks and opportunities the company has identified over the short, medium, and long term.	Describe the company's processes for identifying and assessing climate-related risks.	Disclose the metrics used by the company to assess climate-related risks and opportunities in line with its strategy and risk management process.
Describe management's role in assessing and managing climate-related risks and opportunities.	Describe the impact of climate-related risks and opportunities on the company's businesses, strategy, and financial planning.	Describe the company's processes for managing climate-related risks.	Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.
	Describe the resilience of the company's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the company's overall risk management.	Describe the targets used by the company to manage climate-related risks and opportunities and performance against targets.

The framework separates recommended disclosures into three main categories: **Transition risks, physical risks, and opportunities**. The TCFD has also incorporated potential financial impact as an integral part of its disclosure recommendations.

GOVERNANCE

Board of Directors' oversight of climate-related risks and opportunities

Sustainability and climate-related risks and opportunities are parts of Havila Shipping's strategy. The Board of Directors considers sustainability and climate-related issues when reviewing and guiding Havila Shipping's strategy and business plans, action plans and major capital expenditures. Moreover, the Board of Directors considers climate-related issues in the monitoring, implementation, and performance of strategic objectives. One example is the ESG strategy for 2023-2025 that was resolved by the Board of Directors in August 2022. This strategy period deals with climate-related risks and opportunities, in particular putting a stronger focus on decarbonization measures with short, mid and long term ambitions and targets. The Board of Directors monitors and oversees progress against targets through several workflows:

- Actual performance related to the main environmental key performance indicators (KPI) (CO2 per operational day and the number of oil spills to the environment) are reported to the Board of Directors on a quarterly basis, and
- Implications of the strategy, which focus on climate-related risks and opportunities and more specifically decarbonization, are on the agenda at every Board meeting from 2023, and
- Climate-related risks are from 2023 assessed as an integral part of the company's overall risk review assessment which is discussed with the Board of Directors every quarter.

Management's role in assessing and managing climate-related risks and opportunities

The CEO and the CFO are the main ones responsible for assessing and managing climate-related risks and opportunities. A management team is put together under the ESG task group to drive the implementation of ESG strategy and support the risk reviews and mitigation plans.

The CEO is responsible for developing the strategy and setting targets for the Company, and ensuring the strategy is anchored in the organization, and with the Board of Directors. As an example, the ESG Strategy approved in August 2022 was developed by and within the responsibility of the CEO. In addition, the responsibility of the CEO is to make sure that climate-related issues are considered in all decision-making processes, both when interacting with customers, suppliers, and other stakeholders. For example, the CEO together with the ESG task group plan how to improve the operational efficiency of the fleet and decide which technical solutions and prototypes to test and install to improve the fuel efficiency of the vessels. The discussions with customers also include how Havila Shipping in co-operation with customers can improve carbon efficiency by reducing speed, and optimizing shore power, among other measures.

The **CFO** is responsible for Havila Shipping's risk review framework and risk management policy, monitoring risks including climate-related risks and establishing potential mitigating actions for the main risks. Representatives from different parts of the organization with different responsibilities are included in the quarterly risk assessment process as well as more ad hoc evaluations of climate-related issues. The CFO is responsible for all financial and sustainability reporting, including transparency around climate-related risks based on the TCFD framework, and in general, providing all stakeholders with relevant and correct information related to sustainability and financial performance.

The **ESG task group** defines, drives, and implements the sustainability strategy. It is responsible for ensuring that there are clearly established accountability, processes, and systems in place for ESG performance indicators. It is involved in ESG risk reviews and in establishing mitigation plans, including for climate-related risks.

GOVERNANCE DESCRIPTION	
BOARD OF DIRECTORS (BOD)	▪ Reviews, discusses with management, and approves the strategy and business plans including ESG topics and management of climate-related risks and opportunities. ▪ Reviews, approves, and monitors specific short-term targets and long-term goals and ambitions and monitors implementation and performance of objectives including climate-related ambitions and targets. ▪ Approves and oversees major capital expenditures and major plans of action. ▪ Oversees the environmental policy and strategy. ▪ Oversees the risk management policy. ▪ Monitors and oversees the risk management policy and framework. ▪ Discusses with management the quarterly risk review, including climate-related risks.

GOVERNANCE DESCRIPTION	
CHIEF EXECUTIVE OFFICER	▪ Main responsible for developing and implementing the general strategy and the environmental policy and strategy. ▪ Main responsible for managing climate-related risks and opportunities and reporting these to the Board of Directors.
CHIEF FINANCIAL OFFICER	▪ Main responsible for risk review framework and policies, performing risk reviews and for establishing mitigation plans, including for climate-related risks. ▪ Main responsible for monitoring and assessing climate-related risks and opportunities.
ESG TASK GROUP CEO, Operations Director, Chief Financial Officer, Technical Manager and HSEQ Manager	▪ Defines and drives the implementation of the sustainability strategy. It is responsible for ensuring that there are clearly established accountability, processes, and systems in place for ESG performance indicators. ▪ Involved in ESG risk reviews and in establishing mitigation plans, including for climate-related risks.

STRATEGY

Material climate-related risks and opportunities

We have based our time horizons on our ESG strategy, useful life of vessels, the IMO GHG Strategy and the Paris agreement: Short-term 0-3 years, Medium-term 3-10 years, and Long-term 10-30 years.

The climate-related risks and opportunities that we believe might have a material financial impact on the organization have been identified through:

- Day-to-day business and interaction with stakeholders such as customers, investors, employees, regulators, banks etc.
- The company's overall risk review which is discussed with the Board of Directors every quarter.
- A specific Climate-related risks assessment performed with the ESG task group in the second half of 2022.

The following two figures (Main climate-related risks and Main climate-related opportunities) include what has been assessed as the company's main climate-related risks and opportunities. The three main risk are within the risk types market, technology and policy/legal and are all transition risks related to decarbonization.

FIGURE : MAIN CLIMATE-RELATED RISKS

RISK TYPE		CLIMATE-RELATED RISKS	POTENTIAL FINANCIAL IMPACTS	SHORT 0-3Y	MED 3-10Y	LONG 10-30Y
TRANSITION RISKS	TECHNOLOGY	▪ Transition to lower emissions technology: Uncertainty related to future fuel technology. ▪ Substitution of the existing fleet with lower-/zero emission vessels.	▪ Propulsion on existing vessels might be outdated prior to the end of the expected life of the vessel. Lower vessel values or recycling of vessels resulting in write-downs. ▪ Decreased revenue due to less competitive fleet. ▪ Lack of access to capital if existing fleet is out of favor. ▪ Capital expenditures in relation to retrofit or new vessel investments.	Low	Medium	High
	MARKET	▪ Change in client preferences: Reduced demand for traditional offshore vessels as demand for oil and gas deteriorates RISK.	▪ More vessels will compete for fewer traditional offshore services and rates might deteriorate and revenue decrease. ▪ Vessels might be idle or unfit and hence recycled resulting in write-downs. ▪ Revenue decreases due to less efficient vessels (higher carbon cost). ▪ Charterers may favor more efficient vessels for future contracts.	Low	Medium	High
	POLICY AND LEGAL	▪ Introduction of new regulations: EU Taxonomy, IMO. ▪ Poorly designs regulations might have perverse incentives.	▪ New policies and regulations within the financial sector (e.g. Poseidon principles / EU Taxonomy) might impact pricing and availability of capital. ▪ Future EU ETS and IMO's requirements might require investments or increase operational costs and possibly impact the vessels' earnings capacity.	Low	Medium	High
	REPUTATION	▪ Stigmatization of shipping as a sector and hence negative impact on investor sentiment/ increased stakeholder concern. ▪ Havila Shipping becomes a lagger among its peers, not delivering on targets and expectations	▪ Access to capital. ▪ Access to customers/contracts and hence negative impact on revenues.	Medium	Medium	Low
PHYSICAL RISKS	ACUTE	▪ Extreme weather events such as floods, storms and heavy precipitation leading to: ▪ Idling of vessels. ▪ Damage to vessels. ▪ Temporary stop of customers' offshore operations.	▪ Repair costs due to vessel damage. ▪ Lower revenues from lower spot activity.	Low	Medium	Medium
	CHRONIC	▪ Sea level high affecting ports. ▪ Climate change increasing pandemic probabilities.	▪ Reduced operations due to affected ports and personnel.	Low	Medium	Medium

FIGURE : MAIN CLIMATE-RELATED OPPORTUNITIES

OPPORTUNITY TYPE	CLIMATE-RELATED OPPORTUNITIES	POTENTIAL FINANCIAL IMPACTS	SHORT 0-3Y	MED 3-10Y	LONG 10-30Y
RESOURCE EFFICIENCY	▪ Efficient offshore operations	▪ Higher revenue. By improving our operational and carbon efficiency, our competitive advantage improves.	Low	Medium	Low
PRODUCTS, SERVICES, MARKETS	▪ Services to new type of energy segment	▪ Higher revenue. Offshore service demand can increase as wind energy overlaps oil and gas production.	Medium	Medium	High
	▪ Close customer co-operation	▪ Higher revenue. Offshore wind demand for our services will come partly from traditional clients with whom we have an established relationship.	Medium	Medium	Medium
	▪ Technologyh co-operation	▪ Lower development cost and faster access to new technology for new contracts	Low	Medium	Low

Our ESG strategy takes into consideration climate change

Shipping is considered a “hard to abate” sector when discussing GHG emissions. Technology and fuel availability have a long way to go which makes designing a decarbonization path very challenging. While fuel efficiency has also been part of the work under HSEQ, our ESG strategy approved by the board of directors in 2022 established clear objectives linked to decarbonization. Havila Shipping commits to achieving net zero by 2050 to help limit the global temperature rise to 1.5 °C. This is also aligned with Havila Holding’s climate goals. In addition, we have a mid-term goal to reduce our CO2 emissions intensity by 50% by 2030 vs 2008 benchmark. In the short-term, we plan to reduce the emissions intensity by 3% each year until 2025.

In the near term, we plan to focus on measures in our control given our current fleet and contractual obligations. This includes a combination of expanded digitalization, electrification, optimized operations, and an increase in fuel-efficiency-related maintenance. All of this while collaborating continuously with our charterers to find new efficiency solutions. As we turn to the second half of this decade, we expect positive externalities to reduce the CO2 footprint of our fleet. This could vary from the expansion of charging stations at ports to a higher focus on speed optimization in offshore shipping. Our 2030 target will require starting a fleet renewal program with carbon-neutral solutions before 2030.

We have identified three Climate-related risks with the highest impact on Havila Shipping. Policy and legal have an increasing role in decarbonizing shipping. While offshore shipping is not covered by IMO's short-term measures such as CII and EEXI, we believe we have a responsibility to support IMO's GHG emissions strategy. From a risk management perspective, it is expected that all shipping segments will eventually be covered by efficiency measures. Similarly, while our segment may not be part of the inclusion of shipping in the EU ETS in the short-term, it will be in the second half of the decade. From 2025, offshore ships over 5,000 GT will be required to report under the MRV. From 2027, included in the EU ETS. From 2025, smaller ships (general cargo and offshore) from 400-5000GT will be included in the MRV. By the end of 2026, the Commission will assess whether they should be included in the ETS. Other regulations such as EU taxonomy and further requirements to publish non-financial indicators are expected in the near term and we are preparing for them.

Technology and the transition to lower emissions technology and fuel is another key risk. Uncertainty related to future fuel technology and access to alternative fuels is high. Climate-related regulation has a stronger focus on other shipping segments allowing us to focus on improving the carbon efficiency in our operations while we adapt to a changing market and regulatory environment. The need for other shipping segments to implement carbon-neutral and emission-free technology and fuels at a faster pace than us will probably reduce our technology risk when deciding how to start a fleet renewal.

Market risks can involve taking too long to decarbonize and reducing our attractiveness in our segment, as well as not adapting fast to new upcoming sectors such as offshore wind energy.

Our ESG strategy has clear targets and actions to decarbonize our fleet and focuses on climate-related regulation and market changes.

The resilience of our ESG Strategy Against Climate-Related Scenario

The scenario analysis is a qualitative analysis based on the "Sustainable Development Scenario" (SDS) in line with a "well below 2 °C" pathway based on IEA World Energy Outlook 2021. The SDS is based on a surge in clean energy policies and investment that puts the energy system on track for key Sustainable Development Goals (SDGs). In this scenario, all current net-zero pledges are achieved in full and there are extensive efforts to realize near-term emissions reductions; advanced economies reach net zero emissions by 2050, China around 2060, and all other countries by 2070 at the latest.

Climate-related Scenario Analysis

TCFD		RISK	POTENTIAL FINANCIAL IMPACT	RISK LEVEL			MITIGATION STRATEGY
				SHORT TERM	MEDIUM TERM	LONG TERM	
				WELL BELOW 2C			
TRANSITION RISKS	POLICY AND LEGAL	▪ Regulations (EU ETS, EU Taxonomy, IMO, etc)	▪ Not classified as "Green" and hence not have access to "green funding" might impact negatively both access to capital and the cost of capital ▪ Tax or price on CO2 emissions will increase operational costs putting pressure on charter rates for traditional vessels	Low	Medium	High	▪ Havila Shipping has clear targets related to the decarbonization of the business, with an ambition to reduce CO2 emissions intensity by 50% by 2030 and reach net-zero by 2050 ▪ Havila Shipping vessels are not in the scope of part of IMO's short-term efficiency measures and the EU ETS inclusion of the maritime industry in the European carbon market. However, we should expect to have to comply with increasing regulations looking forward.
	TECHNOLOGY	▪ Transition to lower emissions technology	▪ Uncertainty related to future fuel technology and access to alternative fuels is high. Early investment in new propulsion technology will be risky as the chosen technology might not be the winner in the long run. ▪ When new technology matures that could lead to decreased asset value or asset useful life leading to write-offs of existing vessels and new vessels if investing in "the wrong" technology for the latter ▪ Another effect might be that older vessels have lower earnings than new vessels, impacting revenue negatively ▪ Waiting too long with investing in new vessels and technology could be a disadvantage in keeping any competitive advantage	Low	Medium	High	▪ Havila Shipping will intensify operational, technological, and maintenance measures to improve the fuel-efficiency performance of existing vessels, e.g. propeller cleaning frequency, draft optimization, shore-power optimization, etc. ▪ One of Havila Shipping's ambitions is to order carbon-neutral vessels before 2030.
	MARKET	▪ Change in customer preferences: Reduced demand for traditional offshore service vessels as demand for oil and gas deteriorates o preferer new vessels	▪ Charterers might choose to support new companies with more efficient newbuildings. ▪ As oil and gas demand peaks demand for traditional vessels might slow down.	Low	Medium	High	▪ Havila has a long-term relationship with its charterers and it is on continuous discussion and collaboration to make the vessels more energy efficient and evaluate decarbonization measures. ▪ Mitigation strategy for Policy and technology risks are aligned with managing market risk. ▪ Havila Shipping is providing offshore services for the growing offshore wind energy segment.

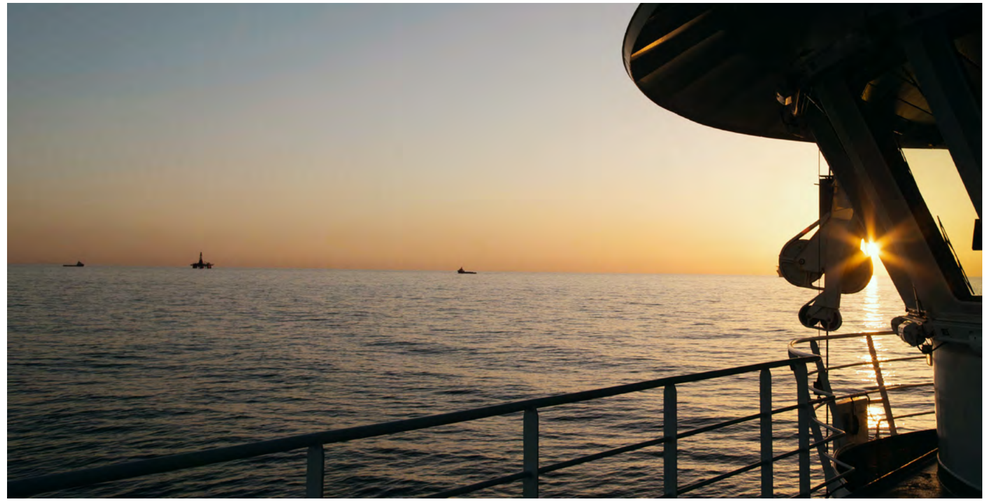
RISK MANAGEMENT

Process for identifying, assessing, and managing risks

Havila Shipping's process of identifying, assessing, and managing climate-related risks and opportunities is integrated into the risk management process. The risk assessment is performed on a quarterly basis with the finance, technical, HSEQ, Commercial, Operations, and sustainability management.

All relevant risks are assessed based on impact and probability levels. When identifying and assessing climate-related risks as for other risk types, we have defined the impact on our business using the following elements: Time horizon, probability, and financial impact. Operational, safety, and reputational consequences are also considered.

TIME HORIZON	PROBABILITY	IMPACT
LOW (0-3 YEARS)	<5%	< NOK 25 million
MEDIUM (3-10 YEARS)	5-40%	NOK 25-75 million
HIGH (10-30 YEARS)	>40%	>NOK 75 million



- On a quarterly basis a cross-functional team (finance, technical, HSEQ, Commercial, Operations and sustainability) discuss the overall risk development with a focus on main risks and new risks discovered, including assessing the impact and probability for each risk and defining potential mitigating actions for the main risks.
- The management discusses main risks with the Board of Directors on a quarterly basis, or more often if needed. The main risk is a risk already identified and well understood that could materially impact our financial results, reputation, business model, or strategy.
- When the combination of probability and impact is higher than what is accepted, mitigating actions are implemented either based on management decision or if relevant, after discussions with the Board of Directors.

METRICS AND TARGETS

Targets overview

We have a clear ambition to decarbonize our fleet and operations as approved in our sustainability strategy in 2022. We will have a strong focus on improving the carbon efficiency in our operations as we allow the technology and fuel availability risks to become more manageable.

	2022	2025	2030	2050
Carbon intensity (CO2e per operational day)	20.3 mt CO2e per operational day (12% below 2008 benchmark	3% annual reduction in carbon intensity for period 2023-2025	50% reduction in carbon intensity vs 2008	
Absolute carbon emission (fleet)	85,400 mt CO2e		Start fleet renewal with carbon-neutral vessels before 2030	Achieve net-zero emission operations by 2050

Carbon intensity

REDUCE EMISSIONS

-3% annual reduction in carbon intensity for period 2023-2025

-50% reduction in carbon intensity in 2030 vs 2008

YEAR	CO2e PER OP. DAY
2008	23.2
2019	18.1
2020	19.4
2021	19.2
2022	20.3
2025	**18.6**
2030	**11.6**

Absolute carbon emissions

Start fleet renewal with carbon-neutral vessels before 2030.

Achieve net-zero emission operations by 2050.

Performance 2022

The 2022 carbon intensity indicators increased compared to 2021 due to a recovery in higher higher activity in the fleet. With a new sustainability strategy approved in 2022 and a new focus on decarbonization targets, we expect to see positive results in emission reduction in 2023.results from 2023.results from 2023.

Scope 1, 2 and 3 emissions

In addition to direct emissions (scope 1) from the vessels, Havila Shipping has scope 2 emissions related to shore power used by some of the vessels. Scope 3 emissions have been estimated based on expense and emission factors linked to industries and regions. Emissions from two diesel cars have not been included.

Scope 1 and 2 emissions are reported for vessels under the financial control of Havila Shipping ASA with reference to GHG Protocol - A Corporate Accounting and Reporting Standard.

The external sources used as a basis for the calculations in CO2 accounting are: Association of Issuing Bodies (AIB), Department for Environment, Food & Rural Affairs (UK), Exiobase 3.8.2.

GHG / TON CO2E	2020	2021	2022	ANNUAL CHANGE
SCOPE 1				
Combustion of fossil fuels on vessels				
Marine gasoil	76,976	77,031	85,400	
Scope 1 total	**76,976**	**77,031**	**85,400**	**10.9%**
SCOPE 2 / MARKET BASED METHOD				
Electricity location-based Norway	7.65	9.34	9.37	
Electricity market-based Norway	690	843	845	
Scope 2 Total (market-based)	**690**	**843**	**845**	**0.2 %**
SCOPE 3				
Purchased goods and services	9,971	8,335	5,823	
Fuel-and-energy-related activities	3,037	4,684	4,755	
Upstream transportation and distribution	751	2,447	2,024	
Waste generated in operations	16	26	21	
Business travel	644	815	960	
Capital goods	1,970	1,868	2,049	
Total scope 3	**16,389**	**18,175**	**15,632**	**-14.0 %**

Reporting and transparency

Havila Shipping reports on a quarterly basis the following GHG emission indicators to its board of directors. The indicators are subject to change if we modify the scope of reporting.

INDICATOR	2020	2021	2022	BENCHMARK 2008	TARGET 2025	TARGET 2030
Fleet CO2e emissions (tons)	76,976	77,031	85,400			
Fleet op. days	3965	4019	4198			
FLEET CI	**19.4**	**19.2**	**20.3**	**23.2**	**18.6**	**11.6**

Carbon Intensity (CI) = Tons CO2e per operational day

CI by type of vessel

	2020	2021	2022
PSV	14.4	14.1	13.6
SUBSEA	22.3	26.1	29.3
AHTS	29.7	25.2	28.7

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