

HAVILA SHIPPING

GREENHOUSE GAS ACCOUNTING REPORT 2022



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This is the 2022 Greenhouse Gas Accounting Report for Havila Shipping on a consolidated basis. The report includes Scope 1, Scope 2 and Scope 3 emissions and is reported with reference to the GHG Protocol Corporate Standard and the GHG Protocol Scope 3 Standard. The reporting considers the following greenhouse gases, all converted into CO₂-equivalents: CO₂, CH₄ (methane), N₂O, SF₆, HFCs, PFCs and NF₃.

For corporate reporting, two distinct approaches can be used to consolidate GHG emissions: The equity share approach and the control approach. The control approach can be defined in either financial or operational terms. Havila Shipping uses the financial control approach, which includes emissions from Havila Shipping's owned fleet of vessels.

The report includes consolidated data from the parent company, Havila Shipping ASA, including subsidiaries controlled by it. Data is collected per vessel. GHG emissions are calculated using emission factors described in Annex I. For scope 3 emissions, we consider an expenditure-based approach. The three scopes of direct and indirect emissions include the following:

Scope 1 includes all direct GHG emission sources. Nearly 100 % of Scope 1 emissions come from the combustion of fossil fuels on Havila Shipping's vessels. This includes twelve financially controlled vessels, of which one is 50% owned by the company and this is reflected in the amount of CO₂ accounted for. We have excluded two diesel cars which do not represent a significant share of the scope 1.

Scope 2 emissions are indirect GHG emissions associated with the purchase of electricity, steam, heat, or cooling. Under the financial control approach, this would exclude the operating lease of office space. Therefore, only shore power to vessels is included in scope 2. Both location-based and market-based scope 2 emissions are presented in the table. The location-based method reflects the average emission intensity of the grids on which energy consumption occurs, while the market-based method reflects emissions from the electricity that companies have purposefully chosen (or not chosen).

Scope 3 includes indirect emissions resulting from emissions created in the value chain both upstream and downstream of Havila Shipping's activities, but that are not controlled by the company. The GHG Protocol has divided scope 3 emissions into 15 categories. Five categories have been evaluated as relevant to Havila Shipping. For an overview of all emissions categories and Havila Shipping's evaluation, see Annex II.

Purchased goods and services (Category 1): CO₂ emissions related to equipment and services provided to Havila Shipping. The emissions are estimated based on spending on each supplier and their associated sector and country emission factors from Exiobase 3.8.2

Capital goods (Category 2): This category includes all upstream (i.e., cradle-to-gate) emissions from the production of capital goods purchased or acquired by the reporting company in the reporting year. Emissions from the use of capital goods by the reporting company are accounted for in either scope 1 (e.g., for fuel use) or scope 2 (e.g., for electricity use), rather than in scope 3.

Fuel-and-energy-related activities not included in scope 1 and 2 (Category 3): The calculation excludes the reported fuel consumption in scope 1 and fleet electricity consumption in scope 2 and includes emissions related to the production, refining, and transportation of fuels that are consumed by the vessels.

Upstream transportation and distribution (Category 4): Third-party transportation and distribution services purchased by the reporting company in the reporting year, including inbound logistics, outbound logistics, and third-party transportation and distribution between a company's own facilities.

Waste generated in operations (Category 5): GHG emissions related to the disposal, recycling, and incineration of various types of garbage onboard vessels.

Business travel (Category 6): The CO₂ emissions for business travel are mostly related to our crew.





Greenhouse gas (GHG) emissions

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	
	Capital goods	1,970	1,868	2,049	
	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	
	TOTAL SCOPE 3	16,389	18,175	15,632	-14.0 %

Havila Shipping's transactional data for 2020-2022 was matched to Exiobase emission factors using the Ignite Procurement carbon accounting module and grouped into the different scope 3 categories according to the Greenhouse Gas Protocol. Categories 1 (purchased goods and services), 2 (capital goods), 3 (fuel-and-energy-related activities), 4 (upstream transportation and distribution), 5 (waste), and 6 (business travel) were all covered using this method. Taxes and internal transactions were filtered out completely. The mapping to Exiobase emission categories (both goods and services) was mainly conducted using the supplier industry information. Corrections were conducted on some of the top

50 suppliers to make sure they were matches as correctly as possible. Likewise, supplier country was used to map to the Exiobase regions, and transaction year with the years in Exiobase. Where no match was found using the supplier information available, transactions were matched to the regional average weighted by industry sizes, while the region was set to 'rest of world Europe' for transactions without regional information. This accounted for 5.7% and 3.1% of the total transaction values, respectively. Further description of the methodology, as well as the emission factors used, can be found online: <https://github.com/ignite-analytics/carbon-accounting>



Annex I - Carbon conversion factors and sources

The key external sources used as a basis for the calculations in this report are:

- Association of Issuing Bodies (AIB)
- Department for Environment, Food & Rural Affairs (UK)
- Exiobase 3.8.2

FROM	TO	FACTOR	SOURCE
CONVERSION FACTORS SCOPE 1			
t MDO/MGO	tCO ₂ e	3.24999	DEFRA 2021
CONVERSION FACTORS SCOPE 2			
Electricity location-based Norway	gCO ₂ e	4.49	Association of Issuing Bodies (2021)
Electricity market-based Norway	gCO ₂ e	404.91	Association of Issuing Bodies (2020)
CONVERSION FACTORS SCOPE 3			
NOK	gCO ₂ e		Exiobase 3.8.2

Annex II - Scope 3 emissions categories

☑ YES
☒ NO

	CATEGORY	RELEVANT	CALCULATED	COMMENTS
1	Purchased goods and services	☑	☑	Estimated
2	Capital goods	☑	☑	Estimated
3	Fuel-and-energy-related activities (not included in Scope 1 or 2)	☑	☑	Estimated
4	Upstream transportation and distribution	☑	☑	Estimated
5	Waste generated in operations	☑	☑	Estimated
6	Business travel	☑	☑	Estimated
7	Employee commuting	☒	☒	Considered immaterial
8	Upstream leased assets	☒	☒	No leased assets
9	Downstream transportation and distribution	☒	☒	No sold product, only services
10	Processing of sold products	☒	☒	No sold product, only services
11	Use of sold products	☒	☒	No sold product, only services
12	End of life treatment of sold products	☒	☒	No sold product, only services
13	Downstream leased assets	☒	☒	No leased assets
14	Franchises	☒	☒	No franchises
15	Investments	☒	☒	Not a financial institution

CONTACT INFO



HAVILA SHIPPING

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