Precious Shipping Public Company Limited

2022 TCFD

Task Force on Climate-related Finance Disclosures Report

About the report

The shipping industry plays a crucial role in promoting economic growth and developing nations. However, its impact on global climate change cannot be overlooked, as over 90 percent of world trade is carried out through more than 80,000 marine vessels, making it a major source of emissions. Given its massive scale, the industry significantly contributes to the world's total greenhouse gas emissions.

PSL acknowledges that climate change is a matter of concern for our investors and stakeholders, and we are committed to ensuring sustainability by addressing this issue. To this end, we present this report outlining our risk management approach and future plans for addressing climate change. We have adopted the TCFD framework to identify potential risks and opportunities associated with climate change and will strive to improve our disclosure standards in the future. The TCFD framework helps us assess our progress in each of the four pillars: Governance, Strategy, Risk Management, and Metrics and Targets.

Core Elements of Recommended Climate-Related Financial Disclosures

Governance	Strategy	Risk Management	Metrics & Targets
			
The organisation's governance around climate related risks and opportunities.	The actual and potential impacts of climate related risks and opportunities only organization's business, strategy, and financial planning.	The processes used by the organization to identify, assess, and manage climate related risks.	The metrics and targets used to assess and manage relevant climate related risks and opportunities.
PSL's governance structure ensures that its operations are in line with best practices to minimize our environmental impact.	To create long term value for all our stakeholders by becoming future ready.	We believe that by incorporating climate risk into our risk management approach, we can better prepare for and minimize the impact of climate change.	PSL has specific emission reduction targets in line with IMO's goal to reduce overall greenhouse gas emission by 50% from 2008 levels by 2050.

Our Vision

To be the most distinguished shipping company in the world, providing an exemplary level of services and solutions to facilitate global trade.

Our Core Values

Integrity – Conduct business ethically and transparently, taking accountability of our actions.

Sustainability – Continue and improve our efforts to care for both communities and the environment by adopting sustainable business practices.

Tradition – Fostering a culture of growth and sustainability by supporting an open and transparent working environment across the organization.

Innovation – Promoting a culture of innovation to build business resilience and drive growth.

GOVERNANCE

Hierarchy of climate governance at PSL

As part of our ESG strategy to combat climate change and ESG issues, the board takes overall responsibility and ensures that its committees oversee how the Company is addressing climate change and environmental concerns, while the senior management along with our internal ESG working group assess and manage key climate risks and opportunities.

The Board of Directors oversees the Company's response to climate change, including our strategy and action plan to minimise environmental impact. As part of its responsibilities, the Board ensures that climate factors are considered in financial planning, decision making, and for short and long-term strategies.

BOARD OF DIRECTORS

The Audit and Corporate Governance committee is responsible for reviewing climate related-risk and ensuring their integration into financial disclosures.

AUDIT AND CORPORATE GOVERNANCE COMMITTEE

The Sustainability and Risk Management Committee is responsible for reviewing and assessing the organization's exposure to climate-related risks and opportunities, including physical and transition risks, as well as monitoring the implementing strategies to manage, mitigate, and capitalize on these risks and opportunities.

SUSTAINABILITY AND RISK MANAGEMENT COMMITTEE

The senior management team oversees the overall approach to identifying and evaluating the risks and opportunities of climate change.

SENIOR MANAGEMENT TEAM

The ESG working group is responsible for implementing the action plan. The ESG working group comprises of representatives from each department. The ESG working group assists the management to assess the Company's ESG practices and compliance with the Company's action plan.

ESG GROUP

The Board of Directors

The Board of Directors ("the Board"), through the Sustainability and Risk Management Committee, fosters sound risk management oversight and effective corporate governance to ensure the Company creates sustainable long-term value for stakeholders. The Board has oversight across the Company's Environmental, Social and Governance (ESG) risks, opportunities, and policies, including those pertaining to climate change and to support management in achieving strategy and business objectives. ESG strategies and issues are discussed with the Board of Directors annually and more frequently as needed. PSL's board considers climate-related issues when reviewing the Company's risk management policies.

The Audit and Corporate Governance Committee

The Audit and Corporate Governance Committee is tasked with reviewing climate-related risks and integrating them into financial disclosures. One of its primary functions is to ensure that the financial statements accurately reflect the impact of climate change in a comprehensive, equitable, and unbiased manner. Although the Board of Directors is responsible for the company's general direction, the Audit and Corporate Governance Committee has a specific mandate to oversee the financial reporting process.

ESG Working Group

An internal ESG working group, which is comprised of representatives from each department, has been established to assist management in addressing ESG challenges and facilitate the execution of ESG initiatives across the organisation.

The Sustainability and Risk Management Committee

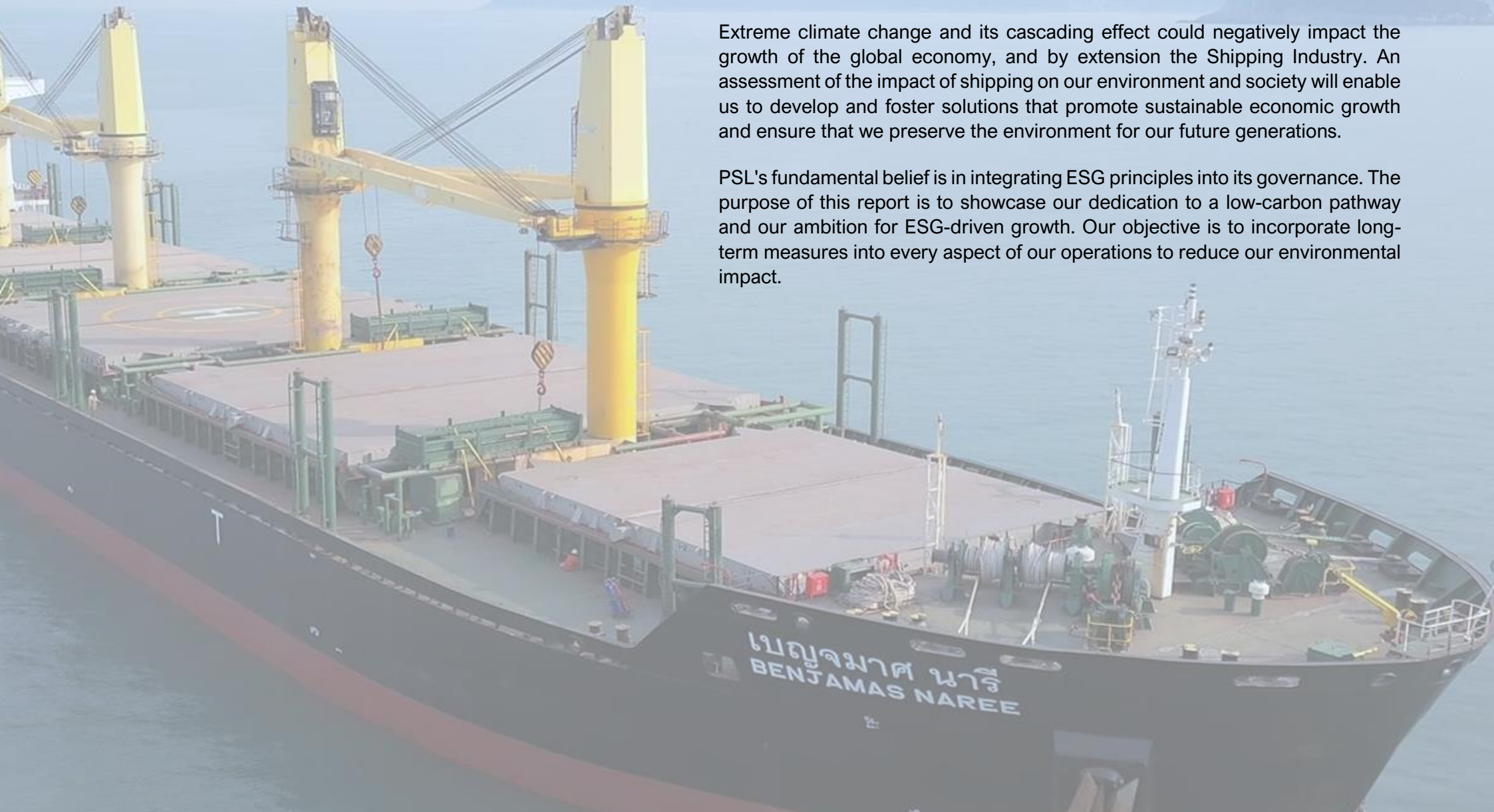
The primary responsibility of the Sustainability and Risk Management Committee is to identify and continuously monitor business risks while ensuring effective mitigation measures are in place. Additionally, the Committee oversees the implementation of controls and strategies related to climate issues that may affect the Company and its stakeholders. The goal is to elevate all climate change-related risks and opportunities at the Board level, ensuring their proper management.

Senior Management Team

The Managing Director is a member of the Sustainability and Risk management Committee and is responsible for monitoring the Company's risks in all areas. The responsibility of climate management is entrusted to the Director (Technical), who ensures that energy efficiency and CO2 reduction measures are evaluated throughout the operation. The Director (Technical) is responsible for all the vessel operations, including the implementation of measures to improve operational performance, while the Director (Finance) is responsible for monitoring the expectations of external stakeholders and recommends strategies to address climate change that meets these expectations and reports the results thereof to the Managing Director and the Sustainability and Risk Management Committee.

Future-ready Shipping

The shipping industry plays a vital role in the growth and development of any economy due to its cost-effectiveness and efficiency. However, it is important to note that this industry has a significant environmental impact, contributing to around 2.5-3% of global carbon dioxide emissions. As climate change remains one of the major long-term risks that demand our full attention, we must prioritize finding sustainable solutions to reduce the shipping industry's impact on the environment.



Extreme climate change and its cascading effect could negatively impact the growth of the global economy, and by extension the Shipping Industry. An assessment of the impact of shipping on our environment and society will enable us to develop and foster solutions that promote sustainable economic growth and ensure that we preserve the environment for our future generations.

PSL's fundamental belief is in integrating ESG principles into its governance. The purpose of this report is to showcase our dedication to a low-carbon pathway and our ambition for ESG-driven growth. Our objective is to incorporate long-term measures into every aspect of our operations to reduce our environmental impact.

Identification of Climate Risks & Opportunities

Acute

- Risk associated with extreme climate events.

Chronic

- Risk of long term shifts in climate due to climate change.

Policy & Legal

- Risk of more stringent requirements and carbon pricing mechanisms.

Technology

- Risk associated with new technologies and their commercial viability and success.

Reputation

- Inability to meet expectations can result in loss of reputation and confidence in the Company.

Market

- Risk posed by changes in market conditions and commercial viability of green vessels.

Risks and Opportunities			Potential Impact on the Company	Strategy & Risk Management
Transition Risk	**Policies, Laws & regulations**	• Meeting new carbon and climate related regulations aimed at limiting or reducing GHG emissions. • More complex and stringent regulations. (Medium & long term: 5-20 years)	• Increased costs from complying with complex and newly evolving regulations. • Increased costs from operating low carbon ships and an inability to pass on these costs to end users. • Surge in carbon prices. • Impact ability to charter vessels due to poor environmental ratings.	• Participating in programs to reduce fuel consumption. • Investing in fuel saving devices • Integrating carbon pricing into operations and strategic decisions. • Incorporating climate change and ESG consideration into Governance.
	Technology	• Commercial Viability of Green Vessels and transition to zero emission fuels (Long Term: more than 10 years) • Use of energy efficient fuel saving devices and retrofits (Medium-Term: 5-10 years)	• Increased capital expenditure. • Increased operating cost.	• Endeavor to explore and invest in new technologies to continue improvement in emission-related performance. • Highly experienced technical team to identify and implement new technologies and top emerging trends. • Committed to continuous advancement and automation of operations to ensure the highest level of operational efficiency. • Balancing risk and rewards.
	Market	• Increased operational concerns. (Long-Term: 5-10 years)	• Adverse impact on earning and valuation of older ships which have higher consumption.	• Tracking the Company's carbon emissions. • Setting internal targets to minimize environmental Impact. • Investing in commercially viable carbon-neutral ships.
		• Cost of borrowings	• Environmental performance may impact our ability to obtain green financing and we may have to obtain funds at less completive rates than others.	• We will continue strengthening our efforts to improve our environmental performance. • We strive to raise green financing or sustainability-linked loans by incorporating ESG principles into our financing activities. In 2021, we signed a USD 85m sustainable financing facility with International Finance Corporation (IFC).
	Reputation	• Stakeholders' Concern – Delay in Zero-emission fleet. • Failure to meet reduction targets. (Medium Term: 5-10 years)	• Impact on the Company's operations and market share.	• Work on the development of low-carbon ships. • Participate in industry programs such as the Getting to Zero coalition to explore commercially viable options.

Risks and Opportunities			Potential Impact on the Company	Strategy & Risk Management
Physical Risks	**Acute**	• Increased frequency and severity of weather events. (Medium Term: 5-10 years)	• Damage to people, assets, and environment. • Increase in costs due to unexpected re-routing of ships.	• Integrating weather conditions and climatic changes in our operational strategy. • Using shipping data to track weather patterns and events.
	Chronic	• Sea level rise and Long-term changes in climate patterns could result in new storm patterns. (Long Term: more than 10 years)	• Increase in costs due to mitigating and potential operating expenses including legal and insurance.	

Identification of Climate Opportunities

Opportunities	**Services/ Market**	• Alternative fuel powered or zero-emission vessels	• Increased demand for low carbon vessels. • Leading position in the industry in adoption of commercially viable zero-emission ships. • Reduction in carbon footprint.	• Collaboration with industry associations to explore the use of commercially viable zero/low emission fuels.

Key Risks

Decarbonization Challenge and Increased Regulations (Medium/Long Term)

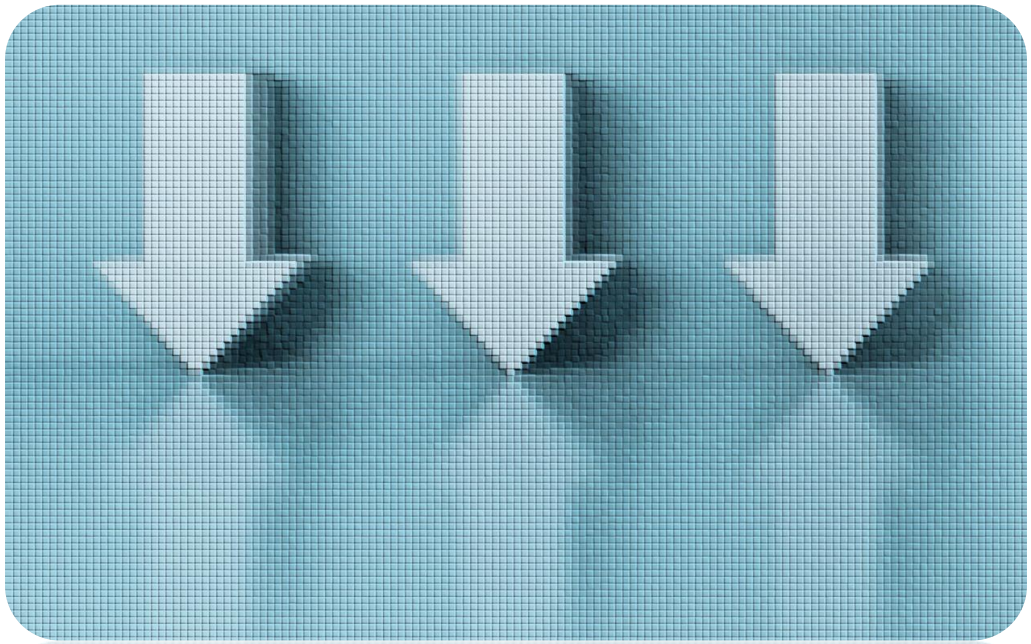
About the risk

As the global shipping industry faces pressure to decarbonize, environmental regulations are expected to become more extensive and stringent worldwide. These regulations may shorten the lifespan of our current vessels or render them useless, forcing shipping companies to either pay high premiums for new buildings or invest in costly retrofits for existing vessels. Consequently, the Company's operations may be impacted, and the cost of new buildings could rise.

The Company may need to make significant capital investments to purchase new eco-friendly vessels or retrofit existing ones to comply with the new requirements. Additionally, the Company faces the risk of disruptive technologies quickly making its vessels redundant during the early stages of their economic life, given the rapid pace of technological advancements.

The industry faces significant uncertainty about future propulsion technology and fuels. Zero-emission vessel production and availability are still in their infancy, and there is a risk that the Company may not be able to modernize its fleet quickly enough. As a result, the Company's existing vessels' demand and profitability could be adversely affected.

The introduction of a punitive carbon taxation policy in Europe through the EU ETS scheme will require companies to pay a price for each ton of carbon emissions released when calling ports in Europe. This will accentuate the disadvantage that older high consumption vessels face in the market, adversely impacting their earnings potential.



Financial Impact

This could result in increased capital expenditures on new vessels and modifications. Moreover, it could increase our regulatory and compliance costs to meet new requirements. The Company's profitability and operating costs could be negatively affected if we fail to rejuvenate our existing fleet with new zero-emission vessels in a timely manner. In addition, this could also negatively impact our competitive advantage.

Mitigation

At PSL, we continuously monitor such regulatory trends and their potential impact on the business. The company's technical department has been assigned the responsibility to closely monitor such regulatory trends to keep pace with the changing environment.

Furthermore, we plan to improve the fuel efficiency of our fleet by replacing our older high fuel consumption ships with younger more fuel-efficient vessels. Looking further ahead, we will adopt zero emission vessels once their technical and commercial viability is proven.

The Company has a multi-pronged strategy to reduce its environmental footprint in line with the IMO targets without impacting our core strengths. The company plans to replace its older vessels with younger eco vessels in the coming years. In 2022, the Company purchased two second-hand Handysize bulk carriers as part of its strategy to have a younger and more fuel-efficient fleet. Having a high-quality fleet is vital to meeting the needs of our clients and so the Company constantly looks for opportunities to strategically expand its fleet and make it more fuel efficient. In addition, the Company strives to implement the latest technological advancements and the industry's best practices in its operations to compete effectively with its peers. Moreover, the Company may consider offsetting part of the emissions from its fleet through the purchase of carbon offsets, as an interim measure until commercially viable zero emission vessels hit the market.

RISK MANAGEMENT

Risk management is an integral part of our operations. All business risks and climate risks are presented to the board of directors. The status and impact such risk are discussed at evaluated at committee meetings. A key strategy adopted by the Company to manage climate risk is through internal KPIs and targets.

Risk identification is based on likelihood of occurrence and potential impacts. Based on the selected risks and opportunities, strategies are formulated from a medium- to long-term perspective and are discussed more deeply at the Committee meetings.

Climate-related risks

We conducted a scenario analysis to identify significant climate-related risks and related control and mitigation activities. Based on the TCFD recommendations and IPCC Representative Concentration Pathways (RCPs), we considered three different scenarios across three different time horizons (Short, Medium and Long Term).

RCP 8.5 Scenario – As likely as not to exceed 4 degrees.

This high-emissions scenario is frequently referred to as “business as usual”. This scenario is expected to result in warming of between 2.6 to 4.8 degrees Celsius by 2100.

RCP 4.5 Scenario - Likely to exceed 2 degrees.

This stabilizing scenario assumes strong mitigation actions to reduce emissions to half of current levels by 2080. This scenario is likely to result in warming of between 1.8 and 2.9 degrees Celsius by 2100.

IEA SDS2

This stand for the International Energy Agency's (IEA) Sustainable Development Scenario 2. It is a scenario developed by the IEA to explore a pathway towards a sustainable and low-carbon energy system, in line with the goals of the Paris Agreement to limit global warming to well below 2 degrees Celsius and pursue efforts to limit it to 1.5 degrees Celsius above pre-industrial levels.

Scenarios		
	IEA SDS2	**RCP 8.5/4.5**
	Transition Risks	**Physical Risks**
Risk	• Increase in costs due to more stringent regulations and requirements. • Rapid decarbonisation around the world will reduce demand for cargoes like coal.	• Adverse climate changes could negatively impact agricultural productivity, affecting the availability and supply of Agri-cargoes around the world. This could impact the demand for our ships. • Operational disruptions caused by extreme weather events such as floods or typhoons. • Adverse climate changes and rise in sea levels could impact shipping routes causing unplanned re-routing. • Frequency of weather events and natural disasters could cause damage to our people, property or assets and could negatively impact our business.

Opportunities

- Opportunity to become a player in new energy transportation and supply that supports decarbonization and carbon neutrality.
- Adoption of alternative fuels powered vessels, or zero emission vessels will allow the Company to competitive advantage for European trades.
- Green credentials will enable the Company to attract low-cost funding, as well as ESG focused investors.
- Several ports intend to offer concessional tariffs for zero-emission vessels, and this will allow the company to lower its overall operating cost.

METRICS AND TARGETS

The majority of our GHG emissions come from the heavy fuel used in running vessels.

The Company is working to reduce environmental impact in line with its medium and long-term targets. To continue improvement in emission related performance and reduce its carbon footprint, PSL has specific emission reduction targets in line with IMO's goal to reduce overall greenhouse gas emissions by 50% from 2008 levels by 2050.

The average carbon intensity per transport, measured in Grams CO2 emitted per Tonne-Nautical Mile was 12.884 gm CO2 in 2014. Over the years this has improved and the figure for 2022 is 7.14 gm of CO2 per tonne-mile which equates to a reduction of 44.6%. We have made a substantial reduction in our carbon footprint, and this is expected to improve further through optimization measures like shorter ballast passages and port stays, larger cargo hauls and slower steaming.

TABLE 1: ENERGY USE

Energy Use [GJ]	2021	2022
Heavy Oil	6,259,806	5,814,816
Marine Gas Oil	700,877	890,957
Total Energy Consumed	6,960,683	6,705,773

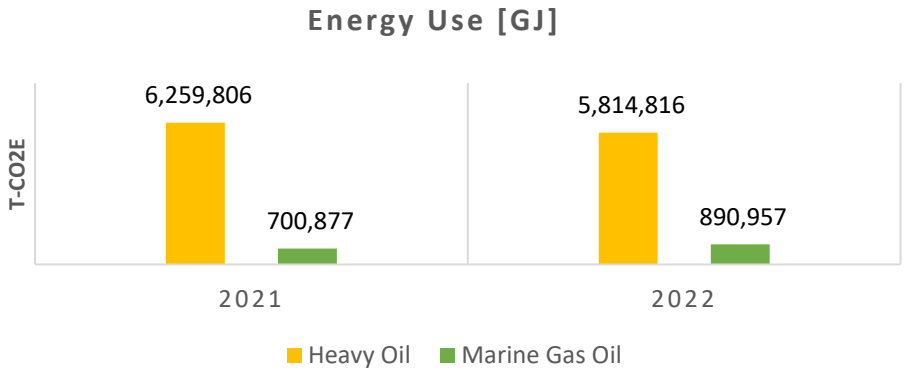


TABLE 2: SCOPE 1 EMISSIONS FROM VESSELS BY VOYAGE CHARTERS

Scope 1 emissions (MTCO2-e)	2021	2022
CO_2	48,587	5,290
CH_4	134	14
N_2O	338	37
Total Scope 1 Emissions	49,059	5,341

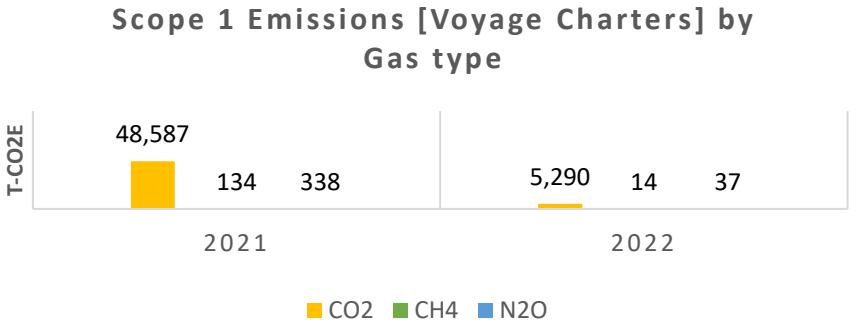


TABLE 3: SCOPE 1 EMISSIONS FROM VESSELS BY THE COMPANY'S VEHICLES

Scope 1 emissions (MTCO2-e)	2021	2022
CO_2	14.72	24.73
CH_4	0.20	0.34
N_2O	0.18	0.30
Total Scope 1 Emissions	15.10	25.37

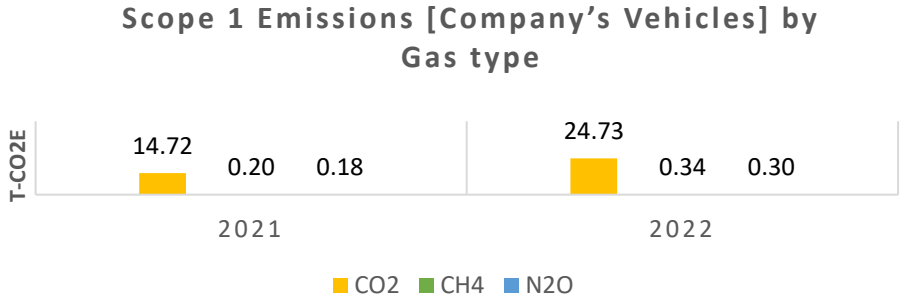


TABLE 4: SCOPE 1 EMISSIONS FROM VESSELS BY THE REFRIGERANT ON BOARD) *

Scope 1 emissions (MTCO2-e)	2021	2022
Total Scope 1 Emissions	-	5,661

* *Starting to report of refrigerant on board in 2022*

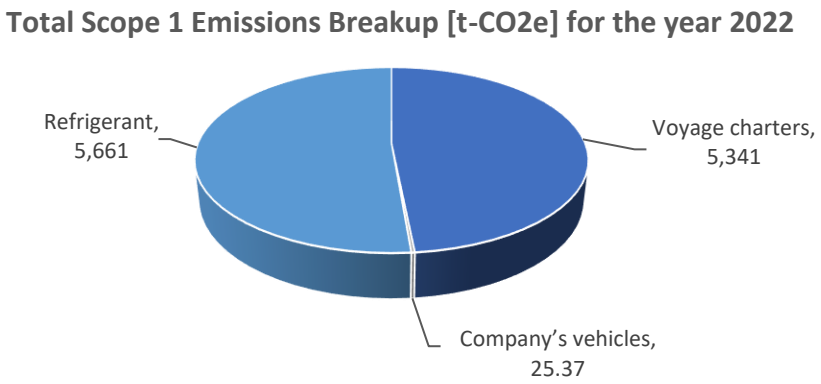


TABLE 5: SCOPE 2 EMISSIONS BY PURCHASED ELECTRICITY – ONSHORE OPERATIONS

Scope 2 emissions (MTCO2-e)	2021	2022
Total Scope 2 Emissions	64	68

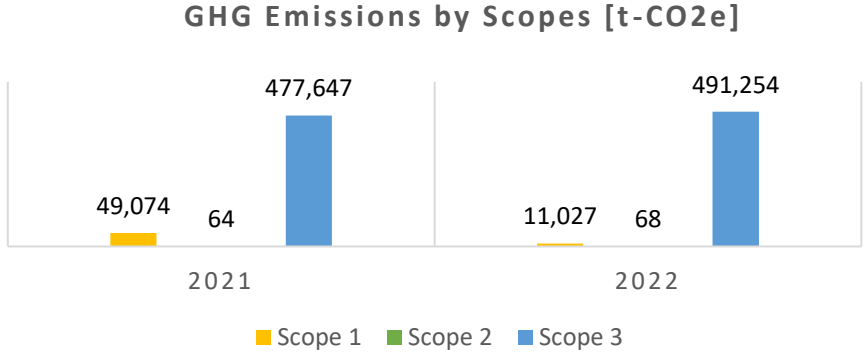
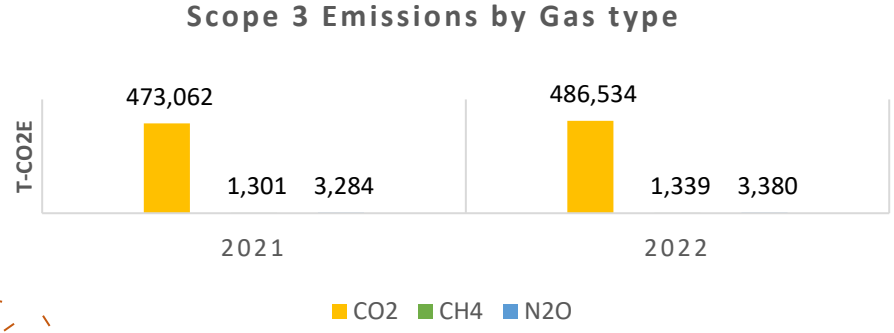


TABLE 6: SCOPE 3 EMISSIONS FROM VESSELS BY TIME CHARTERS

Scope 3 emissions (MTCO2-e)	2021	2022
CO_2	473,062	486,534
CH_4	1,301	1,339
N_2O	3,284	3,380



Targets

The Company is working to reduce its environmental impact in line with its medium and long-term targets. To continue improvement in emission related performance and reduce its carbon footprint, PSL has specific emission reduction targets in line with IMO's goal to reduce overall greenhouse gas emission by 50% from 2008 levels by 2050.

The average Carbon Intensity Index (CII) for the year 2022 was 7.14 grams per tonne per nautical mile. By 2026 we aim to reduce the CII by 11% compared to the baseline year of 2019

By 2026

Reduced CII level by 11%

(Baseline 2019)

By 2050

Reduced emissions from our fleet by 50%

(Baseline 2008)

Precious Shipping Public Company Limited

No. 8, North Sathorn Road, G, 7th, 8th, and 9th floors, Silom, Bangrak, Bangkok 10500 Thailand

Tel : 66-2 696-8800, 66-2 696-8854 Fax : 66-2 236-7654, 66-2 633-8460

Email : ir@preciousshipping.com

Home page : http://www.preciousshipping.com