# THE ROLE OF CORPORATE SOCIAL RESPONSIBILITY (CSR) IN THE INTERNATIONAL SHIPPING SECTOR

## A Phase 2 Research Paper

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## Acknowledgements

## Executive Summary

The maritime shipping sector is facing growing social and environmental regulations and advocacy pressures that are transforming technologies and shifting business practices. The emerging sustainability compliance landscape includes both public regulation and private voluntary initiatives.

The objective of this research is to improve understanding of the implications of the rise of voluntary corporate social responsibility (CSR) collaborations and initiatives in the shipping industry, both in terms of the issues addressed by these initiatives and the interaction between voluntary and regulatory mechanisms aimed at improving social and environmental performance. A further objective is to receive industry feedback on a draft CSR Framework for the international shipping industry as a guide to companies and industry associations interested in engaging in CSR activities.

Managing sustainability pressures is an increasingly critical strategic challenge for ensuring growth and value across all business sectors. The shipping industry faces new demands for greater transparency and accountability on issues such as global climate change, energy efficiency, waste management, worker safety, security, ocean and coastal health, and local community impacts and benefits. Given its global nature, the international shipping sector also faces unique challenges in managing its sustainability risks and performance. These challenges include a high level of fragmentation within the industry itself, and a frequent lack of coordination in regulations within and across international, regional, and national policy levels.

The rise of voluntary CSR collaborations, initiatives and standards is resulting in an even more hybridized regulatory regime. However, the emergence of CSR activities in the shipping sector is also presenting opportunities to access benefits provided by new practices and strategies. These can include reduced business transaction costs, improvements in efficiency and risk management, attraction and retention of employees, access to new capital and markets, and enhanced brand reputation.

This research further considers current and emerging social and environmental impacts and opportunities for the shipping sector as increasingly identified and included in CSR frameworks and green rating schemes being adopted by companies, customers, investors and other stakeholders. Shipping industry representatives were asked, in particular, for feedback and advice on the draft CSR framework for their sector.

Based on an evaluation of the coverage and interaction between public regulation and voluntary initiatives on sustainability issues in the broader maritime sector, together with interviews with shipping industry representatives, this report provides an overview of current CSR activity in the sector, a review of industry perceptions of CSR, and an examination of the role CSR could play in addressing new competitive challenges in the shipping sector.

The following seven key findings are identified:

1. There is a need for more proactive management to deal with increased complexity in both public regulation and private self-regulation through voluntary measures and standards.

2. There is a need for more collaboration to maintain business value and competitiveness.

3. Failure to achieve an optimum level of convergence and coherence will lead to greater confusion, inefficiency and disparity in performance across the sector.

4. The CSR framework developed through this research is comprehensive and valuable.

5. Common CSR metrics and systems are desirable.

6. Guidance on stakeholder engagement is worthwhile.

7. There is a need for better understanding of emerging CSR priorities among shipping industry customers and investors.

In order to better position the maritime sector to anticipate sustainability pressures, and the attendant risk exposure, the following three actions are recommended.

1. Establish a global Centre of Excellence on CSR in Shipping through collaboration between industry and all associated stakeholders, including relevant international organizations, such as the IMO. The Centre of Excellence could provide a network for connecting industry, government and academics as well as customers and investors on CSR issues and opportunities. This institutional arrangement could also function as a research and capacity building hub, coordinating and disseminating information that advances both theory and practice.

2. Utilizing the CSR framework developed through this research, develop a core guide or toolkit for CSR implementation that includes performance metrics and best practice in stakeholder engagement.

3. Develop a global portfolio of pilot projects that test the business case for CSR in shipping. Disseminate information regarding each project or case study while systematically identifying key steps to building different models for CSR in the shipping sector that can be relevant to different components of the industry but particularly to small-to-medium sized enterprises (SMEs).

# Section 1 – Introduction

## 1.1 Phase 1 Research: 2012 Global Perspective

In early 2012, the Nippon Foundation (NF)[1] and the Liu Institute for Global Issues at the University of British Columbia (UBC)[2] collaborated on a review of global trends in corporate social responsibility (CSR) and their relevance to the international shipping industry. This review confirmed that in recent years there has been an increase in voluntary collaborations and initiatives in the shipping sector aimed at addressing social, environmental and governance issues. This preliminary research suggested an increase in commitments to specific sustainability goals by companies such as Wal-Mart, which operate major global supply chains, was a factor in CSR uptake in the shipping sector. The Phase 1 research also found that use of CSR principles and practices in the shipping industry was variable, with some large companies having highly developed programs and strategies while small-to-medium sized companies or enterprises (SMEs) face barriers to participating in, and accessing benefits from, CSR activities[3].

Informed by emerging trends in CSR practice in the shipping sector, the Phase 1 research put forward a consolidated summary of key components in a high level CSR framework that could be used to assist shipping industry associations and companies interested in further integrating CSR principles and business strategies into their operations.[4] The Phase 1 research also concluded that shipping industry associations could play an important role in addressing barriers to development of sustainable business models that will enable their SME members to take advantage of continued growth in 'global business'.

A stakeholder consultation on the Phase 1 findings held at the University of British Columbia in late 2012 recommended that: (1) a comparison be conducted between the elements in the Phase 1 draft CSR Framework tool and relevant international regulatory requirements in the shipping sector to determine where voluntary collaborations and regulatory initiatives converge and diverge, and (2) feedback from industry representatives be obtained on the role of CSR in the shipping sector and a framework for advancing its development.[5]

## 1.2 Phase 2 Research: 2013 Comparative Analysis and Interviews

In mid-2013, the Nippon Foundation and the Liu Institute initiated a second phase of research on the role of CSR in the shipping industry. The Phase 2 research focused on development of a matrix analysis to identify gaps and convergences in voluntary and regulatory initiatives on social, environmental and governance issues in the maritime sector. Interviews were conducted to obtain feedback from shipping industry representatives on the CSR framework developed in Phase 1. Industry interviewees were also asked to comment on what role, if any, CSR could play in advancing improved coordination and outcomes between private and public sector activities on sustainable development issues within the shipping sector.[6]

Key findings and recommendations from the Phase 2 research are summarized in this report, and will be presented at the Symposium for shipping industry representatives to be held in November 2013 in Copenhagen. [7] At the 2012 United Nations Conference on Sustainable Development ('Rio+20') the International Maritime Organization (IMO) committed to engaging shipping industry partners and stakeholders on the development of a unifying vision for sustainable maritime development. The IMO vision seeks to address the social, economic and environmental aspects of sustainable shipping and consider the contribution

made by improvements such as technological innovation and capacity building, maritime traffic management, and maritime infrastructure and security. [8] A purpose of the 2013 Symposium in Copenhagen is to help advance these goals by further evaluating and assessing the role CSR can play in supporting progress on sustainable maritime development.

## 1.3 Phase 2 Research: Objectives and Methodology

This research was conducted to identify the current state of CSR activities in the shipping industry as a basis for providing insight into future trends and opportunities. A second goal was to provide information that can help advance the shipping industry's engagement in CSR activities as a strategy for contributing to the future sustainability of the global marine environment. Specific objectives were to:

- assess the nature and implications of voluntary corporate social responsibility (CSR) collaborative initiatives on business practices within the global shipping sector;

- enhance and improve a draft CSR Framework for the shipping industry based on industry feedback.

The Phase 2 research was undertaken over a 6-month period from April to September, 2013. A description of the methodology employed is provided below.

1) A literature review was conducted on sustainability regulation and voluntary CSR collaborations and initiatives in the global shipping sector.

Data collection involved a review of the primary and secondary literature on sustainability regulation and voluntary CSR collaborations and initiatives in the international shipping sector. Sources included websites, reports and news releases of companies, industry associations, consultants, research institutes, governments, international agencies, and civil society organizations, as well as newspaper and magazine articles, and peer-reviewed academic publications. Data was recorded and synthesized in a database designed to facilitate an assessment of the breadth and scope of the CSR collaborations and initiatives (as compared to international shipping regulations and the components of the Shipping CSR framework presented in Section 2.0). Drawing on this information, comparative matrices were prepared and an evaluation conducted on the gaps and overlap between the voluntary CSR collaborations and initiatives and the major international shipping regulations.

2) Interviews with shipping industry representatives were conducted for feedback on results from the comparative analysis and the draft CSR Framework.

In order to identify a representative short list of shipping industry stakeholders to interview, shipping industry stakeholders were first mapped (Appendix A) and then prioritized based on those who work within the industry sector, coming up with six industry categories. Following this exercise, participants in the November 2012 stakeholder consultation on Phase 1 findings were consulted for their feedback on the proposed characterization of the industry stakeholders and overall stakeholder map. Interviews were subsequently conducted with nine representatives from six groups representing the industry perspective including: large and medium-sized shipping companies, industry associations, Ports, shipping industry customers, ship builders and voluntary collaborative initiatives on sustainable shipping.

Appendix B provides a list of interviewees by name and organization.

The Phase 2 research focused on 5 main questions:

- How do the leading voluntary CSR collaborations and initiatives address environmental, social, governance and collaborative sustainability concerns? (See Appendix G for descriptions of the concerns addressed by identified CSR initiatives.)

- What are the major gaps and convergences in the issues addressed?

- How do the voluntary CSR initiatives interact with international regulations (e.g., IMO, ILO)?

- To what extent do voluntary CSR collaborations and initiatives complement and/or go beyond international regulatory compliance requirements?

- What social and environmental impacts and opportunities should shipping companies address and manage?

# Section 2 – Comparative Analysis: Gap and Convergence Assessment

This section of the report includes four parts: an overview of the types of voluntary CSR collaborations and initiatives in the shipping sector; major findings from an assessment of the role and purpose of these voluntary initiatives and how they interact with regulation; implications in terms of future trends for the shipping sector; and a summary of feedback from industry interviewees on key findings from the comparative analysis.

## 2.1 CSR Initiatives

Voluntary CSR collaborations and initiatives in the shipping sector can be grouped broadly into three types: ratings schemes; cross-sector governance programs; and practical application initiatives.

The initiatives we assessed within these categories include:

| Practical Application | Cross-Sector Governance | Rating Schemes |
|---|---|---|
| Sustainable Shipping Initiative | World Ocean Council | Clean Shipping Project |
| Clean Cargo Working Group (CCWG)* | | Shippingefficiency.org |
| Green Marine* | | CCWG Green Award |
| World Port Climate Initiative (WPCI)* | | WPCI Green Marine |
| Green Ship of the Future | | |

(*The CCWG, Green Marine and WPCI also have performance rating schemes.)

a. **Practical Application Initiatives:** Identify shipping sustainability challenges and work to develop practical tools and innovative solutions (see Table 2.1).

*Table 2.1 CSR Practical Application Initiatives in Shipping*

| SSI | CCWG | Green Marine | WPCI | Green Ship |
|---|---|---|---|---|
| Developing innovative ways to overcome shipping sustainability challenges and scale them up in the industry. | Industry's largest collaborative effort to improve performance and report environmental data on ships. | Evaluate and encourage shipping industry to adopt best practices in environmental management. (North America) | World ports aiming to improve maritime industry environmental standards. | Encourage environmentally sound ships through technology and innovation. (Danish-led) |

b. **Cross-sector Governance Programs:** Engage sectors beyond the shipping industry in world maritime challenges and global ocean governance issues (see Table 2.2).

*Table 2.2 Cross-sector Maritime Sustainability Governance programs*

| World Ocean Council |
|---|
| The WOC includes shipping industry companies as well as oil and gas, tourism, financial, insurance, pipelines, NGOs and academic institutions with the common goal of science-based "Corporate Ocean Responsibility." |

c. **Ratings Schemes:** Evaluate and award ships that are clean and safe with performance certificates and incentives (see Table 2.3).

*Table 2.3: Green Shipping Ratings Schemes*

| Clean Shipping Project | Shippingefficiency.org | Green Award | CCWG | WPCI |
|---|---|---|---|---|
| The Clean Shipping Index enables cargo owners to evaluate shipping companies and carriers to verify, benchmark and improve their environmental performance. | 'Right Ship' rating system evaluates ship energy efficiency and emissions. | A ship achieves a Green Award certificate on meeting certain environmental criteria that are better than the legislative minimum. | CCWG Performance Survey enables comparison of a shipping company's environmental performance with other members in CCWG. | Environmental Ship Rating Index identifies seagoing ships that perform better in reducing air emissions than required by the IMO. |

## 2.2  Findings

The gap and convergence evaluation of voluntary CSR collaborations and initiatives in the shipping sector reveals seven major overall findings. These CSR initiatives:

1. Share a common long-term vision for a responsible industry.

2. Focus primarily on environmental issues and underweight social concerns.

3. Converge on particular sustainability governance concerns.

4. Are fragmented and overlapping but beginning to harmonize.

5. Encourage maritime sector collaborations and supply chain and multi-stakeholder engagement.

6. Facilitate regulatory implementation and drive beyond-compliance improvements.

7. Go beyond iconic environmental, health and safety (EH&S) concerns to address emerging strategic performance issues.

### 2.2.1  Shared Long-term Vision

Voluntary CSR collaborations and initiatives in the shipping industry vary in their issue-focus and specific objectives. However, they share a consistent long-term vision to maintain and protect the shipping sector's reputation and competitive viability as a responsible industry.

– The **SSI's** Vision 2040 multi-stakeholder visioning exercise identified energy efficiency, emissions reduction, health and safety, positive impact in local communities, and governance as critical issues. In response, the SSI has established four main work streams to address the issues: financing, benchmarking, technology and closed loop materials management (see Textbox 2.1).

– **Green Award** requirements include quality, safety, environment and technical areas related to the ship and ship manager's office.

– The **World Ocean Council** aims to improve ocean science in support of safe and sustainable operations within the ocean business community (shipping, oil & gas, fisheries, ports, pipelines, etc.)

*Textbox 2.1*

| Shared CSR and Regulatory Long-term Visions |
| --- |
| In 2011 the Sustainable Shipping Initiative (SSI) – a multi-stakeholder organization consisting of leading shipping companies and non-governmental organizations – conducted a visioning exercise to identify the critical challenges confronting global shipping over the next 30 years.  Research highlighted the growing importance of sustainable development practices to the future performance and resiliency of the industry.  The rising demand for transparency throughout supply chains, increasing volatility surrounding fossil fuel prices, growing pressure for social and environmentally conscious practices on behalf of consumers, and the increasing visibility of climate change impacts (i.e. extreme weather events, sea level rise etc.) were just some of the pressures that would require shifts in industry practices by 2040.<br><br>In order for the sector to successfully adapt to this new and challenging operating context, SSI members have called on industry leaders to: (1) integrate social and environmental concerns into their business models; (2) prepare for greater consumer scrutiny regarding their social and environmental performance; (3) invest in energy efficient technologies and ship designs; and (4) support the creation of a global regulatory framework that rewards sustainability. (See: http://ssi2040.org.)<br><br>The SSI vision aligns with the IMO's goals. At the 2012 Rio + 20 United Nations Conference on Sustainable Development, IMO Secretary General Koji Sekimizu announced the IMO's plans to begin work on the creation of a regulatory framework towards "sustainable maritime development".  In particular, he noted the importance of stimulating the industry to invest in new technologies to reduce CO2 emissions and adopt practices that promote environmental protection.  At the 2013 World Maritime Day (the theme of which was 'sustainable development'), the IMO followed up with the announcement of a task force that would conduct work on eight pillars of maritime sustainability: environmental stewardship, energy efficiency, technology innovation, education and training, security and anti-piracy, traffic management, infrastructure development, and global regulatory standards. |

### 2.2.2    Environmental Emphasis

Voluntary CSR collaborations and initiatives in the shipping sector tend to focus primarily on environmental issues and underweight social concerns. The major areas of convergence include: air pollutants and GHG emissions (see Textbox 2.2), energy and fuel efficiency, waste management, water management, discharges, ship design, and invasive species.  Social issues (e.g., employee well-being, health and safety, community impacts, local socio-economic development and security) are not as widely addressed through industry collaborative voluntary efforts. Exceptions include Business for Social Responsibility's Maritime Anti-corruption Network working group and the Business Alliance for Secure Commerce (BASC) public-private collaborative group that is addressing supply chain security standards (see Textbox 2.6).

*Textbox 2.2*

## Climate Change and Shipping – Regulatory and Voluntary Collaborative Responses

According to the IMO's 2009 GHG study, if unabated, the shipping industry's contribution to global CO2 emissions could increase from 3% to 18% by 2050. There are an increasing number of regulatory and voluntary initiatives in response.

**International Regulation**

International shipping accounts for approximately 3% of global GHG emissions. The IMO adopted policies and procedures related to the reduction of GHG emissions from ships in December 2003 (Assembly 23). The IMO approach includes consideration of technical (e.g., new ship design), operational (applicable to all ships), and market-based policy measures (e.g. carbon price).

The main IMO measures to address climate change fall under MARPOL Annex VI, Chapter 4, Regulations 19-23 and came into effect in January 2013. These apply to bulk carriers, tankers, container ships, general cargo ships, gas carriers, reefers and combination carriers, and all ships > 400 GT.

Requirements include:
• Energy Efficiency Design Index (EEDI) to encourage innovation in ship design to reduce energy consumption. Considerations include: low carbon fuels (e.g. LNG); renewable energy; power and propulsion systems; hull and superstructure; and speed and capability design.
• Ship Energy Efficiency Management Plan (SEEMP) requiring existing ships to have in place management systems to improve and monitor energy management, cargo handling, fleet management, ship ballast/trim/rudder optimized usage, speed and power optimization, and improved voyage planning.
• Technical co-operation and transfer of technology capacity building efforts to: raise general awareness about GHG emissions and related regulations; training of control officers and ship's crew; and technical assistance for developing countries to develop and implement national-level actions.

**Voluntary Action**

Voluntary collaborative actions to reduce GHG emissions and improve energy efficiency include the introduction of management tools to calculate a ship's carbon footprint to compare best practices; and technological innovation guidance and pilot projects.

**Technology Innovation**
• **Shippingefficiency.org** has developed a Clean Tech Guide that provides a reference tool on energy efficiency technologies and related savings.
• The **SSI** energy technology work stream is exploring new technologies and techniques to reduce energy requirements and resulting emissions (from) vessels. This includes case study investigations into voyage optimization, wind assistance and air lubrication opportunities and barriers to uptake.
• **Green Ship of the Future** has conducted multiple studies on technical solutions to reducing air emissions including one based on IMO objective to reduce sulphur levels in fuels by 2015 and others focused on designing low-emission vessels.
• A **WPCI** LNG-Fuelled Vessels working group is developing an LNG Bunkering checklist; defining risk parameters, and developing public awareness communications.

**Management Tools**
• **Shippingefficiency.org's** 'Rightship' has developed an Existing Vessel Design Index and a Greenhouse Gas Emissions Rating. The Rightship EVDI is like the IMO's EEDI, however, it allows for the measure of an operating ship's CO2 emissions (not just future, planned ships). The GHG rating allows for comparing CO2 levels between similar ships.
• **CCWG** has developed an emissions calculator (including CO2 by trade lane) to enable cargo owners to calculate their marine cargo transport carbon footprint and measure their Scope 3 transportation emissions.
• **CCWG** maintains a comprehensive vessel-by-vessel GHG emissions database and also shares ship data on NOx (main engine), S02 (from bunker fuel), and C02 (by trade lane) emission levels based on the CCWG standardized accounting methodology.
• Green ratings schemes (see Table 2.3) provide N0x, S02, PM and C02 emissions and energy efficiency scores to encourage the sharing of sustainable shipping best management practices and performance improvement.

### 2.2.3 Convergence on Governance Issues

CSR initiatives are converging on sustainability governance (rule-making) concerns. Specifically, this convergence includes the need for greater transparency and disclosure, data management (see Textbox 2.3), multi-stakeholder engagement, and the requirement for formalized sustainability management systems (See also Section 2.3).

– **Clean Cargo Working Group** members are encouraged to have an ISO 14001 compatible and certified environmental management system with policies and procedures, training, monitoring and reporting mechanisms to manage risks to continuously improve performance. The status of the EMS is reported annually in the CCWG Environmental Performance Survey.

– **Green Marine** evaluates and reports ships' environmental performance based on a set of benchmark indicators on a progressive scale from 1 to 5. Results are published and disclosed in their Annual Progress Report available on their website.

*Textbox 2.3*

> **Shipping Sustainability Metrics and Management**
>
> A key performance indicator (KPI) is a numerical measure of an activity that has bearing on (leading indicator) or reflects (lagging indicator) a shipping company or ship's environmental or social performance. Companies track major KPIs in a scorecard. A management system supports the systematic tracking, reporting and continual improvement of scorecard KPI performance.
>
> Ratings schemes such as Rightship and the Clean Shipping Index adopt KPI metrics as benchmark indicators for scoring and ranking ship environmental performance. The Clean Cargo Working Group is also establishing standardized performance metrics and benchmarks for air, water, waste, chemicals, environmental management systems and transparency improvements in the sector.

### 2.2.4 Fragmentation

Voluntary CSR collaborations and initiatives in the shipping sector are fragmented and overlapping but beginning to harmonize.

– **Shippingefficiency.org**'s RightShip rating system (environmental impacts, safety and energy efficiency) overlaps with the **World Port Climate Initiatives**' 'Environmental Ship Index' and the **Clean Shipping Project**'s 'Clean Shipping Index.' RightShip also employs the **Clean Cargo Working Group**'s standardized methodology for calculating C02 emissions (but not for energy efficiency).

– **Green Award** requires mandatory participation in the **World Ports Climate Initiative Environmental Ship Index** (ESI) (re: air emissions reductions) for obtaining a Green Award certificate.

– **SSI** is working to develop an umbrella framework that coordinates all of the many different CSR voluntary collaborative initiatives across the sector.

### 2.2.5 Multi-stakeholder Engagement

CSR initiatives are encouraging maritime sector collaborations and supply chain and multi-stakeholder engagement (see also Section 2.3.2).

– **Sustainable Shipping Initiative** members include 19 of the world's leading companies in the maritime sector (ship owners, ship builders, banks and insurers, classification societies and customers) with NGOs Forum for the Future and the WWF.

– The **Clean Cargo Working Group** participants include 32 members (carriers and cargo owners) that move more than 60% of global container cargo.

– **World Ocean Council** brings together the maritime business community with academic, governmental and non-governmental scientists to advance understanding and science-based solutions towards greater marine protection (e.g. regarding impacts of sound on marine life, vessel/platform recycling; ballast water and invasive species; and ship 'strikes' on whales).

### 2.2.6    Filling Global Regulatory Gaps and Going Beyond Compliance

Voluntary CSR collaborations and initiatives are helping to facilitate the implementation of international shipping regulations and drive beyond-compliance improvements in sustainability performance – fundamentally, reinforcing, supplementing and filling gaps in the international regulatory regime (see Appendix H for summary of international shipping regulations).

#### Facilitating Regulatory Implementation

– **Green Marine** defines best practice regarding the management of oily water as the implementation of an integrated bilge treatment system as defined by IMO guidelines (MEPC 1/Circ.511, 18 April 2006) for vessels built after January 01, 2011.

– **Green Marine** also encourages shipping company N0x reduction targets as per technical specifications for Tier 1 limits set under MARPOL Annex VI, Regulation 13 through measures such as: preventative engine maintenance system; regular sampling (every 5 yrs) and an annual inventory of N0x emissions; and use of emission reduction engines and technologies.

– **Clean Cargo Working Group** has developed a standardized methodology for carriers and cargo owners to calculate, report, benchmark, compare, and reduce carbon dioxide emissions (by aggregated shipping lane and on a vessel-by-vessel basis). The CCWG carbon reporting methodology is informed by the IMO and US EPA SmartWay as well as by voluntary CSR collaborative efforts such as the WRI GHG Protocol, GRI, World Shipping Council, and the **Clean Shipping Project**.

– **Green Ship of the Future** is facilitating leading research to establish best practices with respect to novel ship design, alternative fuels and onboard systems integration to reduce C02, N0x, S02 and PM (particulate matter)  emissions to meet IMO emission levels for ships sailing the Emission Controlled Areas (ECA) E.g. A recent study (ECA Retrofit) identifies practical solutions and the financial implications to meet the reduction of the sulphur level in fuel oil to 0.1% or clean the exhaust gas to an equivalent level by the 2015 requirement. Feasible solutions examined include: low-sulphur fuel/distillate; LNG as fuel; and scrubber technology.

#### Filling Gaps and Pushing the Bar on International Regulation

– **Green Marine** requires basic statutory compliance to ISM, MARPOL as well as demonstration (and ranking) on continually updated environmental performance standards for safety and environmental best practices (based on industry consultations) that go beyond regulation.

– S**hippingEfficiency.org**'s online EVDI ranking of over 60,000 existing operational vessels based on their energy efficiency and environmental impacts draws on the IMO's Energy Efficiency Design Index (EEDI) database (which only applies to planned ships under construction) and also on data from the IHS Fairplay ship registry.

– **Green Marine** defines best practice as no discharge overboard of any garbage (except food waste where authorized) whereas IMO (MARPOL Annex V) prohibits plastic but allows semi-processed waste discharges. Green Marine also has a broader definition of 'garbage' beyond the MARPOL categories.

– **Green Marine** also has a broader definition of 'garbage' beyond the MARPOL categories.

– **World Ports Climate Initiative's Environmental Ship Index** (ESI) utilizes IMO regulations as the baseline and encourages air emission reductions in N0x, S02, PM and C02 beyond regulatory compliance.

– The **Clean Shipping Project's Clean Shipping Index** consists of a questionnaire of 20 questions on environmental performance that all go beyond existing rules and regulations concerning: S0x and PM emissions, C02 emissions, chemicals, water and waste control.

### 2.2.7    Addressing Emerging Strategic Issues

Going beyond 'iconic' environmental, health and safety concerns such as greenhouse gas emissions, energy efficiency, and worker safety, voluntary CSR collaborations and initiatives in the shipping sector are raising the performance bar on emerging risk management and business performance issues.  A good example is ship design.  Cargo security is an emerging area of CSR attention.

a)  **Ship Design**
Although shipping is the most energy-efficient mode of transportation for containers and bulk cargo as compared to air, rail or truck, new regulations and stakeholder expectations are creating mounting pressures and shifting the traditional competitive landscape.  In particular, shipping customers are expecting their logistics providers to demonstrate sustainability performance.

Ship design has always been at the centre of cost control and efficiency.  Now, green design is part of this equation. This new element includes technological innovations to improve energy efficiency, air emissions, ballast water discharge and ship recycling (see Textbox 2.4). CSR voluntary collaborative initiatives are helping to educate ship owners and guide innovative advances.

- **Green Ship of the Future** is leading research to establish best practices with respect to novel ship design, alternative fuels and onboard systems integration to reduce C02, N0x, S02 and PM emissions to meet IMO emission levels for ships sailing the Emission Controlled Areas (ECA).

- **SSI** is working towards developing partnerships to share risks and benefits associated with developing, testing and implementing sustainable innovation and technology for both new-build and ship retrofits.

*Textbox 2.4*

**Green Ship Design: The World's Largest Eco-friendly Container Ship**

The Maersk Triple E ship launched in July 2013. Triple-E stands for: economy of scale; energy efficiency, and environmentally improved. At 400m long, 59m wide and 73m high with a capacity to hold 18,000 twenty-foot containers it is the world's largest container ship. It is also one of the most eco-friendly.

Environmentally improved and energy efficiency capabilities of the ship reflect some of the trends in green ship design. These include:

— Innovative design and technologies that reduce the ship's carbon emissions by greater than 50% per container transported as compared to the industry average (in Asia-Europe trade).

— State-of-the-art waste heat recovery system to reduce fuel consumption (uses exhaust gas heat and pressure to power the ship's turbines).

— Innovative 2-propeller system slows speed to 2 knots less than standard E-class but improves energy efficiency from 80MW to 60MW of power.

— Reuse and recycling of ship parts through a 'cradle-to-cradle passport' documentation system that monitors ship components.

b) **Cargo Security**

While security is hardly new to the maritime sector, the 9/11 terrorist attacks on the United States sparked heightened international concern over the issue of container content security. Fears that international terrorist networks could exploit cargo ships to smuggle chemical, biological, radiological, or worse, nuclear weapons into vulnerable ports prompted individual governments (at the behest of the U.S. government), intergovernmental organizations, and industry associations to take governance measures to ensure the contents of cargo containers could not be used to harm citizens and crew. While international concerns initially pertained to weapons of mass destruction, container content security has since expanded to include other critical security issues such as the smuggling of illicit goods (i.e. narcotics/contraband), human trafficking, and crew/ship safety. Voluntary CSR collaborations and initiatives are also emerging in this area to heighten the maritime industry response alongside international regulatory efforts (Textbox 2.5).

*Textbox 2.5*

**Container Contents Security**

Recent voluntary CSR initiatives introduced to ensure the security of containers include the ISO 28000 "Specification for Security Management System for the Supply Chain" to demonstrate conformity with security specifications across a company's transport systems.

The Business Alliance for Secure Commerce (BASC) is a public-private international initiative comprised of governments (customs associations) and corporations from various sectors that promotes safe international trade. The BASC mission is to establish and administer global supply chain security standards through partnerships between business and governments at both domestic and international levels.

The Strategic Council on Security Technology developed the Smart and Secure Tradelanes (SST) initiative in 2002. The SST allows three of the world's largest port operators – Hutchison Port Holdings, P&O Ports, and PSA Corporations – to better cooperate in the implementation of tracking and detection systems for cargo containers bound for the USA.

These voluntary initiatives supplement regulatory efforts of the World Customs Organization (WCO) and International Maritime Organization (IMO) – the principle intergovernmental bodies that have implemented regulations to govern container content security internationally.

In 2002 the IMO implemented the International Ship and Port Facility Security Code (ISPS) under chapter XI-2 of the International Convention for Safety of Life at Sea (SOLAS). It provides governments with a standardized template for security risk assessments to ships and port facilities according to a three level threat classification scheme. The WCO has worked in conjunction with the United Nations Office on Drugs and Crime to implement its Container Control Program (CCP). In 2005 WCO adopted the Framework of Standards to Secure and Facilitate Global Trade (SAFE Framework) as a deterrent to international terrorism in shipping. The SAFE Framework consists of a set of harmonized security standards and best practices to enhance the inspection of outbound and inbound cargo containers.

## 2.3 Implications

CSR ratings schemes, cross-sector governance programs and practical applied initiatives are improving sustainability performance and contributing to a more adaptive and resilient business model in the shipping sector. This emerging model of standard business practice includes increased transparency and accountability for sustainability performance. There is also greater collaboration and engagement within the industry, across the supply chain, and between government regulators and voluntary collaborative initiatives.

### 2.3.1 Transparency and Accountability

–  The **Clean Cargo Working Group** provides a platform for industry transparency and disclosure. It has developed standardized methodologies and metrics for tracking and reporting on vessel-by-vessel environmental performance. Members can calculate a marine cargo transport carbon footprint (along with other statistics) and compare this to other members in the industry. All of these results are publicly disclosed.

–  The **SSI** has identified the need for leadership in developing methods for shipping industry stakeholders to compare sustainability performance in order to drive sector-wide improvements. This includes encouraging customers to make sustainability performance a key factor in selection and to promote global adoption across the supply chain of an agreed set of performance standards.

– The **Clean Shipping Project** is aiming to improve industry transparency and accountability through the Clean Shipping Index which helps cargo owners evaluate shipping companies' environmental performance and factor this into their contract decisions. Under the Clean Shipping Index carriers verify and disclose (by ship; by company; and by environmental issue) their level of environmental performance for air emissions, water and waste and chemicals.

### 2.3.2    Collaboration and Engagement

– The **Sustainable Shipping Initiative (SSI)** seeks to influence national and international standards and policies by working with others in the maritime industry, governments and other relevant stakeholders around the world. SSI represents ship owners and charterers, shipbuilders, engineers and service providers, banking, insurance, and classification societies, as well as NGOs Forum for the Future and WWF. More than 19 global shipping companies as well as shipbuilding and engineering companies are involved in the cross-industry coalition, including key industry players such as Maersk Line, Cargill, Lloyd's Register, DNV, Wärtsilä and Daewoo Shipbuilding and Marine Engineering (DSME).

– The **World Ocean Council** is an international cross-sectoral industry alliance for private sector leadership on "corporate ocean responsibility" in ocean science, stewardship and sustainability. Corporate members include those who use the ocean from a range of sectors: shipping, fisheries, oil and gas, aquaculture, offshore renewable energy, tourism, marine technology, manufacturers, retailers, insurers, finance, etc. Associate members include maritime associations and networks, and NGO and university science-based research institutes. Collaborative working groups are developing practical solutions on: marine spatial planning, marine invasive species, marine debris, ocean noise, marine mammal impacts, water pollution, improved ocean science, ocean policy and governance with a focus on priority regions like the Arctic.

– **Green Marine** facilitates industry collaboration within North American shipping industry between ship owners, and ports, terminals, and shipyards.  Their membership also includes supporters and partner organizations such as environmental organizations and government representatives. Their annual conference brings together players all throughout the industry and shipping supply chain.

– The **Clean Shipping Project** includes organizations from various arenas - industry, government, and NGOs. Voluntary participants in the Clean Shipping Index include 11 of the largest global container carriers and 31 large cargo owners.  Over 1,500 vessels are registered in the CSI database. The CSP is managed by a small, non-profit organization based in Gothenburg, Sweden.

– The **Clean Cargo Working Group** is aiming to improve the environmental performance of marine transportation through supply chain collaborative efforts including encouraging greater communication and information sharing between carriers and cargo owners. Its 32 members move more than 60% of global container cargo.

## 2.4    Feedback

As previously noted, nine individuals representing the industry perspective were interviewed for their feedback on preliminary findings from an initial comparative assessment of gaps and convergences in voluntary and regulatory initiatives on sustainability issues in the shipping sector.  There was considerable agreement on the preliminary findings listed below.

Current voluntary CSR collaborations and initiatives in the shipping industry are:

- Focused primarily on environmental issues and underweight social concerns.
  - Reasons given for this include more opportunities for cost savings from eco-efficiencies and ease of measuring. One interviewee commented that this will change in future and pointed to the 2-year old Maritime Anti-Corruption Network as an example of a social collaboration in the maritime industry (see Textbox 2.6).

- Convergent on particular sustainability governance concerns such as the need for greater transparency and disclosure, data management (metrics, benchmarking), stakeholder engagement, and the requirement for formalized sustainability management systems.
  - Two interviewees observed that this was an over-generalization, and that there are different types of initiatives with different priorities, such as those focused on rating, benchmarking and transparency, others pursuing practical projects and others addressing global ocean governance concerns.

- Fragmented and overlapping.
  - One interviewee commented that it is difficult for shipping companies and their customers to identify which initiative to join because of this fragmentation and overlap.
  - Another interviewee said that while this is true as a general statement, the World Ocean Council is the only initiative focused on global governance, rating organizations are fragmented and overlapping and practical action groups have some overlap but no fragmentation.

- Beginning to work together.
  - A few interviewees commented that shipping companies and their customers are working to get the initiatives to collaborate more and align their data requirements.

- Going beyond IMO and raising the bar on environmental sustainability performance.
  - An interviewee commented that this was necessary because the baseline provided by the IMO is too low.
  - One interviewee disagreed with this finding, commenting that it is cost-savings and operating efficiencies that are raising the bar on environmental sustainability performance, not the voluntary CSR collaborative initiatives. As well, according to the interviewee, at least two of the initiatives do not include or incorporate changing the behaviour of shipping companies in their mandate: World Ports Climate Initiative and World Ocean Council.

- Encouraging marine sector collaborations and supply chain and multi-stakeholder engagement.
  - One interviewee commented that the nature of collaboration and engagement depends on the group. Rating schemes, for example, engage along the supply chain but are not encouraging general sector collaboration, while practical action groups are encouraging sector collaboration.

*Textbox 2.6*

**The Maritime Anti-Corruption Network**

The Maritime Anti-Corruption Network (MACN) is a global business network working towards its vision of a maritime industry free of corruption that enables fair trade to the benefit of society at large. MACN Members promote good corporate practice in the maritime industry for tackling bribes, facilitation payments, and other forms of corruption by adopting the MACN Anti-Corruption Principles, communicating progress on implementation, sharing best practices, and creating awareness of industry challenges. MACN also collaborates with key stakeholders, including governments, authorities, and international organizations, in markets where corruption is prevalent to its membership, to identify and mitigate the root causes of corruption in the maritime industry.

While there was considerable agreement on the foregoing findings, industry interviewees were divided in their support for the following preliminary assessment:

- CSR initiatives are reinforcing and facilitating the implementation of IMO environmental regulations and guidelines (providing the international rules with 'legs to walk on').

Two interviewees favoured this view, commenting that IMO regulations, often implemented without a lot of consultation, lack definitions, details and practical guidance. Voluntary CSR collaborative initiatives play an important role in helping to interpret and execute/implement the IMO regulations. The majority of interviewees, however, commented that CSR initiatives are beyond compliance schemes and thus not operationalizing IMO regulations. A final divergent opinion was expressed that the CSR initiatives are not reinforcing and facilitating the implementation of IMO environmental regulations, but improving the CSR image of the shipping industry as part of a public relations initiative.

Interviewees made additional observations about the interface between regulations, regulators and the voluntary CSR collaborative initiatives, pointing to possible future trends in these relationships:

- One interviewee observed a trend in regulators engaging with CSR initiatives to consult with and better understand the sector and sector best practice.

- Two other interviewees commented that the process was reversed in that voluntary CSR collaborations and initiatives help create precedents in the industry on which future regulation can build.

**Desire for Common Standard**

*"If you want to have standards and benchmarks drive performance they should be the same or fewer of them."*

— Interviewee

### Pros and Cons of Coordination

*"We need to find a way of keeping track of all the things that are going on. […] Things need to be coordinated at some level. We don't want to spend all our time coordinating and not get on with it. The closer the overlap is the harder it is to coordinate. Sometimes competition between schemes can work well."*

— Interviewee

### A Dumb-bell not a Bell-curve

*"The shipping industry is such a capital intensive and mobile industry that it is by nature highly 'bifurcated' when it comes to social and environmental performance. The best image that comes to mind is that of a 'dumb-bell' where you have industry leaders at one end doing a lot, then a thin line in the middle where there is not much happening, and then a big grouping at the other end that is managing to get by with very little in the way of either private (i.e. voluntary measures) or public regulation."*

— Interviewee

# Section 3 – Framework for CSR in Shipping

Trending issues in global sustainability such as climate change, resource scarcity, income disparity, changing customer expectations, and declining coastal and ocean health are creating pressures on the shipping industry for improved social and environmental performance. A draft CSR Framework was conceived in the Phase One research as a tool to help the international shipping industry identify, manage, and improve, its sustainability risk, opportunities, impacts and performance.

## 3.1 Overview of Draft CSR in Shipping Framework

A key outcome of Phase One of this project was the development of a high level tool to assist shipping industry associations and companies interested in further integrating CSR principles and business strategies into their operations. (See Appendix D.) The purpose of the CSR in Shipping Framework is to help shipping companies identify and prioritize key social and environmental impact areas for performance improvement. The original components were compiled from a review of literature on: CSR application in a maritime context, shipping industry association priorities, CSR reports in the shipping sector, and issues addressed by voluntary CSR collaborations and initiatives in the shipping industry.

The original Phase 1 CSR in Shipping Framework was divided into four key impact areas, including:

- CSR Governance
- Social Responsibility
- Environmental Responsibility
- Ocean Responsibility

Within each category there are a number of performance areas which address CSR issues relevant to the international shipping industry. The Framework is designed to be a comprehensive, at-a-glance overview of social and environmental best practices which shipping companies can pursue to become CSR leaders, manage risks and leverage opportunities. It is an aspirational tool, which provides a platform for industry and other stakeholders to engage with the concept of CSR. It foreshadows emerging CSR issues likely to become more significant to shipping companies and their stakeholders over time. It is also an early warning device which signals not only current, but emerging social and environmental issues which will influence the ability of shipping companies to attract and retain customers and employees and create shareholder and owner value.

For SMEs and those beginning their CSR journey, the tool can be used to develop a roadmap or work plan. It eliminates the need to conduct costly research into top priorities for the industry. It foreshadows those best practices which will be adopted by competitors and peers, and which will increasingly be expected by customers and governments. It can be used for selecting top issues relevant to their customers, employees, investors and other important stakeholders.

Larger companies have more in-house capacity to research relevant issues and subsequently develop the goals and strategies to address them. For larger and more advanced companies the CSR in Shipping Framework can help provide the bigger picture, acting as a checklist to ensure a comprehensive approach. It can be used to inform long-term strategic and scenario planning.

Thus, the Framework can be used as a "pick-and-choose" tool where companies prioritize and address impact areas which reflect the size, type and region of business, and maturity along the CSR continuum of practice.

## 3.2    Feedback

During the Phase 2 research, nine interviewees representing the perspective of the shipping industry were consulted for feedback on the CSR Framework. A significant majority believed the Framework was appropriately comprehensive and included the main CSR impact areas. Sample comments include:

| Sample Feedback from Shipping Industry Perspective Interviewees |
| --- |
| Classifications seem valid and make sense (7 references) |
| It covers all the essential matters (6 references) |
| It's a good overview (5 references) |
| It is an advanced tool, nice to have on one page |
| A lot of the hot topics are there on the labour, environment and community side |

| Land Use Impacts |
| --- |
| *"If shipping companies are displacing a type of land use in shortage (e.g. taking agricultural land out of production), are they mitigating for that and replacing it with (e.g.) additional agricultural land and productive habitat?"*<br><br>— Interviewee |

Industry representatives generally found the tool to be practical, business-like, and tangible and something shipping companies could relate to. They liked the fact that the Framework can help companies understand what's next and help the industry synchronize its efforts.

A minority opinion was expressed that the Framework interpreted CSR too broadly because it included items outside of a company's direct control and thus outside of its zone of responsibility. This perspective is summed up by this comment:

"This framework interprets a shipping company's responsibility too broadly; we merely move goods from A to B. We are not governors of world trade, just facilitators of world trade."

Another interviewee commented that with respect to some of the CSR impact areas there are different opinions of what constitutes social responsibility. Two examples include:

- Facility payments to government officials [referred to as bribery in the Framework] are not unethical business practices, but "how things get done on a daily basis"; and

- It is "completely normal business" for many shipping companies to facilitate trade with "sensitive" regions [i.e. repressive regimes].

This reflects the diversity of thinking within the shipping industry regarding what constitutes "best practice" in corporate social responsibility.

Many also commented that the impacts would need to be tailored to different circumstances. The impacts do not apply to every type of business model, within every jurisdiction, at all times. In the case of the latter, local social development, for example, was thought to be more applicable in head office communities than in port communities.

The balance of the comments related to recommended improvements to the CSR Framework itself, all of which were adopted and included in the final draft of the CSR Framework found in Appendix F, with one exception. One industry representative recommended aligning the four categories (environmental, social, governance and ocean responsibility) with the ISO 26000 social responsibility framework. While this idea has merit to foster synergies between the two guidance documents, many felt the simplicity of the more generic nature of the CSR Framework categories may enable quicker comprehension, adoption and take-up at this time. As well, the revised CSR in Shipping Framework aligns with the ESG framework (for environmental, social and governance) which global institutional investors are increasingly adopting.[11]

The accepted changes (see Appendix E for a full list of changes) included terminology clarifications and impact clarifications. Impact clarifications were of two types:

- Additional environmental impacts over which shipping companies have direct impact and direct control (i.e. spill and leakage response, and ballast water management); and
- Additional social and environmental impacts on which shipping companies have an indirect impact and can influence but not control (e.g. government payment disclosure, piracy, community health and safety).

Finally, the most robust and revealing set of changes recommended and incorporated into the revised draft CSR Framework clarify and broaden the intent and scope of the fourth category, originally entitled ocean responsibility. As a result of feedback, this section was renamed "collaborative responsibility" to clarify the co-operative nature of this performance area. It was also expanded to include a social dimension beyond its original focus on environmental impacts. Thus, with this terminology change, the four categories, or pillars of the Revised CSR Framework are:

- Environmental Responsibility
- Social Responsibility
- CSR Governance
- Collaborative Responsibility

Industry interviewees also recommended broadening the scope of the Collaborative Responsibility section, and thus the CSR performance expectations for best practice companies, to include the full "value chain" of the shipping industry. They recommended including the role of the shipping company to influence (and

improve) not just the CSR performance of Ports (in the original draft), but also customer and supplier CSR impacts. They also recommended that shipping companies understand and work to improve the life cycle impacts of goods movement, from goods origination to destination. This resulted in an expansion of the Framework to include shipping's value chain CSR impacts, both in terms of the companies up- and downstream of a shipping company's operations, and goods movement impacts per se. Note that industry collaborations and partnerships were pre-identified as an area of CSR responsibility, as was "ocean governance" – which refers to the role shipping companies can play in contributing to, and participating in, collective multi-stakeholder efforts to improve and maintain ocean and coastal health.

| Disaster Relief |
|---|
| *"An example of disaster relief is when shipping companies carry cargo and support disaster relief at no charge."* <br> — Interviewee |

Overall, industry interviewees were very supportive of the CSR Framework tool and its value to the shipping industry.

| Summary of Feedback on Draft CSR in Shipping Framework |
|---|
| Classifications are valid and comprehensive. |
| The Framework tool is practical, business-like and tangible. |
| The impact areas are useful for understanding emerging issues and helping industry synchronize its efforts. |
| Expand and further clarify areas where shipping companies have direct impact and control and indirect impact and influence but no control. |
| Broaden scope of fourth category to include the complete value chain of goods movement and social issues. |
| Not every impact applies in every instance; tool needs tailoring to company circumstances. The industry has different opinions of the boundaries of social responsibility. |

See Appendix D for the original draft CSR Framework, Appendix E for a summary of the feedback and edits, and Appendix F for the Revised CSR Framework.

# Section 4 – Conclusions and Recommendations

## 4.1    Conclusions from the Comparative Analysis

The international shipping industry has embarked upon a hybridized system of governance on social and environmental performance issues that involves both public regulation and private self-regulation through voluntary CSR collaborations, initiatives, measures and standards. Without proactive management, growing complexity presents a barrier to participation by different sectors of the industry and hence is an impediment to progress and long-term competitiveness.

The comparative analysis conducted for this research confirmed that the last decade has seen rapid growth in voluntary CSR standards and collaborative initiatives in the shipping sector.  Sustainability rules and requirements are increasing in complexity across borders, thereby creating different pressures on  global, national and regional scales..  Shipping sustainability performance expectations are also differing somewhat by business sector (e.g. forestry, mining, retail, finance).

Complexity presents a barrier to progress and competitiveness in the shipping sector. Large companies are gradually adopting voluntary CSR measures and are leading on addressing environmental and social issues as compared to small to medium-sized enterprises (SMEs). SMEs face different challenges, such as technical and economic barriers to participation, and are lagging in sustainability progress.

Variance in CSR efforts highlights the need for more collaboration to address both barriers and new challenges that will define business value and competitiveness, including access to markets and customers.

The global spotlight is beginning to shine on the shipping sector. Customers, governments, NGOs and investors expect greater transparency and accountability for sustainability performance by shipping companies.  Yet, many companies face confusion as to what constitutes feasible best practice from their perspective.

Green shipping rating systems are attempting to standardize best practice. However, at this point, the overall system is still best described as idiosyncratic with rating systems differing in their measures and reporting content, thereby undermining the potential to compare data and benchmark performance. A certain amount of diversity in standards as well as fragmentation between different regulatory jurisdictions is inevitable due to differing circumstances, players and priorities. In a best case scenario ccomplexity can promote innovation and continuous improvement as the various systems compete for legitimacy and performance.  Yet, with no coordination, diversity and fragmentation can also impose significant inefficiencies on the shipping industry itself as well as its customers and investors.

The international shipping sector is at a turning point. Though industry efforts to address growing sustainability risks and expectations are accelerating, there is nevertheless a need to do more. Failure to create coherence on CSR initiatives and standards will lead to greater confusion and increased disparity in performance across the sector. While a certain degree of confusion is inherent to any new system that is responding dynamically to changing circumstances and events,   it is important to note that the status quo is not static. Changes are occurring whether or not companies are involved or supportive. Failure to engage and manage change to ensure an optimum level of coordination and cooperation on CSR measures and standards will mean greater confusion, increased inefficiencies and growing business risks.

## 4.2     Conclusions Regarding CSR in Shipping Framework

Consultation with shipping industry representatives revealed a high degree of consensus on the value of, and need for, a high level comprehensive, robust, visionary CSR framework to help companies improve their CSR performance and enable the industry to synchronize its efforts.  The majority thought the CSR in Shipping Framework developed through this research was – and should be – comprehensive, timely, relevant and forward-looking.  Most agreed the issues covered were appropriate, although a minority view was expressed that CSR should be limited to a more narrow range of primarily environmental impacts under companies' direct control, such as emissions.  Given the diversity in the sector, especially with respect to business models and jurisdictions, application of the Framework would need to be tailored and adapted to the circumstances.

There was also general agreement on the need for commonly accepted CSR metrics and systems for integrating sustainability considerations into shipping performance management. As well, there was broadly-based agreement that shipping companies lack knowledge and skills in the identification and engagement of sector stakeholders.  This is an important and emerging issue which will need greater understanding and capacity in future.  The stakeholder map in Appendix A is a beginning step in that direction.

Finally, this research explored customer and investor drivers and trends in a modest way. Sector representatives commented that future work in this area would be beneficial. What are customer and investor priorities for improved CSR performance, now and going forward? More insights in this area would address an important knowledge gap and further justify the CSR in shipping business case.

| Summary of Key Conclusions | |
|---|---|
| 1 | There is a need for more proactive management to deal with increased complexity in both public regulation and private self-regulation through voluntary CSR initiatives. |
| 2 | There is a need for more collaboration to maintain business value and competitiveness. |
| 3 | Failure to achieve an optimum level of convergence and coherence will lead to greater confusion, inefficiency and growing disparity in performance across the sector. |
| 4 | The CSR framework developed through this research is comprehensive and valuable. |
| 5 | Common CSR metrics and systems are desirable. |
| 6 | Guidance on stakeholder engagement is worthwhile. |
| 7 | There is a need for better understanding of emerging CSR priorities among shipping industry customers and investors. |

## 4.3     Recommendations

*Complex global social, environmental and economic mega-trends are increasingly affecting businesses by putting a strain on natural resources, redefining risk, creating volatility in financial markets, causing more frequent disruptions to global supply chains, and threatening social license to operate for many business sectors; all of which affect market competitiveness.*

— John Elkington, Founding Partner & Executive Chair, Volans (2008 to Present)
    Co-Founder SustainAbility (1987 – 2008)

The seven key findings from interview and evaluation research activities conducted for this analysis highlight a major challenge and opportunity for the international shipping sector. The current lack of coordination on CSR issues and opportunities in the international shipping sector must be addressed by both the industry and its stakeholders. This is required if the sector is to keep up with growing regulatory pressures to attain higher levels of environmental and social performance, as well as increasing business pressures to improve efficiency, manage risk and maintain competitiveness.

There is a growing opinion within the shipping industry itself that the sector would benefit from positioning itself to address emerging and frontier social and environmental issues, and should be working within its value chain (suppliers, customers and investors) to improve overall sector performance. Current global trends suggest that CSR will increasingly be defined to include a company's direct and indirect impacts and the shipping sector will be called upon to play a stronger role in contributing to the solutions that will enable nine billion people to live well within planetary boundaries by 2050.

Current trends in the evolution of CSR in the shipping sector identified by this research are at risk of creating internal segmentation at geographical and organizational levels of the industry that could ultimately undermine not only the shipping industry's contribution to protecting the marine environment, but also the economics of the business itself. This scenario could occur due to increased operational costs driven by regulation, and due to increased disparities between large companies and SMEs relative to their capacity to meet emerging social and environmental challenges.

Under these circumstances the following three actions are recommended for consideration by shipping industry associations, the IMO and other key industry stakeholders interested in addressing current challenges.

| Summary of Key Recommendations | |
|---|---|
| 1 | Establish a global Centre of Excellence on CSR in Shipping through collaboration between industry and all associated stakeholders, including the IMO. The Centre of Excellence could provide a network for connecting industry, government and academics as well as shipping customers and investors on CSR issues and opportunities. The Centre could also function as a research and capacity building hub, coordinating and disseminating information that advances both theory and practice. |
| 2 | Utilize the CSR in Shipping Framework developed through this research to develop a core guide or toolkit for CSR implementation that includes performance metrics and best practice in stakeholder engagement. |
| 3 | Develop a global portfolio of pilot projects that test the business case for CSR in shipping. Disseminate information regarding each project or case study while systematically identifying key steps to building different models for CSR in the shipping sector that can be relevant to different components of the industry but particularly to SMEs. |

# Endnotes

[1] The Nippon Foundation is an international non-profit organization engaged in a wide variety of activities around the world that support education, coastal and ocean sustainability, and humanitarian causes such as public health and disaster relief. It also promotes CSR in various industrial sectors. The current chairman of the Nippon Foundation is Dr. Yohei Sasakawa, World Health Organization Goodwill Ambassador for Leprosy Elimination. The Foundation's International Maritime Program works with leading research organizations, national governments, NGOs and business to promote development of the human capacity that will be required to maintain the health and security of coastal communities and the ocean ecosystems that support them. For more information: http://www.nippon-foundation.or.jp/en/who/fields/

[2] Named after Dr. Jieh Jow Liou and founded by Professor Ivan Head in 2000, the Liu Institute for Global Issues serves as a hub for international policy-relevant research at the University of British Columbia (UBC). The Institute conducts and facilitates collaborative research on global issues, mobilizing knowledge from across disciplines into solutions and policy. It takes an interdisciplinary problem-solving approach to exploring new ideas and ways of learning to catalyze innovative thinking and positive societal change. The Liu Institute's current focus is on advancing sustainability, security, and social justice: understood as moving toward economic, social, and environmental interactions that promote the well-being of people in ways that are just, equitable, and sustainable. For more information: http://www.ligi.ubc.ca/

[3] See: Coady, L. & C. Strandberg, Corporate Social Responsibility in the Shipping Industry: a Global Perspective, April 2012, available at http://www.ligi.ubc.ca/sites/liu/files/Publications/2012_Apr_CSR_Global-Perspective-CSR-Shipping.pdf

[4] See Appendix D: Phase 1 CSR Framework.

[5] A summary of key discussion points at the October 2012 Stakeholder Consultation on the Phase 1 research findings is available at http://www.ligi.ubc.ca/sites/liu/files/Publications/2012_CSR_Consultation-on-2012-Review-CSR-in-Shipping.pdf.

[6] See Appendix B for a list of interviewees, and Appendix C for the interview guide. See Appendix E for the feedback and edits to the Phase 1 CSR Framework, and Appendix F for the revised Phase 2 Framework.

[7] The Copenhagen Symposium on CSR in shipping is being convened on November 12, 2013 by the Nippon Foundation (NF), the Japan International Transport Institute (JITI), the Baltic and International Maritime Council (BIMCO), the World Maritime University (WMU), and the Danish Shipowners' Association (DSA). Further information is available at http://wmu.se/csr2013.

[8] See presentation by Mr. Koji Sekimizu, Secretary-General, International Maritime Organization to Rio+20 IMO side event on a Maritime Sustainable Development, June 20, 2012. Available at: http://www.imo.org/MediaCentre/SecretaryGeneral/SpeechesByTheSecretaryGeneral/Pages/rioplus20sideevent.aspx. Further information on the IMO's commitment to Sustainable Maritime Development is available at: http://www.uncsd2012.org/index.php?page=view&nr=99&type=1000&menu=126.

[9] For a description of the ISO 14001 Environmental Management Standard, see the International Organization for Standardization (ISO) website at http://www.iso.org/iso/home/standards/management-standards/iso14000.htm.

[10] In 2010, the International Organization for Standardization (ISO) produced an International Standard (ISO 26000) providing guidelines for corporate social responsibility. See the ISO website at: http://www.iso.org/iso/home/standards/iso26000.htm.

[11] Institutional investors are increasingly considering environmental, social and governance (ESG) issues in their investment decisions given their impact on shareholder value. See, for example, the United Nations Environment Programme (UNEP) Finance Initiative's Principles for Responsible Investment (PRI) at: http://www.unpri.org/introducing-responsible-investment/.

[12] John Elkington, Invitation to the Canadian Business for Social Responsibility (CBSR) 2013 Forum.

# Appendix A: Shipping Industry Stakeholders

The following graphic provides an at-a-glance overview of key shipping industry stakeholders. The "blue" circles represent the stakeholders "within the industry" whose primary business activities are directly related to the shipping industry and who are key influencers in the shipping industry. Representatives from the "shipping industry" were interviewed in 2013 for feedback on the Phase 1 Draft CSR Framework prepared in 2012 and on the comparative analysis of gaps and convergence between regulatory and voluntary initiatives in the shipping sector that was undertaken in 2013.

# Appendix B: Interviewees – Shipping Industry Perspective

| Industry Perspective | Representative |
|---|---|
| Shipping Company | Jacob Sterling<br>Head of Environment and CSR<br>Maersk |
| | Simon Bennett<br>General Manager, Sustainable Development<br>Swire Pacific Offshore |
| Industry Association | Michael Lund<br>Deputy Secretary General<br>Baltic and International Marine Council (BIMCO) |
| | Stephen Brown<br>President<br>Chamber of Shipping of British Columbia |
| Port | Duncan Wilson<br>Vice President of Corporate Social Responsibility<br>Port Metro Vancouver |
| Customer | Don Smith<br>Director, Transportation<br>Teck Resources Limited |
| Ship Builder | Charlotte Olson<br>Manager, Environment<br>Seaspan ULC |
| Sustainable Shipping Coalition | Sam Kimmins<br>Principal Sustainability Advisor & Network Partner Manager, Forum for the Future<br>Lead, Sustainable Shipping Initiative |
| | David Bolduc<br>Executive Director<br>Green Marine |

# Appendix C: Interview Guide

## CSR in Shipping Phase 2 Research Spring 2013

The following is a list of questions to inform current research into CSR in Shipping undertaken by the Liu Institute for Global Issues and the Nippon Foundation. We hope you can provide your organizational perspective on the following questions. Your input and feedback will not be attributed to you or your organization. However, you will be listed amongst the interviewees for the project.

| 1. | Project Summary: Is this a useful project? (10 min.) |
|---|---|
| **Project Background** | In early 2012, the Nippon Foundation (NF) and the Liu Institute for Global Issues at the University of British Columbia (UBC) collaborated on a review of evolving trends in corporate social responsibility (CSR) and their relevance to the international shipping industry. This review found that in recent years there has been a rise in voluntary CSR standards and initiatives that address social, environmental and governance responsibilities in the maritime sector. It also put forward for consideration a series of key components in a high level CSR framework designed to be a tool for shipping industry associations and companies interested in further integrating CSR principles and practices in their operations. A stakeholder consultation held in late 2012 on these initial research findings recommended that a comparison be conducted between the proposed CSR framework and relevant international regulatory requirements in the shipping sector and that additional feedback on this next level of analysis be obtained from industry stakeholders. In mid-2013, the Nippon Foundation and the Liu Institute launched a 'Phase 2' research project to further test the CSR framework with shipping industry associations and companies and explore the role CSR can play in advancing cooperation between private and public sector activities on maritime sustainability goals. <br><br> *For further background on the Liu Institute, the Nippon Foundation and copies of the Phase 1 paper, consultation notes and the draft CSR Framework go to* http://www.ligi.ubc.ca/csr_shipping.htm |
| **Project Purpose** | In mid-2013, the NF and the Liu Institute launched a 'Phase 2' research project on CSR in international shipping to further explore: <br> (1) Draft components in a proposed CSR framework to help guide shipping industry associations, shipping companies and their customers interested in further understanding and integrating CSR principles and practices into business operations. <br> (2) The role that CSR can play in advancing coordination between private and public sector activities related to maritime sustainability goals. <br><br> *Note: The terms corporate social responsibility (CSR) and sustainability are used interchangeably in this research.* |
| **Methodology** | (1) Draft CSR Framework from Phase 1 (Key Performance Areas) <br> (2) Gap and Convergence Analysis (Voluntary vs. Regulatory Initiatives) <br> (3) Interviews with Representatives with Shipping Industry Perspectives <br> (4) Implications and Recommendations |
| **Presentation** | Key findings and recommendations from this Phase 2 project on CSR in Shipping will be presented at a November 2013 Symposium in Copenhagen. The purpose of the Symposium is to evaluate and assess recommendations for CSR uptake in the shipping industry as a means of supporting progress on commitments to sustainable development made by the international maritime sector at the 'Rio+20' UN Conference on Sustainable Development held in Brazil in 2012. The Copenhagen Symposium on CSR in shipping is being convened by the Nippon Foundation (NF), the Japan International Transport Institute (JITI), the Baltic and International Maritime Council (BIMCO), the World Maritime University (WMU), and the Danish Shipowners' Association (DSA). <br><br> *Information on the November 2013 CSR Symposium in Copenhagen is available at* http://wmu.se/csr2013. *Information on Rio+20 Commitments to Sustainable Maritime Development is available at this link.* |
| **Next Steps** | Decisions regarding next steps to be made by maritime industry representatives attending the November 2013 CSR Symposium in Copenhagen. |

| 2. | Feedback on Draft CSR Framework (10 min.) |
|---|---|
| CSR Framework | Please provide feedback on the Draft CSR Best Practice Framework available at this link. Are any social and environmental key performance areas missing? What changes do you recommend? |

| 3. | Feedback on Gap and Convergence Analysis (10 min.) |
|---|---|
| Preliminary Research Findings | Please provide feedback on the preliminary research findings (please refer to Appendix A pages 3 - 4 for the preliminary findings). Do the gap and convergence trends reflect your understanding of the state of private and public sustainability regulations and standards? Are the findings valid? What are the implications of the findings to advance CSR progress in the shipping sector? |

| 4. | Recommendations: Priority areas for voluntary industry action (10 min.) |
|---|---|
| Best Management Practices | Create a consolidated guide to CSR implementation that builds upon the maritime sector's Rio+20 commitment to sustainable development and the CSR Framework for the shipping industry developed and tested for this research project. Identify further opportunities for industry associations and their member companies to develop (1) company-level environmental and social sustainability metrics and targets; (2) measurement systems for participating companies and industry associations to track, report, benchmark and improve performance; and (3) stakeholder engagement best management practices. |

| 5. | Recommendations: Priority areas for coordination (10 min.) |
|---|---|
| Cross-Sectoral Collaboration | Explore opportunities to encourage cross-sectoral [i.e. public, private and civil society sectors, and range of supply chain actors] collaboration at the global level between regulatory and voluntary initiatives and leading research organizations active on social and environmental performance initiatives in the maritime sector. The purpose of the collaboration would be to enable participants to identify, focus and direct resources to priority issues and areas. It should include key parties and influencers and be designed to improve understanding of the dynamic between international, regional, national and local regulatory and voluntary initiatives. |

| 6. | Other Questions/ Comments: (10 min.) |
|---|---|
| Final Feedback | Do you have additional feedback on this interview or project? |

## Attachment I

| Feedback on Gap and Convergence Analysis (10 min.) |
|---|
| Please provide feedback on the preliminary research findings below. Do the gap and convergence trends reflect your understanding of the state of private and public sustainability regulations and standards? Are the findings valid? What are the implications of the findings to advance CSR progress in the shipping sector? |

## Attachment I: CSR & Global Shipping: Regulatory Gap and Convergence Assessment Preliminary Findings

The maritime shipping sector is facing growing social and environmental regulations and advocacy pressures that are transforming technologies and shifting business practices. The emerging sustainability regulatory landscape includes both public and private governance measures. Understanding it is increasingly critical for sustained industry competitiveness.

The objective of this study is to improve understanding of the implications of the rise of voluntary corporate social responsibility (CSR) collaborative initiatives, both in terms of the sustainability issues addressed by these initiatives and the interaction between voluntary CSR activities and international shipping regulations.

The research focuses on 4 main questions:
- How do the leading voluntary CSR initiatives (Attachment II) address environmental, social, CSR governance and ocean governance sustainability concerns?
- What are the gaps or convergences in the issues addressed?
- How do the CSR initiatives align with international regulations (IMO, ILO, etc.) (Attachment III)?
- To what extent do voluntary CSR initiatives complement and/or go beyond international regulatory compliance requirements?

**Findings (preliminary)**

Drawing on our evaluation of 9 identified leading CSR collaborative initiatives in the shipping sector, preliminary findings highlight 7 main points (with supporting evidence under development):

CSR initiatives are:
1. Focused primarily on environmental issues and underweight social concerns.
2. Convergent on particular sustainability governance concerns such as the need for greater transparency and disclosure, data management (metrics, benchmarking), stakeholder engagement, and the requirement for formalized sustainability management systems.
3. Fragmented and overlapping.
4. Beginning to work together.
5. Encouraging marine sector collaborations and supply chain and multi-stakeholder engagement.
6. Reinforcing and facilitating the implementation of IMO environmental regulations and guidelines (providing the international rules with 'legs to walk on').
7. Going beyond IMO and raising the bar on environmental sustainability performance.

**Conclusions (preliminary)**

Specific challenges in managing environmental and social sustainability risks and performance in the maritime sector include the high level of fragmentation and lack of coordination in regulations within and across international, regional, and national levels.

The rise of voluntary industry-led corporate social responsibility initiatives and standards is adding further complexity. It is resulting in an even more hybridized multi-level and multi-actor regime but also presenting opportunities to improve efficiency, manage risk, reduce business transaction costs, attract and retain employees, maintain and grow access to capital and markets, and enhance brand and reputation.

## Attachment II: Examples of Global Shipping CSR Collaborations and Initiatives

- Sustainable Shipping Initiative
  http://www.forumforthefuture.org/project/sustainable-shipping-initiative/overview
- Clean Cargo Working Group http://www.bsr.org/en/our-work/working-groups/clean-cargo
- Green Marine http://www.green-marine.org/home
- Green Ship of the Future http://www.greenship.org/
- Green Award http://www.greenaward.org/
- World Ports Climate Initiative http://wpci.iaphworldports.org/
- World Ocean Council http://www.oceancouncil.org/site/
- ShippingEfficiency.org http://shippingefficiency.org/
- Clean Shipping Project http://www.cleanshippingindex.com/

## Attachment III: International Shipping Sustainability Regulation

Sustainability issues (environment, health and safety) in the maritime sector are regulated at the international, regional, national and local levels. The four major pillars of the international regulatory regime include:

- MARPOL: International Convention for the Prevention of Pollution from Ships (IMO)
- SOLAS: Safety of Life at Sea Convention (IMO)
- STCW: International Standards of Training, Certification and Watch Keeping for Seafarers (IMO)
- Maritime Labour Convention (IL0)

**Reference:**

For relevant IMO conventions see:

http://www.imo.org/About/Conventions/ListOfConventions/Pages/Default.aspx.

For relevant ILO standards see:

http://www.ilo.org/global/standards/maritime-labour-convention/lang--en/index.htm).

# APPENDIX D: CSR FRAMEWORK FOR THE SHIPPING INDUSTRY
## PHASE 1 DRAFT CSR IN SHIPPING FRAMEWORK 2012
### KEY PERFORMANCE AREAS (KPAs)

| CSR GOVERNANCE | Aspects & Impacts | |
| --- | --- | --- |
| **Governance and Management Systems** | • Corporate governance<br>• CSR governance and management system<br>• Transparency and disclosure | • Stakeholder engagement<br>• Sustainable procurement |
| **Ethical Business Practices** | • Anti-corruption and bribery<br>• Human rights | • Sensitive regions<br>• Container content |

| SOCIAL RESPONSIBILITY | | |
| --- | --- | --- |
| **Employee Well-being** | • Health and safety<br>• Training and education<br>• Diversity & equity | • Family welfare<br>• Labour and living conditions, wages and benefits<br>• Responsible downsizing and closure |
| **Security** | • Ship, cargo and personnel security | |
| **Local Socio-economic Development** | • Community involvement<br>• Local socio-economic development | • Local hiring<br>• Local sourcing |
| **Community Impacts** | • Congestion<br>• Displacement | • Noise, dust, odours and luminous pollution |
| **Disaster Relief** | • Humanitarian aid<br>• Infrastructure rebuilding | • Environmental clean-up & rehabilitation |
| **Inclusive Trade** | • Trade access for under-served and vulnerable markets, producers and regions<br>• Millennium Development Goals | |

| ENVIRONMENTAL RESPONSIBILITY | | |
| --- | --- | --- |
| **Environment** | • Energy and fuel efficiency<br>• GHG and air pollutants<br>• Renewable energy<br>• Waste<br>• Vessel discharges<br>• Spill and leakage prevention | • Invasive species<br>• Marine mammals and cetaceans<br>• Underwater noise<br>• Ship and container life cycle design<br>• Ship-breaking<br>• Materials and natural resource use |

| OCEAN RESPONSIBILITY | | |
| --- | --- | --- |
| **Industry Environmental Performance** | • Industry collaboration and partnerships<br>• Port environmental impacts | |
| **Ocean Governance** | • Use and access rights and responsibilities<br>• Marine protected areas and ecosystems<br>• Research & public education on ocean and coastal health | • Multi-stakeholder collaboration<br>• Regulations and standards |

# Appendix E: Phase 2 Feedback and Edits to Phase 1 Draft CSR in Shipping Framework

**Based on 2013 Interviews with Representatives from Shipping Industry Perspective**

| List of Edits to Phase 1 CSR in Shipping Framework as a result of Feedback from Phase 2 Interviewees |
| --- |
| Anti-corruption and bribery change to Anti-corruption, bribery and government payment disclosure |
| Change container content to cargo content |
| Security: add Anti-piracy |
| Community impacts: add Land use impacts |
| Community impacts: add Community health and safety |
| Community impacts: add Infrastructure |
| Community impacts: delete displacement |
| Spill and leakage prevention: add and response |
| Change ship breaking to ship recycling |
| Change Ocean responsibility to Collaborative responsibility |
| Change Industry Environmental Performance to: Industry CSR Performance |
| Change Port environmental impacts to Port, customer and supplier CSR impacts |
| Industry CSR Performance: add Life cycle analysis of goods movement |
| Marine protected areas and spatial planning |
| Vessel discharges and ballast water |
| Delete sustainable procurement from governance and management system |

# APPENDIX F: CSR FRAMEWORK FOR THE SHIPPING INDUSTRY
## PHASE 2 REVISED CSR IN SHIPPING FRAMEWORK 2013
### KEY PERFORMANCE AREAS (KPAs)

## ENVIRONMENTAL RESPONSIBILITY — Aspects & Impacts

**Environment**

- Energy and fuel efficiency
- GHG and air pollutants
- Renewable energy
- Waste
- Vessel discharges
- Spill and leakage prevention and response
- Invasive species
- Marine mammals and cetaceans
- Underwater noise
- Ship and container life cycle design
- Ship-recycling
- Materials and natural resource use

## SOCIAL RESPONSIBILITY

**Employee Well-being**

- Health and safety
- Training and education
- Diversity & equity
- Family welfare
- Labour and living conditions, wages and benefits
- Responsible downsizing and closure

**Security**

- Ship, cargo and personnel security
- Anti-piracy

**Local Socio-economic Development**

- Community involvement
- Local socio-economic development
- Local hiring
- Local sourcing

**Community Impacts**

- Congestion
- Community health and safety
- Infrastructure
- Noise, dust, odours and luminous pollution
- Land use impacts

**Disaster Relief**

- Humanitarian aid
- Infrastructure rebuilding
- Environmental clean-up & rehabilitation

**Inclusive Trade**

- Trade access for under-served and vulnerable markets, producers and regions
- Millennium Development Goals

## CSR GOVERNANCE

**Governance and Management Systems**

- Corporate governance
- CSR governance and management system
- Stakeholder engagement
- Transparency and disclosure

**Ethical Business Practices**

- Anti-corruption, bribery & government payment disclosure
- Human rights
- Sensitive regions
- Cargo content & security

## COLLABORATIVE RESPONSIBILITY

**Industry CSR Performance**

- Industry collaboration and partnerships
- Port, customer and supplier CSR impacts
- Vessel discharges and ballast water
- Life cycle analysis of goods movement
- Marine protected areas and spatial planning

**Ocean Governance**

- Use and access rights and responsibilities
- Marine protected areas and ecosystems
- Research & public education on ocean and coastal health
- Multi-stakeholder collaboration
- Regulations and standards

# Appendix G: Voluntary CSR Collaborations and Initiatives

| Voluntary CSR Initiative | Aims |
|---|---|
| **Sustainable Shipping Initiative** | The overall aims of the Sustainable Shipping Initiative are: to show leadership in the industry; to identify big challenges the industry is facing; and to come up with innovative ways to overcome those challenges and scale them up in the industry. SSI initiatives derive from their May 2011, Case for Action which addressed key challenges that the shipping industry faces, such as a potential contraction in world trade, rapid changes in routes and markets, rising fuel costs, oversupply of vessels with obsolete technology, restricted investment in new technologies and growing scrutiny of the industry's social and environmental performance. The SSI has identified the need to be leaders in developing methods for shipping's stakeholders to compare sustainability performance in order to drive sector-wide improvements. This includes the need to encourage shipping customers to make sustainability performance a key factor in selection and to promote global adoption across the supply chain of an agreed set of performance standards. |
| **Clean Cargo Working Group** | CCWG is a global, industry-based organization (ocean freight carriers and their customers) aiming to improve the environmental performance of marine transportation through collaborative efforts. It aims to encourage improved industry transparency by encouraging greater communication between carriers and cargo owners. It has been operating for more than a decade and represents the industry's largest collaborative effort to measure and report on environmental performance. The participants (32 members that move more than 60% of global container cargo) have developed and created various tools in order to measure, report and benchmark a shipper's performance. These include: an Environmental Performance survey; and a tool to calculate and review a carrier's 'ocean transport carbon Footprint', and compare the company's environmental performance with other members in CCWG. Carriers are assessed on a scorecard basis including: greenhouse gas emissions, waste, water and chemicals management; transparency and an environmental management system. CCWG tools are informed by state efforts including IMO and US EPA SmartWay; and private CSR efforts: WRI GHG Protocol, GRI, World Shipping Council, and Clean Shipping. The CCWG currently reports environmental performance data on 2000 ships from 13 of the world's biggest shipping companies. |
| **Green Marine** | Green Marine provides a ranking system with the aim to improve the environmental performance of the North American shipping industry. Through collaborative efforts, Green Marine is assisting companies in the shipping sector (ports, terminals, ship yards, and shipping lines) to implement environmental standards in 9 major areas of concern: aquatic invasive species, S0x, PM and N0x emissions, GHG, cargo residues, oily waters, community impacts, environmental leadership, waste management, and prevention of spills and leakage. Companies are evaluated and expected to adopt best practices in these areas that go beyond regulatory compliance and demonstrate continuous improvement. The Green Marine Environmental Program has 4 steps: evaluation, external verification, publication of results and certification. Performance is graded on a scale of 1 (basic compliance) to 5 (excellence and leadership). Green Marine communicates to members through various publications (including an annual progress report) and an annual conference open to all stakeholders associated with the marine shipping industry. |

| Voluntary CSR Initiative | Aims |
|---|---|
| **Green Ship of the Futuree** | Green Ship of the Future is a Danish public-private membership-based organization that brings together members of the Danish maritime industry. To become a member, the company must be linked to the Danish maritime industry and also have efforts in air emission reductions within their operations. Green Ship of the Future's vision is to create environmentally sound ships through technology and innovation. The organization's main focus areas include: ship design, machinery, propulsion, operations and logistics. |
| **Green Award** | Green Award is a non-profit independent organization that aims to promote the safe and environmentally friendly behaviour of ship and crew/management through 'Green Award' certification. A ship is awarded certification on meeting certain environmental criteria that are better than the legislative minimum.  The Green Award organization promotes ships that are clean and safe through a 3-year certification that is verified annually. Ships that are eligible include oil, chemical and LNG tankers; dry bulk carriers and inland navigation vessels. Green Award not only awards ships for their high environmental standards but it also gives various incentives including a reduction on port fees.  Green Award requirements are in observance with international conventions. |
| **World Ports Climate Initiative** | World Ports Climate Initiative is a collaborative effort that includes 55 ports from all around the world. WPCI aims to raise awareness in the maritime industry of the need for improved environmental standards.  In order to achieve this, they are providing a platform for information sharing among players in the industry. |
| **World Ocean Council** | World Ocean Council is made up of organizations from diverse industries with the common goal of science-based "Corporate Ocean Responsibility." This group not only includes shipping but also oil and gas, tourism, ports, financial, insurance, pipelines and others. Challenges the organization has focused on include invasive species and mammal impacts. The organization is a member-based organization that offers information, collaboration and participation in meetings, studies, and conferences. |
| **ShippingEfficiency.org** | Shippingefficiency.org offers a rating system with the aim to provide information and improve energy efficiency in relation to maritime operations. Through these efforts of information sharing and awareness, the organization aims to reduce emission from ships. 60,000 ships are currently rated (on an A to G scale). The rating pulls data from the IMO EEDI and the IHS Fairplay ship registry. The organization has implemented a rating system 'RightShip' that is unrelated to the CCWG methods of air emission calculations or the World Ports Climate Initiative Environmental Ship Index rating. |
| **Clean Shipping Project** | The Clean Shipping Project's overall aim is to provide a simple means for cargo owners to evaluate shipping companies and for the carriers to verify, benchmark and improve their environmental performance. The Clean Shipping Index (CSI) provides information (high, medium, low rating) on the environmental performance (S0x, N0x, PM, C02, chemical usage, waste management, discharges and ballast water management) of entire carriers and individual ships.  31 cargo owners currently use the CSI in their procurement process. The CSP produces an Annual Feedback report on general performance, benchmarking information, performance on specific routes, and improvement suggestions. Carriers using the Index are part of a Clean Shipping Network that provides a platform for the sharing of knowledge. |

**Reference:**

For further information see

- Sustainable Shipping Initiative
  http://www.forumforthefuture.org/project/sustainable-shipping-initiative/overview
- Clean Cargo Working Group http://www.bsr.org/en/our-work/working-groups/clean-cargo
- Green Marine http://www.green-marine.org/home
- Green Ship of the Future http://www.greenship.org/
- Green Award http://www.greenaward.org/
- World Ports Climate Initiative http://wpci.iaphworldports.org/
- World Ocean Council http://www.oceancouncil.org/site/
- ShippingEfficiency.org http://shippingefficiency.org/
- Clean Shipping Project http://www.cleanshippingindex.com/

# Appendix H: International Regulation on Sustainable Shipping

Sustainability issues (environment, healthy and safety) in the maritime sector are regulated at the international, regional, national and local levels. The four major pillars of the international regulatory regime include:

- MARPOL: International Convention for the Prevention of Pollution from Ships (IMO)
- SOLAS: Safety of Life at Sea Convention (IMO)
- STCW: International Standards of Training, Certification and Watch Keeping for Seafarers (IMO)
- Maritime Labour Convention (IL0)

## Environment

Maritime environmental pollution issues are regulated primarily under the International Maritime Organization's MARPOL (International Convention for the Prevention of Pollution from Ships) protocol and the accompanying 6 annexes:

- Annex I – Oil
- Annex II – Noxious Liquid Substances carried in Bulk
- Annex III – Harmful Substances carried in Packaged Form
- Annex IV – Sewage
- Annex V – Garbage
- Annex VI – Air Pollution

MARPOL regulations under each Annex are aimed at preventing and minimizing pollution from ships. MARPOL Regulatory amendments are the responsibility of the IMO's Marine Environment Protection Committee.

## Health & Safety

Maritime safety issues are regulated primarily under the IMO SOLAS (*Safety of Life at Sea*) convention. SOLAS requires that ships comply with minimum safety standards in construction, equipment and operation. The SOLAS annex includes 12 chapters. In particular, Chapter IX - Management for the Safe Operation of Ships mandates adoption of the *International Safety Management (ISM) Code* that requires the ship owner to establish a safety management system.

SOLAS regulatory amendments are the responsibility of the IMO's Maritime Safety Committee.

The safety and rights of seafarers are protected under the International Labour Organization's Maritime Labour Convention. This convention is complemented by the IMO's *International Standards of Training, Certification and Watch Keeping for Seafarers (STCW) Convention*.

**References**
For relevant IMO conventions see:
http://www.imo.org/About/Conventions/ListOfConventions/Pages/Default.aspx.
For relevant ILO standards see:
http://www.ilo.org/global/standards/maritime-labour-convention/lang--en/index.htm).

# About the Research Team

**Linda Coady** has 25 years of experience working with business, government, non-government organizations and local communities on corporate social responsibility (CSR) and sustainability issues. She has led initiatives to improve social and environmental performance in the Canadian forest industry and is a former Vice President of World Wildlife Fund Canada (WWF-Canada). From 2005 to 2010 she was Vice President of Sustainability for the Vancouver Organizing Committee for the 2010 Winter Olympic and Paralympic Games. Linda's work has been recognized with awards from Canadian Business for Social Responsibility, the Ecological Society of America and the Globe Foundation on Business and Environment. From 2010 to 2012 she was a Distinguished Fellow at the Liu Institute for Global Issues at the University of British Columbia where she led the research collaboration between UBC and the Nippon Foundation on CSR in shipping. Ms. Coady is currently Chief Sustainability Officer for Enbridge, Inc., a leading North American supplier of transportation and distribution systems for oil, gas and renewable energy. http://www.ligi.ubc.ca/csr_shipping.htm

**Dr. Jane Lister** is a Senior Research Fellow at the Liu Institute for Global Issues at the University of British Columbia. She holds a PhD in resource management (UBC), an MBA in corporate strategy (Sauder), and an honours BA in economics and environmental studies (Toronto). Dr. Lister's research focuses on corporate social responsibility (CSR) and global environmental governance with a particular interest in global supply chain sustainability management. She is the author of several peer-reviewed articles and 3 books including Eco-business: A Big-Brand Takeover of Sustainability (with Peter Dauvergne) released by The MIT Press in 2013. Prior to her doctoral studies, Dr. Lister was an internationally-designated sustainability auditor and management consultant with PricewaterhouseCoopers, and an environmental policy analyst with the Ontario provincial government. http://www.ligi.ubc.ca/?p2=/modules/liu/profiles/profile.jsp&id=58

**Coro Strandberg** is the Principal of Strandberg Consulting. Ms. Strandberg is a nationally recognized sustainability and corporate socially responsibility (CSR) strategist in Canada.  With a 25 year track record in CSR, she helps companies gain business and societal value from becoming sustainability leaders in their industry and regions.  She has been named one of Canada's Clean 50 for her role advancing CSR in Canada. One of her clients has been recognized as one of the top three corporate citizens in Canada since 2010.  She conducts global research on trends to embedding sustainability into business models and strategies, such as the global Qualities of a Transformational Company. Ms. Strandberg specializes in developing supply chain and industry association solutions to advance sustainability across regions, sectors and industries and has published research and guidelines on this issue. http://corostrandberg.com/

**Dr. Yoshitaka Ota** is a social anthropologist and the Co-Director of the Nereus Program at the University of British Columbia Fisheries Centre. The Nereus Program is an interdisciplinary research initiative developing new models and scenarios to help predict the future of the world's oceans. Dr. Ota leads the program with Dr. William Cheung and Dr. Daniel Pauly and is supported by a network of Research Fellows from affiliated Universities, including the University of Cambridge, the Stockholm Resilience Centre, Duke University, and Princeton University. Dr. Ota conducts research on human dimensions of global fisheries issues and ocean governance, including corporate social responsibility (CSR) in shipping and the implementation of marine spatial planning. He has extensive fieldwork experience in global coastal communities, including in Palau, the English Channel, Indonesia, Australia and Japan, which has developed his interest in theoretical and methodological perspectives on marine, environmental and socio-economic issues. http://www.fisheries.ubc.ca/faculty-staff/yoshitaka-ota