



WWF

BRIEFING

MARCH
2012

Sustainability

Shipping and sustainability

Based on the Global Sustainable Shipping Initiatives report for WWF



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Bulk container ship in the coastal waters near Prince Rupert, British Columbia, Canada.

Introduction

Sustainable transport is recognised as one of the biggest challenges of the 21st century. It is accepted that whilst shipping is relatively safe and clean, compared with other transport modes, the industry does have a significant impact on the environment.

As shipping is a global industry, responsible for the transportation of approximately 90 per cent of world trade, the impacts of increasing pollution and illegal discharges are felt worldwide. However, shipping is subject to less stringent environmental demands than those placed on land-based transportation and business even though the sector continues to be responsible for producing large amounts of greenhouse gasses like carbon dioxide.

The precautionary principle, sustainable development policies and ideals, greater public concern about global environmental issues and pressure from other sectors all serve to reinforce the need for the industry to behave in a more sustainable manner.

To an extent this is being achieved through the Marine Environmental Protection Committee of the International Maritime Organisation (IMO) using legislative instruments, codes and guidance. The IMO is the United Nations' agency responsible for the safety and security of shipping and the prevention of marine pollution by ships.

Significant progress has been made in terms of effective environmental management, with the consensus of the wider shipping industry, but much of it is reactive and based on a command and control philosophy.

With global legislation slow to address these issues, a number of initiatives, generally focusing on specific environmental shipping issues, have been developed. This has resulted in country specific solutions rather than a coordinated, standardised sustainable approach which looks at shipping in a holistic manner.



90 %

SHIPPING IS RESPONSIBLE FOR THE TRANSPORTATION OF APPROXIMATELY 90 PER CENT OF WORLD TRADE.

What are sustainable shipping initiatives?

Within the last decade a number of proactive efforts to encourage environmental management improvements within the shipping industry have emerged. These have been referred to as sustainable or green shipping initiatives.

The initiatives are diverse but can be grouped by the following:

Research and innovation

These initiatives are aimed at reducing or removing harmful environmental emissions, and include investment into research and technological design to make ships safer and more sustainable.

Case study: Eco Ship Project NYK's Super Eco Ship 2030 is a concept ship viewed as the 'container vessel of the future' after winning Japan's Good Design Award in 2009. The Eco Ship aims to cut carbon dioxide emissions by reducing the amount of energy required to propel it by lowering the weight and drag of the vessel. It will also be equipped with new environmental technologies such as fuel cells and renewable energy sources including solar and wind power and navigational improvements which collectively should reduce its carbon dioxide emissions by 69 per cent.

Corporate Social Responsibility and marketing

The European Commission defines Corporate Social Responsibility (CSR) as,

"A concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis."

Shipping operating to high environmental standards can achieve indirect benefits such as company promotion, through improving the company's image. CSR is usually incorporated into the company's marketing strategy.

Case study: The Voluntary Carbon Standard – The global Voluntary Carbon Standard has been developed to reduce emissions of greenhouse gases through consultation

DEFINITION OF SUSTAINABILITY

Defining sustainability is not straight forward but it is important to establish a shared understanding of what is meant by the term. In 1987 the World Commission on Environment and Development developed a definition of sustainability that was subsequently incorporated into the Brundtland report (1987). It stated that:

'Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs.'

Although this definition is widely accepted, the term sustainability is not limited to one concise definition. However in the context of sustainable development, three key areas emerge, which are identified by the pillars of sustainability and include the environment, economics and society (DESA, 2011).

Organisations such as WWF additionally argue that governance is a factor that influences all these three areas.

with global experts over a five year period. It provides a new global standard for voluntary carbon offsetting projects for both businesses and consumers. The carbon accounting system used has established 'fundamental principles and requirements for accounting for real and verified greenhouse gas emission reductions and credits'. It aims to be the 'global benchmark standard for project based voluntary emission reductions'. In order to achieve this it provides a set of criteria which is both credible and uncomplicated. To meet the Voluntary Carbon Standard an emission reduction project must be verified, registered and meet the 10 minimum threshold criteria.

Awareness raising and environmental education

Initiatives aimed at educating and raising awareness, encouraging environmental management improvements across the sector.



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Case study: PROSea Foundation - The ProSea Foundation was established in 2001 and is a leading Dutch training and education organisation specialising in marine awareness courses for people who live and work at sea. The training focuses on ecological and financial sustainability within the daily practice of the marine industry and the links to stakeholders. PROSea's training approach is based around seven principles, 'because marine awareness is more than knowledge, raising that awareness and challenging attitudes requires a thorough and participatory approach'.

Voluntary class notations and certifications

Environmental class notations provided by the different classification societies help to improve environmental safety design, construction and practice. During their annual surveys, the classification societies can review the certification and the environmental performance of the ship.

Case study: Green Star - Green Star class notation is the scheme promoted by the Royal Institution of Naval Architects (RINA) who in 2000 recognised the importance of maintenance and on-board responsibilities. The Green Star scheme has both a Clean Sea and a Clean Air element. Initial take up of these schemes has been by cruise lines whose new ships incorporate low emission gas turbines, advanced waste management systems, protected fuel tanks and the use of non-toxic anti-fouling hull coatings.

All of these initiatives are of a voluntary nature and designed to go beyond legal compliance with environmental regulation.

There are a number of reasons driving these initiatives in addition to decreasing natural resources and increased fuel prices which also have a major role to play.

Economic benefits

Economic benefits reward good environmental shipping operations and practices that go beyond legal compliance. The rewards are varied but often include reduction of fairway and harbour costs.

CSR and marketing

CSR is concerned with the success of a company with respect to ethical values, people, communities and the environment. Leading edge companies will attract ethical business; environmental efficiency is strongly linked with safety; a relationship with environmental regulators is important and corporate sustainability reporting relies on good news and continual progress.

Environmental protection

Shipping operations that maintain a healthy environment are of benefit to the greater human good and the shipping industry as a whole, particularly as awareness grows with respect to climate change and the need for 'green credentials'.

Environmental awareness through education in sustainable shipping is increasingly valued. Seafarers need to understand the fundamental concepts of green shipping in order to bring about a change in ethos and approach to cleaner shipping

Shipping and international regulation/compliance

Sound environmental management reduces the risk of fines and law suits. Specific liability improvements can be recognised by insurers and other service industries and cost savings are possible particularly when attention is given to avoiding or minimising waste, and increasing operating efficiency.



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Global Sustainable Frameworks

It is recognised that global sustainable frameworks already exist in other industries which can provide useful examples of best practice for the shipping industry as they strive to develop their own framework.

The Marine Stewardship Council

The Marine Stewardship Council (MSC) is an independent non-profit organization which operates a fishery certification and ecolabel programme. Fisheries that meet the MSC standard are eligible to use the MSC ecolabel. The mission is to reward sustainable fishing practices and through their ecolabelling help consumers make sustainable choices when purchasing seafood.

Forest Stewardship Council

The Forest Stewardship Council (FSC) is another global non-profit organisation established in 1993. The FSC is an international association of forestry stakeholder members promoting responsible management of the world's forests through tools such as standard setting, independent certification and labelling of forest products.

In a similar way to the MSC, the FSC customers can choose products from socially and environmentally responsible forestry using the logo which guarantees customers that the product comes from responsible sources that are 'environmentally appropriate, socially beneficial and economically viable'.

Green Globe

Green Globe was founded on the sustainable development principles set out by Agenda 21 at the Rio Earth Summit in 1992 during which an action plan was drawn up for the travel and tourism industry. In 1994, The World Travel and Tourism Council established the Green Globe programme in order to provide support and guidance for industry stakeholders trying to achieve sustainable outcomes which was expanded to incorporate the Green Globe Standard which included criteria and indicators as well as a web based certification system and independent auditing.



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FSC logo painted on sustainable harvested logs. Uzachi forest, Oaxaca, Mexico

Conclusion

Over the last decade many sustainable shipping initiatives have come into being with a notable increase in those that fall into the high-investment research and innovation category and those driven by CSR.

Regulation and environmental protection remain key drivers of initiatives but the economic bottom line is still dominant and needs to be targeted in efforts to deliver any sustainable shipping standard. The proliferation, variety, and ad-hoc way in which these initiatives have developed makes it difficult for industry to identify best practice and agree on a united way forward.

Despite the general increase in initiatives there are still few that consider the entire lifecycle of a ship and its operational footprint, yet these have an advantage in being able to deliver a coordinated cost-effective response to sustainable shipping without the risk of duplication.

Currently sustainable shipping initiatives are predominantly piecemeal, and there is a need for incentives to be rationalised, effectively articulated and presented as an accessible package.



For more information

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Why we are here

To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

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