• While historically under the radar, shipbreaking, the process of dismantling end-of-life vessels for scrapping or disposal has become a target of stakeholder scrutiny. Its adverse environmental and social impacts include poor working conditions, child labour and environmental damage. Beaching, the most controversial form of shipbreaking, remains the most commonly used method in South Asia.

• Controversial shipbreaking not only implicates the shipping and dredging industries, but a range of other industries from consumer services to utilities. Among the most exposed stock-listed companies are marine transportation companies such as Odfjell SE and Mitsui OSK Lines Ltd, and consumer services company, TUI AG. With few exceptions, overall preparedness across these industries is limited.

• Various conventions have explicitly addressed the issue of shipbreaking, further amendments and ratifications to which pose regulatory implications for companies. Meanwhile, the European Parliament may begin imposing penalties on EU ship owners who send their vessels for dismantling in the developing world, reflecting its toughening stance on controversial shipbreaking.

• Pressure from stakeholders is increasing, resulting in reputational risks for companies. Banks that have financed controversial shipbreaking activities have also been explicitly targeted. Some companies have already committed to ending beaching and adopting best practices, yet the vast majority continue to send their end-of-life vessels to South Asia to be dismantled using controversial methods.

Understanding Shipbreaking

Shipbreaking is the process of dismantling vessels for scrap recycling or disposal. While some other alternatives for ship disposal exist (e.g., deep water sinking and floating storage), the dismantling of a vessel is more attractive from an economic point of view because it allows materials such as steel to be recycled. The shipbreaking process, which includes the removal of equipment, deconstruction of a vessel, and recycling-related activities, involves a number of different players, including ship owners, ship brokers and the companies that finance their activities. When a vessel ages and maintenance costs become too
high for the owner (typically after 20 years) it may be sold to a ship breaker, either directly or indirectly through a broker or cash buyer. The sale price of a vessel is closely linked to factors such as the ship’s empty weight, defined as its light displacement tonnage (LDT) and prices in the scrap metal market. It is estimated that a 25-year-old container vessel with an empty weight of 10,000 LDT is worth approximately USD five million.¹

**Methods Used**

Ship breakers currently use four methods to dismantle vessels, which vary in their regional application and degree of environmental impact.

- **Beaching** remains the most commonly used method, employed by 95 per cent of shipbreaking yards.² This method consists of deliberately crashing a vessel onto a beach so that it can be dismantled during low tide. Beaching is considered the most controversial method of shipbreaking due to the overall lack of containment.

- The **slipway method** is somewhat similar to beaching because it also takes place on beaches. However, slipway recycling occurs at locations where there is no tide (like in the Mediterranean) making it easier to predict and control accidental spillages.

- With the **top-down approach** (also called the quayside or buoy approach), the vessel is secured along a quayside and pieces are removed by crane, starting with the upper section. Because dismantling of all pieces is done from above, the risk that pieces will come in contact with sea water and pollute the environment is limited.

- Finally, in the **drydock approach**, which is considered the cleanest and safest method, the ship is docked and dismantled. Once the ship is completely dismantled, the dock is cleaned and flooded again for the next vessel. The dock prevents accidental spillages into the sea.

**Exposure to Controversial Shipbreaking**

**Countries Implicated**

Today, three countries monopolize global shipbreaking activities: Pakistan, India, and most notably, Bangladesh. In Bangladesh, the shipbreaking industry is highly competitive with profit margins of up to 16 per cent.³ The lack of enforcement of environmental and safety legislations in these three countries together with low labour costs and favourable geographical settings have contributed to the success of the industry. Turkey and China, with somewhat more stringent environmental and safety regulations, account for approximately 25 per cent of shipbreaking activities. Whereas beaching is most widely used in South Asia, Turkish shipyards usually adopt the slipway method, while China typically employs the quayside approach.

Shipbreaking yards in the European Union and North America follow the most stringent social and environmental regulations and use the most sustainable methods (i.e. the drydock or quayside methods), but their capacity is underutilized since profit margins for ship owners tend to be higher if the vessel is sold to a non-OECD country. In November 2012, US-based NGO Basel Action Network (BAN) released a report on industrial shipbreaking capabilities in North America, concluding that the North American market had the capacity to dismantle 803,000 LDT per year, with an estimated 389,000 LDT of underutilized capacity.⁴ Meanwhile the European/Turkish shipbreaking market, whose capacity is 1,007,000 LDT per year, cannot cope with the flow of EU-flagged end-of-life ships, which is projected to reach 1,640,000 LDT
in subsequent years according to the European Union. North America’s underutilized capacity could accommodate 61 per cent of the current annual excess of EU-flagged tonnage, but there is still uncertainty on whether companies could be incentivized to send their ships to North America.

In March 2013, the European parliament accepted a proposal to create a ship recycling fund to finance greener and safer shipbreaking yards worldwide. Although not yet approved, this proposal will put an additional financial burden on EU ship owners as they will have to pay an extra fee to dismantle their vessels in South Asia. Though next steps and timelines remain unclear at this time, it is evident that, as home to some of the world’s largest ship owners, the EU has a key role to play in promoting a more sustainable shipbreaking industry.

**Ship Owners Implicated**

While spanning a wide range of industries, the ship owners most highly implicated in shipbreaking all own an extensive fleet of vessels. These companies can typically be found in seven industries: transportation (mainly marine transportation and integrated logistics companies), construction and engineering (especially dredging companies), energy equipment and services, oil and gas consumables, utilities (especially liquefied natural gas or liquefied petroleum gas tanker operators), aerospace and defence (mainly suppliers to the navy), and consumer services (mainly cruise line operators).

Whereas the shipbreaking methods adopted in each region vary, the most controversial methods are deployed in Bangladesh, India and Pakistan. The table below identifies stock-listed ship owners which stand out among their peers for the high number of vessels sent to these three countries by their European subsidiaries in the period between 2010 and 2012. A more detailed list of companies tracked in Sustainalytics’ platform exposed to shipbreaking in South Asia is included in Appendix 1.

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Industry</th>
<th>Country</th>
<th># Vessels Sent</th>
</tr>
</thead>
<tbody>
<tr>
<td>China COSCO Holdings Company (SEHK:1919)</td>
<td>Marine Transportation</td>
<td>Hong Kong</td>
<td>5</td>
</tr>
<tr>
<td>Mitsui OSK Lines Ltd. (TSE:9104)</td>
<td>Marine Transportation</td>
<td>Japan</td>
<td>7</td>
</tr>
<tr>
<td>Nippon Yusen Kabushiki Kaisha (TSE:9101)</td>
<td>Marine Transportation</td>
<td>Japan</td>
<td>5</td>
</tr>
<tr>
<td>Odfjell SE (OB:ODF)</td>
<td>Marine Transportation</td>
<td>Norway</td>
<td>13</td>
</tr>
<tr>
<td>Royal Boskalis Westminster (ENXTAM:BOKA)</td>
<td>Construction &amp; Engineering</td>
<td>Netherlands</td>
<td>4</td>
</tr>
<tr>
<td>STX Pan Ocean Co., Ltd. (KOS: A028670)</td>
<td>Marine Transportation</td>
<td>South Korea</td>
<td>5</td>
</tr>
<tr>
<td>TUI AG (DB:TUI1)</td>
<td>Consumer Services</td>
<td>Germany</td>
<td>7</td>
</tr>
</tbody>
</table>

Examples of privately held ship owners include MSC, CMA CGM, Precious Shipping, PT Berlian Laju Tanker, Crowley Maritime Corporation and Varsha Marine. Switzerland-based MSC is particularly exposed as 23 of its vessels were sent to South Asia in 2012 alone.
Environmental & Social Impacts

Environmental Impacts

Like other industrial activities, shipbreaking activities result in significant environmental impacts. Not only do the vessels themselves contain hazardous materials and other toxic substances, such as mercury, arsenic and cadmium, but the process of dismantling creates new toxic substances triggered by chemical reactions. If not contained, these substances can contaminate water resources (including ground water), the atmosphere and the soil. Beaching poses the most severe environmental consequences since vessels are exposed to the natural environment without containment. Beaching also poses problems to coastal and ocean biodiversity as well as local communities. Fishing communities in close proximity to South Asian shipbreaking yards are particularly at risk. A study published in 2010 showed that at Alang beach, India’s main shipbreaking yard, species, such as the colia and hilsa cat fish, have disappeared and the fish size has decreased.5

A shipbreaking yard in South Asia
Source: Shipbreaking Platform NGO
Social Impacts

Health & Safety
Shipbreaking operations expose workers to a wide range of hazardous substances including asbestos, chlorofluorocarbons (CFCs), lead and polychlorinated biphenyls (PCBs). The figure below lists the potential locations of hazardous materials in a vessel. In 2006, an Indian medical study showed that 16 per cent of the ship breakers working on Alang beach suffered from asbestosis, a lung disease caused by the inhalation of asbestos which can lead to death.

![Potential Locations of Hazardous Materials](source)

Source: OSHA/U.S. Department of Labour

Ship breakers are also exposed to considerable injuries due to falls (often from heights of ten meters or more) or from being crushed or wounded by heavy pieces of metal. Lack of safety precautions at shipping yard also results in high fatality rates among workers. Between 1989 and 2009, it was estimated that as many as 1,000 people died in Bangladesh alone as a result of shipbreaking accidents. To put the Indian shipbreaking industry’s safety record in perspective, its employee fatality rate is six times higher than that of the Indian mining industry.6

Labour Rights
Shipbreaking is a labour intensive industry; in Bangladesh approximately 30,000 people work in the yards and another 50,000 are involved in the trade of materials. Working at shipbreaking yards in the Indian sub-continent often pays more than working on a farm or other types of informal employment. However, basic labour rights such as the right to freedom of association and sound working conditions are regularly violated. Workers are often hired locally by foremen who visit poor villages and mislead the locals about the working conditions at shipbreaking yards.

The industry is also implicated in the rampant use of child labour. In 2008, an investigation by the International Federation for Human Rights revealed that 20 per cent of the workers in Chittagong (a key shipbreaking location in Bangladesh) were younger than 15 years old.7 Driven by the need to support their families, young boys or girls seek unskilled work at shipbreaking yards, often cutting and carrying pieces of steel.
The Legislative Context

The adverse social and environmental impacts associated with shipbreaking have prompted legislative action. Whereas social impacts are largely addressed via the International Labour Organization (ILO) conventions on child labour, health and safety and other basic labour rights, two conventions address the environmental risks associated with controversial shipbreaking: the Basel Convention and the Hong Kong Convention. The table below summarizes the focus of these conventions.

<table>
<thead>
<tr>
<th></th>
<th>Basic labour rights</th>
<th>Child Labour</th>
<th>Hazardous Waste and Material</th>
<th>Health and safety</th>
<th>Water contamination</th>
</tr>
</thead>
<tbody>
<tr>
<td>ILO Conventions</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basel Convention</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hong Kong Convention*</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

*International Maritime Organization-backed convention.

The Basel Convention

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (the Basel Convention) came into force in 1992 and has been ratified by all countries except Afghanistan, Haiti and the United States. The convention aims to protect human health and the environment against the adverse effects resulting from the generation, management, transboundary movements and disposal of hazardous and other wastes. According to the Basel Convention, a ship may be defined as waste because of the hazardous materials it contains. This landmark international law marked the first time in history that ships were treated as hazardous waste. However, no enforcement provisions were set in the Basel Convention and no ban was set on waste exports.

India and the Basel Convention

India is a major shipbreaking country, with yards in Mumbai and Alang representing the most active shipbreaking yards in the world. The country ratified the Basel Convention in 1992 and translated the rules into its own legislation. However, given the overall lack of enforcement by Indian authorities, ships containing hazardous waste are still sent to India to be dismantled. In June 2012, responding to a lawsuit filed by the Research Foundation for Science, Technology and Natural Resource, an Indian Supreme Court ruled that vessels arriving for recycling in Indian waters and containing hazardous materials, such as asbestos or PCBs, must follow the United Nations Basel Convention treaty on hazardous waste movement. Consequently, owners of ships coming from Europe or the United States must notify the Indian authorities about the presence of hazardous waste and receive approval from Indian authorities before entering into India’s waters.

The “Basel Ban”

Following criticisms by non-governmental organizations (NGO) and some Nordic countries, an amendment to the Basel Convention was drafted in 1995 to address its loopholes. This amendment, which is often called the “ban amendment” or “Basel Ban,” declared the shipping of waste from an OECD country to a non-OECD country to be illegal. Several countries, including all EU countries, China and Turkey have ratified this ban amendment. However, the ban has not yet entered into force since it requires ratification by three-quarters of the Basel Convention’s member states. To date, only 44 of the 82 Basel Convention parties have ratified the ban amendment. In the European Union, the Basel Ban is fully implemented by Regulation (EC) No 1013/2006 of the European Parliament and of the Council on Shipments of Waste (the...
Waste Shipments Regulation), which sets out the controls applicable to shipments of waste to, from and within the EU. In countries like the United Kingdom, there are laws that set out offences and penalties for non-compliance.

**The Hong Kong Convention**

Another key regulatory development is the *Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships* (the Hong Kong Convention), which was initiated by the International Maritime Organization (IMO), a United Nations agency responsible for improving maritime safety and preventing pollution from ships. More stringent than the Basel Convention, the Hong Kong Convention addresses all aspects of shipbreaking, from the construction phase and selection of materials to the establishment of an appropriate enforcement mechanism for ship recycling and certification. For example, the convention obliges ship owners to adopt a ship recycling plan (already a recommendation of the IMO in its guidelines on ship recycling), and recognizes brokers as ship owners. It should be noted that, unlike other United Nations conventions, IMO conventions are more stringent by nature. Indeed, once an IMO convention comes into force any vessel in the world trading internationally must comply with it. Adopted in 2009, the Hong Kong convention has not yet come into force. Two conditions must be met: first, at least 15 states (representing 40 per cent of world merchant shipping by gross tonnage) must sign the convention; the second condition imposes maximum ship recycling thresholds for signatories. The Hong Kong Convention has been signed by five countries to date: France, Italy, the Netherlands, Saint Kitts and Nevis, and Turkey.

**Shipbreaking: Also an opportunity?**

Shipbreaking also constitutes a market opportunity for companies across several sectors, as suggested by the two examples below. Although shipbreaking yards are traditionally owned by small, privately owned companies, some large stock-listed companies with waste management capacities are entering the shipbreaking market.

In September 2006, two subsidiaries of French company Suez (now part of utilities company GDF Suez) won a EUR 3.3 million contract with the French navy to dismantle the warfare frigate Lucifer. Endel, which specializes in the dismantling of nuclear and chemical facilities, and SITA, which focuses on waste management and aircraft dismantling, joined forces on the project. The ship dismantling took place near Cherbourg, France and employed the drydock method. A watertight retention basin was constructed to eliminate any risk of leaks and protect the environment. The fact that Endel specializes in “green” dismantling activities and has expertise in the drydock method helped the company gain the mandate.

In 2000, transportation company Maersk established a special shipbreaking business unit called Green Shipping Recycling Unit. In setting up this entity, the company states it is making “a business out of corporate social responsibility.” Services offered include: pre-inspection of ships, itemization of hazardous materials, and development of recycling plans; coordination/negotiation of sale, and control of all documents and payments; supervision of pre-cleaning, waste handling, and dismantling at the yard; and assistance with training yard workers to improve their safety and occupational health. In the decade between 2000 and 2010 this unit has dismantled 50 vessels. In addition to dealing with the ships owned by Maersk and its subsidiaries, the Green Shipping Recycling unit (now an entity called Sea2Cradle) is also taking outside clients. This Maersk entity works together with the Jiangyin yard in China, which has received ISO 14001 and OHSMS 28001 certifications.
Preparedness and Best Practices

While the level of preparedness is considered weak for all exposed industries, in recent years companies (primarily ship owners) have made some noteworthy efforts to mitigate the adverse environmental and social impacts of their shipbreaking activities.

Ship Owners

A ship owner’s level of preparedness can be assessed according to the following five criteria: policy, yard certification, monitoring system, programs and targets, and reporting. The majority of companies exposed to shipbreaking from the energy, utilities, consumer services, and construction sectors do not disclose a policy on shipbreaking. Some major oil and gas companies release a policy statement on ship recycling, but such statements often lack relevant details. Though the level of preparedness is considered weak for all sectors, in the past three years companies in the transportation industry have made efforts to green their shipbreaking processes. Maersk is ahead of the curve in terms of preparedness relative to its peers, having adopted best practices on all the above-mentioned aspects, including policy development. The table below summarizes best practices associated with each criterion, focusing exclusively on the transportation sector.
<table>
<thead>
<tr>
<th>Criterion</th>
<th>Best Practice</th>
<th>Examples (Transportation industry)</th>
</tr>
</thead>
</table>
| **Policy** | • To publicly disclose a policy statement on shipbreaking  
• To follow IMO guidelines on ship recycling  
• To comply with the Basel Convention and, if applicable, the Basel Ban  
• To comply with the ILO conventions on child labour and working conditions  
• To comply with ILO guidelines on Safety and Health in Shipbreaking  
• To support the ratification of the Hong Kong Convention | • Maersk was the first shipping company to disclose a detailed statement on shipbreaking.\(^\text{12}\) Maersk’s policy includes commitments to “ending beaching,” supporting the adoption and ratification of the Hong Kong convention and supporting international best practices in terms of safety standards.  
• Odfjell also publishes a policy statement on shipbreaking in which it commits to following the IMO's guidelines on shipbreaking.\(^\text{15}\)  
• Nippon Yusen does not disclose a stand-alone policy on shipbreaking, but explicitly claims to be a strong proponent of a “new international treaty” on the issue.\(^\text{14}\)  
• At CMA CGM, despite some commitments to reduce waste and air emissions, no shipbreaking-related policies or programs have been established.\(^\text{15}\) |
| **Yard Certification** | • To rely on shipbreaking yards with environmental management certifications (e.g. ISO 14001)  
• To rely on shipbreaking yards with health and safety management certifications (e.g. OHSAS 18001 or OHSMS 28001)  
• To have certifications granted by independent third parties | • Maersk currently dismantles all its vessels at one single location: the Jiangyin yard in China.\(^\text{16}\) Maersk chose this yard because its environmental and safety management system are certified to ISO 14001 and OHSMS 28001. The yard employs approximately 1,200 workers and has the capacity to dismantle 10 vessels (with empty weight of 10,000 LDT each). It is located near Shanghai and the Yangtze delta. Maersk's team works together with staff at the Chinese facility and daily reports are sent to Maersk's management in Europe. |
| **Monitoring System\(^\text{17}\)** | • To implement a property database to monitor vessels’ end-of-life  
• To make an inventory of hazardous waste for each ship (in accordance with the Green Passport inventory set by IMO)  
• To implement a shipbreaking plan for each ship before it is recycled  
• To conduct internal and external audits of shipbreaking facilities | • Odfjell has taken inventory of its hazardous waste in accordance with the Green Passport inventory for all ships that are more than 20 years old.  
• Maersk began to implement the Green Passport in 2007 starting with its new vessels. The company now goes beyond compliance with IMO guidelines by adopting a “cradle-to-cradle” passport. This passport not only addresses the handling of hazardous materials, but refers to the handling of all waste. |
| **Programs & Targets** | • To launch a company-wide program on shipbreaking  
• To set a short-term target to increase the number of owned ships recycled at externally certified facilities  
• To set a concrete target and timeline to end beaching | • Mitsui OSK Lines set a target for 2012 to survey the situation in each country, determine the timing of ship recycling treaty enforcement and promote creation of inventory lists.\(^\text{18}\) Disclosure is insufficient to assess whether the company has achieved the target and what timing and deadlines have been set.  
• Nippon Yusen also set a goal to “scrap vessels in an environmentally friendly manner.” However, no qualitative targets and deadlines have been set.  
• MSC has recently launched a large scale sustainability program called Sustainability Ambitions 2020, backed by medium-term targets on safety and the environment in the supply chain, but with no specific reference to shipbreaking activities.\(^\text{19}\) |
| **Reporting\(^\text{20}\)** | • To disclose the number of vessels recycled per year  
• To disclose a break-down per country and the method used  
• To report on internal audit findings | • Maersk monitors and reports on the number of ships recycled in its public documents. In 2009, 20 vessels were recycled at the Jiangyin yard. No fatalities were reported at the Jiangyin yard since Maersk started sending vessels there in 2000.  
• Nippon Yusen indicates that five of its 776 major ocean vessels were recycled in an “environmentally friendly manner” in 2011, but does not disclose at which yard and following which standards.  
• Exxon Mobil does not report on the total number of vessels it sent for recycling in 2011, but the oil company indicates that it sold the S/R Wilmington to a U.S.-based, environmentally friendly ship-recycling facility that same year.\(^\text{21}\) |
Ship Brokers

Today, ship brokers play an important role as intermediaries between ship owners and ship breakers. Brokers are tasked with selecting one buyer among a group of potential buyers to sign a Memorandum of Understanding (MoU) that describes how the ship will be transferred to the ship breaking yard and under which circumstances. Green recycling may constitute a key point of distinction amongst competitors.

The world’s largest cash buyer is GMS Leadership, a privately owned company based in Dubai. The company buys vessels from ship owners (usually European and North American) and resells them to ship recycling yards (usually in South Asia). According to the company, one out of three ships delivered into India and one out of two delivered into Bangladesh are GMS deals. The company delivers 300 ships per year in total. GMS claims to be committed to green ship recycling and provides technical assistance to ship breakers in order to secure relevant ISO certifications. Examples of other ship brokers that specialize in the sale of ships for scrapping include Clarksons, ACM Shipping, Howe Robinson and Allied Shipbroking. None of these ship brokers disclose a policy on responsible shipbreaking.

Financials

Banks that finance controversial shipbreaking through credits and loans to the ship owners, brokers or breakers are also exposed to risk to a certain degree. A few banks, such as State Bank of India, Indian Overseas Bank and Standard Chartered, have established departments that focus specifically on financing shipbreaking and/or shipbuilding. Opportunities exist to engage with these lenders and develop sector policies in line with the IMO guidelines on ship recycling.

In November 2012, Dutch economic research consultancy Profundo released a report on the involvement of 11 major Dutch banks in shipbreaking. Profundo looked at the loans/credits granted to shipping companies as well as the stakes held by the asset management divisions of these banks. Dutch banks were reported to have financed a total of 46 shipping companies which sent approximately 343 vessels to South Asian beaches in the five-year period between July 2007 and June 2012. Other financial institutions, such as Triodos Bank and ASN Bank, do not finance or have a stake in shipping companies in accordance with their investment policies.

Whereas the financial sector shows a low level of preparedness with regard to the issue of shipbreaking, UK-based Standard Chartered Bank has uniquely positioned itself on the issue. In 2007, the company published a policy statement on shipbreaking in an effort to reinforce its commitment to the Equator Principles. It was the first time a major financial institution publicly disclosed a policy on shipbreaking.

Source: www.pierretorset.com
Controversial Shipbreaking Dismantles Stakeholder Trust — April 2013

Implications for Investors

To date, controversial shipbreaking activities have not been on the investment radar due to weak regulatory incentives and low levels of public awareness on this issue; however, the situation is changing. Whereas legislative action such as the Basel Convention and Hong Kong Convention already poses reputational risks to some companies, pending amendments and ratifications may have subsequent regulatory implications for companies. The coming years may also see more fines or penalties for companies implicated in controversial shipbreaking, as evidenced by the recent European parliament decision.

Furthermore, reputational risk is increasing due to new campaigns by NGOs such as Greenpeace, the Basel Action Network and the Shipbreaking Platform. The Belgium-based Shipbreaking Platform, a coalition of 18 environmental, human and labour rights organizations across the world, is exclusively dedicated to eliminating beaching in developing countries. In 2011, the coalition released a list of Europe-based companies that sent their vessels to South Asian beaches in 2010. This annual list exposes the number of vessels sent by each company compared to its peers.25

The issue of shipbreaking has also started to generate media attention. In late 2012 and early 2013, some prominent Dutch and German television channels broadcasted documentaries addressing the impacts of controversial shipbreaking and the companies involved.

In this context, responsible investors can play a key role in engaging ship owners, ship brokers and the financial companies that support them by raising the following questions:

Ship Owners

• Does the ship owner expressly commit to end beaching? If so, how and in what timeframe?
• Have the IMO guidelines on ship recycling, the Basel Convention’s Technical Guidelines for the Environmentally Sound Management of the Full and Partial Dismantling of Ships, and the ILO’s Health and Safety Guidelines for Asian and Turkish shipbreaking yards (all released in 2003/2004) been adopted by the ship owner?
• Has the company implemented a shipbreaking plan for each ship before it is recycled?
• Has the ship owner collaborated with other stakeholders, including the IMO, on the issue of shipbreaking?
• Does the ship owner rely on intermediaries (e.g. cash buyers) and, if so, does the company monitor cash buyers’ compliance with regulations and best practices?
• Does the ship owner conduct audits at shipbreaking yards? If so, does it report on audit findings?
• Does the ship owner disclose a formal policy statement on human rights (in line with international conventions, the Ruggie Principles and the Global Compact) and does it include a specific statement on shipbreaking?
• Does the company report on the number of vessels per year it sends for dismantling including the following details per vessel: vessel name, destination, IMO number, ISO 14001/OHSAS 18001 certification status of the yard, and shipbreaking method used?

Ship Brokers
• Has the ship broker set up a team responsible for overseeing the complete shipbreaking process in accordance with the Hong Kong Convention?
• Does the ship broker expressly commit to end beaching? If so, how and in what timeframe?
• Does the ship broker require ISO 14001 and OHSAS 18001 certification granted by a third party for shipbreaking yards?
• Do MoUs include social and environmental prerequisites for the ship breaker?
• Has the ship broker collaborated with other stakeholders, including the IMO, on the issue of shipbreaking?
• Have the IMO guidelines on ship recycling been adopted by the ship broker?

Financials
• Does the bank integrate social and environmental standards in its credit and loan business and its asset management activities?
• Does the bank make use of screening tools to identify companies exposed to shipbreaking? If so, does the bank have an exclusionary list?
• Does the bank engage with ship owners and, if necessary, ship brokers on the issue?
• Does the bank monitor whether ship owners or ship brokers make use of the beaching method?
• Is the bank a member of the Sustainable Shipping Initiative?26

Workers in a Pakistan yard
Source: NGO Shipbreaking Platform
## Appendix I

### Major stock-listed European-based entities that sent their vessels to South Asia* in 2010-2012

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Industry</th>
<th>Country</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.P. Moller - Maersk A/S (CPSE:MAERSK B)</td>
<td>Marine Transportation</td>
<td>Denmark</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BW Offshore Limited (OB:BWO)</td>
<td>Energy Equipment &amp; Services</td>
<td>Norway</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>China COSCO Holdings Company (SEHK:1919)</td>
<td>Marine Transportation</td>
<td>Hong Kong</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Fred Olsen Energy ASA (OB:FOE)</td>
<td>Energy Equipment &amp; Services</td>
<td>Norway</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Hyundai Merchant Marine (KOSE:A011200)</td>
<td>Marine Transportation</td>
<td>South Korea</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Mitsui OSK Lines Ltd. (TSE:9104)</td>
<td>Marine Transportation</td>
<td>Japan</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Nippon Yusen Kabushiki Kaisha (TSE:9101)</td>
<td>Marine Transportation</td>
<td>Japan</td>
<td>3</td>
<td>2</td>
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<td>5</td>
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<tr>
<td>Odfjell SE** (OB:ODF)</td>
<td>Marine Transportation</td>
<td>Norway</td>
<td>4</td>
<td>2</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>Royal Boskalis Westminster (ENXTAM:BOKA)</td>
<td>Construction &amp; Engineering</td>
<td>Netherlands</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>STX Pan Ocean Co., Ltd. (KOSE:A028670)</td>
<td>Marine Transportation</td>
<td>South Korea</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Technip (ENXTPA:TEC)</td>
<td>Energy Equipment &amp; Services</td>
<td>France</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>TUI AG *** (DB:TUI1)</td>
<td>Consumer Services</td>
<td>Germany</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Wan Hai Lines Ltd. (TSEC:2615)</td>
<td>Marine Transportation</td>
<td>Taiwan</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Sources: NGO Shipbreaking Platform

* South Asia includes India, Bangladesh and Pakistan  ** Mainly through subsidiary Deep Sea Drilling  *** Through subsidiary Hapag Lloyd

**Note:** Information on the number of vessels sent to South Asian beaches per company is based on a list compiled by the NGO Shipbreaking Platform and is based on third-party data (e.g. IHS Fairplay, Robin des Bois, etc).

This list looks at European companies that either use a European flag for their ships or are registered as the last ship owner before the ship was sold to ship breakers. Note that non-European-based group entities are listed here because some of their subsidiaries located in Europe were considered the last ship owners.

Although significant efforts have been made to establish a comprehensive list, there is a lack of disclosure on ship ownership. Some unscrupulous ship owners may circumvent inconvenient flag regulations by hiding their identities and changing flags.
Endnotes


5 Federico Demaria, Shipbreaking at Alang–Sosiya (India): An ecological distribution conflict, (September 2010).


14 Nippon Yusen website, www.nyk.com


17 Monitoring System - Implementing a monitoring system to monitor end-of-life vessels and ship breakers is recommended by the IMO in its guidelines on ship recycling. IMO recommends the adoption of a Green Passport Inventory for each ship in order to list hazardous waste substances used during the construction of ships, equipment and systems. It is the responsibility of the ship owners (and ship builders) to prepare the Green Passport. In addition, a ship recycling plan should be implemented before the arrival at the shipbreaking yard to make sure the ship has been prepared. This ship recycling plan can address, for example, any areas of the vessel where there may be collision damages in order to avoid any accidents during the shipbreaking process.

18 Mitsui OSK Lines website, www.mol.co.jp


20 Reporting - Reporting on the number of vessels sent to South Asia is considered best practice. Reporting should include relevant details about the vessel being dismantled (e.g. name, IMO number), the name of the shipbreaking yard selected and the method used. If the company conducts internal audits at shipbreaking facilities, it should also report on audit findings and possible corrective actions undertaken.


23 Ibid.


26 The Sustainable Shipping Initiative is a coalition of shipping leaders from around the world working towards a sustainable shipping industry. This initiative brings together NGOs such as WWF and Forum for the Future, industry players such as ship builders and ship owners, and the financial community (banks and insurers). Sustainable Shipping Initiative, http://ssi2040.org
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