

# Environmentally Sound Dismantling of Ships

## Introduction

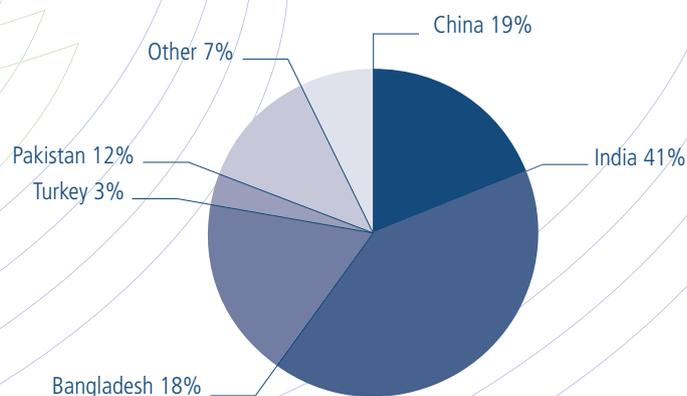
Ship dismantling, also commonly referred to as ship “recycling”, is an inherently sustainable activity, the benefits of which are felt at the global level. As the term ship “recycling” implies, value is derived from the materials and equipment comprising end-of-life ships: the scrap steel is melted down and is commonly used in the construction industries of ship recycling countries, and equipment (engines, mechanical parts or furniture) is refurbished and re-used in other industries.

The industry is based predominantly in South Asia (in India, Bangladesh and Pakistan), which according to 2010 statistics, occupies approximately 70% of the global ship recycling market (as measured in LDT<sup>1</sup>). Significant recycling activity also takes place in China (19%), with Turkey and other countries occupying the remaining 10% of the market. Beaching is the predominant method of ship recycling in the South

Asian Region, whilst China and some other countries employ an alternative method known as pier breaking.

The past decade has seen a substantial variation in the level of activity in the industry. The supply of ships for recycling is subject to large variations as a consequence of the global demand for seaborne transport. From 2004 to 2008, the high demand for maritime transportation resulted in a record low number of ships being sold for recycling (only between 200 to 400 ships per annum, whereas the historical average is between 700 to 800 ships). However, with the global economic recession in recent years, the demand for maritime transportation has declined. As a result, recycling activity peaked in 2009, with some 1200 ships being sent for recycling. Figures available until September 2010 indicate that high levels of recycling activity are set to continue.

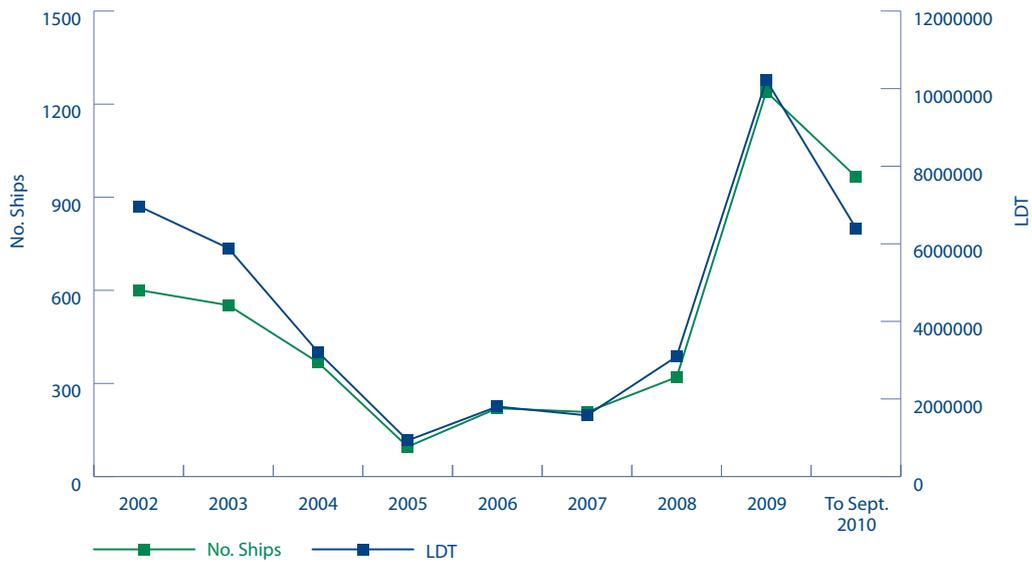
## Ship Recycling Market Share (2010) LDT



Data source: N. Cotzias Shipping Group, September 2010

1 LDT or light displacement tonnage is the displacement of a ship without cargo, fuels, stores and crew.

## Ship Recycling Volumes (2002-2010)



Data source: N. Cotzias Shipping Group, September 2010

## International concern

Concern has been expressed at the international level over the environmental, health and safety standards in this industry, particularly in those countries employing the beaching method of ship recycling. Ship recycling commonly takes place in developing countries which tend to have a competitive advantage as they provide a pool of low cost labour, may have weaker environmental protection / worker health and safety regulations, and have national demand for the outputs of the activity (predominantly scrap steel). Poor enforcement of regulations relating to this activity means that problems with local environmental pollution are commonplace and incidents of worker injury and fatality are high. These concerns are compounded given the upward trend in recycling activity experienced in the past few years.

## Involvement of the Basel Convention

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal has been involved in this issue for over a decade. This activity is of particular concern for Basel Parties as end-of-life ships comprise of an array of hazardous materials – such as asbestos, polychlorinated biphenyls (PCB) and waste oils – which can have serious implications for the environment and human health if not managed properly. As ships destined for recycling will rarely fly the flag of the recycling country, instances of this activity may represent a transboundary movement of hazardous waste and one which should not be permitted unless the destination countries have the ability to manage the hazardous materials onboard ships in an environmentally sound manner. However, given the global nature of the shipping industry





and the practices associated with sending end-of-life ships for recycling, there has been some difficulty in applying the provisions of the Basel Convention to ship recycling. Thus at the seventh meeting of the Conference of the Parties to the Basel Convention in 2004, while Parties recognised that a ship may become waste as defined in Article 2 of the Basel Convention, they also invited the International Maritime Organization (IMO) to continue work aimed at the establishment of mandatory requirements to ensure the environmentally sound management of ship dismantling (decision VII/26).

### **The Hong Kong Convention**

The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships was adopted in May 2009 at a diplomatic conference in Hong Kong, China, under the auspices of IMO. This Convention elaborates in its articles and regulations a control system for ship recycling, including obligations for flag States, ship-owners, recycling States and recycling facilities. At the seventh session of the Open-ended Working Group of the Basel Convention in 2010, Parties welcomed the adoption of the Hong Kong Convention and commenced discussions to determine whether the ship recycling convention establishes an equivalent level of control and enforcement as that established under the Basel Convention (decision OEWG-VII/12). These discussions will continue at the tenth meeting of the Conference of the Parties to the Basel Convention in October 2011, at which time Parties may seek to further clarify the scope of the Basel Convention as it applies to ship recycling.

### **Global Programme for Sustainable Ship Recycling**

Parties to the Basel Convention have also requested the Secretariat to develop implementation programmes for sustainable ship recycling, where possible in collaboration with other organizations such as IMO and the International Labour Organization (ILO). Parties have recognised that ship recycling States and the facilities within their jurisdiction may require assistance in implementing the requirements of an international regime pertaining to ship recycling.

The Secretariat thus seeks to assist those Parties with ship recycling industries in applying these controls through technical capacity building activities. To this end, the Secretariat developed the Global Programme for Sustainable Ship Recycling<sup>2</sup> in 2007 to encourage collaboration between organizations, in particular with IMO and ILO, in facilitating improvements in worker health and safety and environmental conditions in ship recycling countries. To date under the Programme, the Secretariat has developed training materials to enhance environmentally sound management at ship recycling facilities and a concept for a ship recycling technology and knowledge transfer workshop, the first of which was held in Izmir, Turkey, in July 2010, to facilitate partnerships between the various ship recycling stakeholders. Such initiatives have been developed in response to Party requests, and where possible, in collaboration with IMO and ILO.

<sup>2</sup> Please see the leaflet entitled "The Global Programme for Sustainable Ship Recycling" or refer to the ship dismantling section of the Basel Convention website ([www.basel.int/ships/index.html](http://www.basel.int/ships/index.html)).

In addition, the following two activities are currently being developed under the Programme for delivery in 2011/12:

- A case study to determine a compliant model of ship recycling, based on the Basel and Hong Kong conventions' requirements, and to elaborate a stepwise approach to assist ship recycling facilities to work towards compliance; and,
- A feasibility study to identify cost-effective, alternative models to the beaching method of ship recycling.

The Secretariat also continues to provide technical assistance within its area of competence to initiatives undertaken by Parties and other organizations.



## Further information

Further information on ongoing work related to ship recycling can be obtained from the Secretariat of the Basel Convention. The Secretariat is interested to hear from representatives of ship recycling countries who require technical capacity building assistance under the Global Programme. The Secretariat also invites contact with those wishing to provide input into the Programme, either through technical expertise, financial or in-kind contributions.

Photo credit: Susan Wingfield

### For further information please contact:

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