

Can global standards be implemented in the ship recycling industry?

by

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Most ships are sold for recycling after a service of around 25 to 30 years depending on ship type and market conditions. Other than recycling, a relatively very small number of ships end their lives as result of accidents.

Ships are usually sold for recycling when they become uneconomic, which is often brought about by the economic cycles of international shipping.

Furthermore, the decision to sell a ship for recycling is often dictated by its physical condition which may demand uneconomic repairs at the time of the renewal of the ship's certificates.

Less frequently, ships may be sent for recycling as a result of a regulatory phase out, as was the case with single hulled tankers, or because of regulatory requirements necessitating expensive modifications or refits.

It is unusual for a shipowner to sell a ship directly to a recycling yard. Instead, around 90% of ships sold for recycling, are sold to intermediaries, known as “Cash Buyers”, which are companies with expertise in the recycling markets and which buy ships from shipowners and sell them to recyclers. Cash Buyers are therefore influential players in the ship recycling market.

I represent here the world’s largest Cash Buyer, Global Marketing Systems, or GMS, who nowadays processes around one third of all tonnage recycled globally.

GMS has recognised the changes that are taking place and is anticipating the higher standards that will be demanded of the recycling industry. GMS was therefore the first Cash Buyer to be accredited to ISO 9001 standard and the first to tailor ship recycling plans for shipowners who want to ensure that their vessels are recycled to high standards.

But why don't shipowners sell directly to recyclers?

A shipowner selling directly to a yard faces a number of risks:

- he must ensure that the yard that will perform according to the contract. Most shipowners do not have experience of the recycling market in order to mitigate this risk;
- a shipowner wants to be paid in cash and not with a Letter of Credit that most recyclers utilise; and
- taking a ship on its last voyage with limited bunkers to a recycling yard's anchorage can pose significant commercial and logistical risks to the shipowner, especially in a falling market.

The Cash Buyer mitigates these risks for the shipowner by paying the agreed deposit and then the balance of the purchase price in cash. Thereafter, the Cash Buyer usually has pre-arranged a back-to-back sale of the ship to a recycling yard.

The benefits that arise from recycling ships are many. When recycling a ship every part of its hull, machinery, equipment, fittings and even furniture is re-used.

The industry creates economic development for local and regional communities: by large-scale direct employment, by the generation of associated industries, and also by the large scale of trading in used equipment and machineries that takes place.

There are additional benefits to the economies of the recycling countries from the recycling of steel, wood, machinery and equipment, that would otherwise have to be imported.

However, while the principle of ship recycling is a sound one, the working practices and environmental standards in recycling yards often leave much to be desired.



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For the last 20 or so years, environmental NGOs have campaigned for a safer and a more environmentally friendly ship recycling industry. This pressure has found outlets amongst politicians and Administrations, who looked for ways to regulate ship recycling with international common standards. The same pressure has led a slowly increasing number of shipping companies to adopt policies for “green” recycling of their ships.

The first attempt at addressing the problem internationally was to try to implement an off-the-shelf Convention which was already in force. This was “*The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal*”.

This Convention was developed in response to public outcry in the 1980s to combat the “toxic trade” following the discovery in Africa and other parts of the developing world of toxic wastes imported from abroad. The Convention was adopted in 1989, entered in force in 1992, and currently has 179 Parties.

The objective of the Basel Convention is to protect human health and the environment against the adverse effects of hazardous wastes. Its scope of application covers a wide range of wastes defined as “hazardous wastes”, as well as “other wastes”, namely household waste and incinerator ash.

The Convention sets out a three step strategy* to achieve its aims:

- minimize the generation of hazardous wastes;
- treat and dispose hazardous wastes as close as possible to where they were generated; and
- minimize international movements of hazardous wastes.

Note at this point that none of the three strategy steps appear appropriate or relevant to the recycling of ships.

** Minimizing Hazardous Wastes: A Simplified Guide to the Basel Convention, publication produced by the Secretariat of the Basel Convention*

Basel Convention (BC) does allow transboundary movement of wastes:

- if this represents an environmentally sound solution;
- if the principles of environmentally sound management and non-discrimination are observed; and
- if it is carried out in accordance with BC's regulatory system.

The regulatory system is based on the concept of Prior Informed Consent (PIC) requiring the authorities of the State of export to notify and to provide detailed information on the intended movement to the authorities of the State of import and any transit States. The movement may proceed if and when all these States have given their written consent.

In a further effort to strengthen the protection to developing countries, in 1994, Parties to the Basel Convention adopted the “Ban Amendment”, banning export of hazardous wastes from OECD to non-OECD countries. The Ban Amendment has not yet entered into force. It is nevertheless enforced unilaterally in the European Union, through the European Waste Shipment Regulation[§].

§ Regulation (EC) No1013/2006 of 14 June 2006 - applicable since July 2007.

At the end of the 1990s Parties to the Basel Convention considered that the convention should regulate the dismantling of end-of-life ships. As the Basel Convention contains no practical provisions for regulating this activity, its Parties developed and approved in December 2002 voluntary guidelines entitled: *Technical Guidelines for the Environmentally Sound Management of the Full and Partial Dismantling of Ships*.

The Basel Convention, however, had not been developed for regulating end-of-life ships and it therefore ignores the governance structures of international shipping. Quite early it became evident that there were practical and legal difficulties in enforcing the convention to ships. These difficulties were magnified in the European Union where the Convention is implemented together with the Ban Amendment forbidding the export of hazardous wastes (and ships) to non-OECD countries.

Examples of serious enforcement difficulties include the *Otapan*, the *Sea Beirut*, the *Sandrien*, the *Margaret Hill*, the *Tor Anglia*, the *Onyx*, and others. The EC calculated that in 2009, 91% of European end-of-life ships had avoided or evaded the provisions of its Waste Shipment Regulation.

Note areas where the structures of Basel Convention are unworkable for regulating end-of-life ships:

The Basel Convention defines “*State of Export*” as “*a Party from which a transboundary movement of hazardous wastes or other wastes is planned to be initiated or is initiated*”.

This means that the State of export is the State from which the transboundary movement physically has begun, or is planned to begin. The State where the decision about the movement is taken, or the nationality of the waste, or the nationality of its owner is of no relevance*.

For end-of-life ships this means that the State of export is the State from which the *transboundary movement has begun (or is planned to begin)*. That State must ensure the prior informed consent from the importing and transit States. The flag State, or the State where the owner is registered, has no responsibility to obtain such consents*.

* *Legal Aspects of Scrapping of Vessels*, by Professor Geir Ulfstein, Department of Public and International Law, University of Oslo, Document UNEP/CHW/LWG/4/4, December 2001

Also, “*wastes*” are defined in the Basel Convention as “*substances or objects which are disposed of or are intended to be disposed of or are required to be disposed of by the provisions of national law*”.

In relation to end-of-life ships such intention may be established by a decision of the owner or by a contract on scrapping. The shipowner, however, has various ways for not making his intention known and has ample opportunity to ensure that the ship’s last voyage is not considered to be a transboundary movement in accordance with the Basel Convention, for example by not declaring the intention to recycle the ship until she is in the high seas, or in the waters of the recycling State*.

* *Legal Aspects of Scrapping of Vessels*, by Professor Geir Ulfstein, Department of Public and International Law, University of Oslo, Document UNEP/CHW/LWG/4/4, December 2001

Because of the enforcement difficulties, the 7th Conference of the Parties to the Basel Convention, in October 2004, decided to invite IMO to consider establishing mandatory requirements that would ensure an equivalent level of control as that established under the Basel Convention (Decision VII/26).

Thereafter IMO's Assembly 24 (December 2005) adopted resolution A.981(24), instructing the Marine Environment Protection Committee to develop a "new legally binding instrument on ship recycling", which will regulate:

- the design, construction, operation and preparation of ships so as to facilitate safe and environmentally sound recycling, without compromising their safety and operational efficiency;
- the operation of ship recycling facilities in a safe and environmentally sound manner; and
- the establishment of an appropriate enforcement mechanism for ship recycling (certification / reporting requirements).

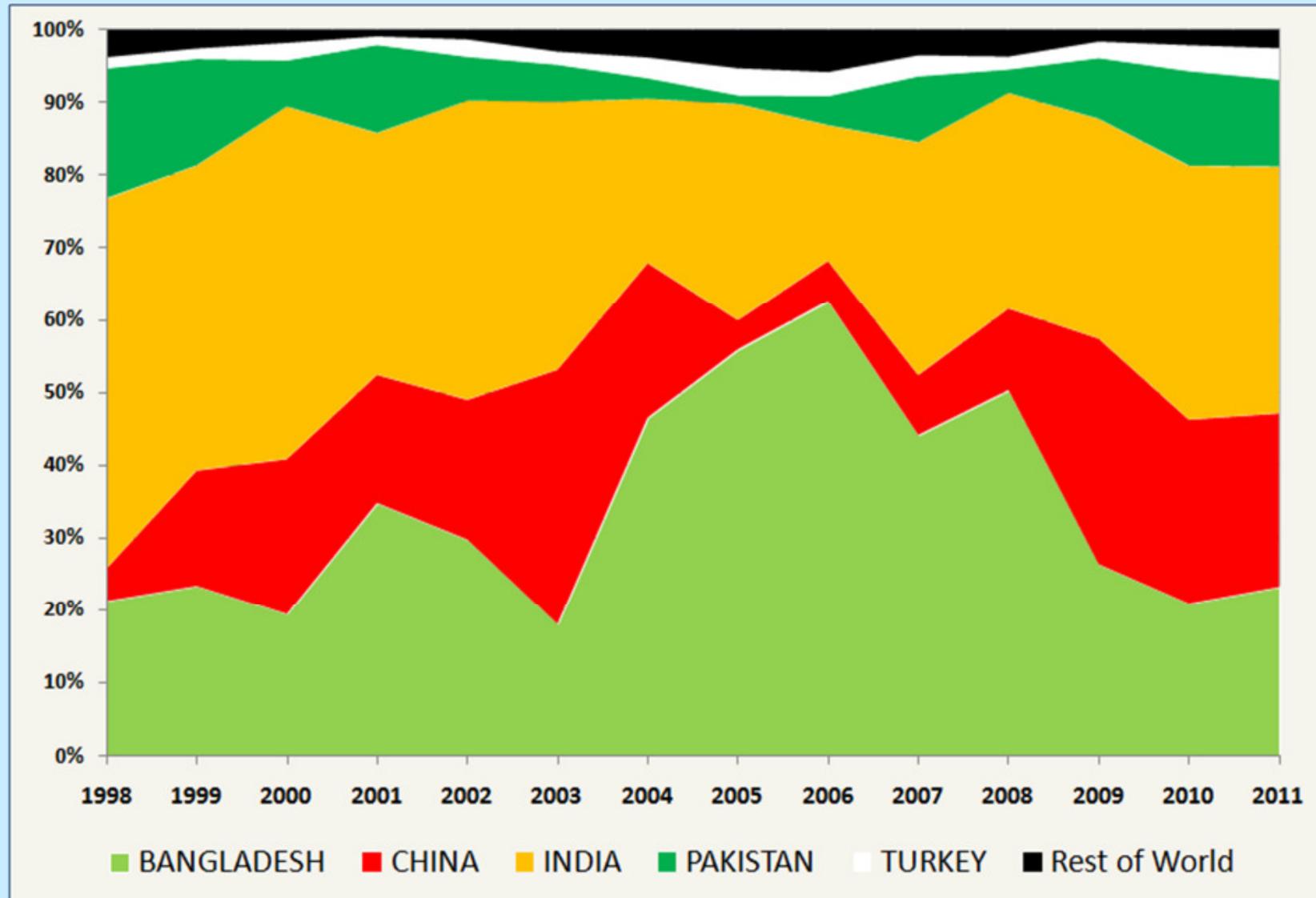
IMO is the UN agency that is proficient in the structures and the governance of the shipping industry. In developing the new convention IMO had also to be cognisant of the characteristics and traits of the recycling industry.

One of the characteristics of the ship recycling industry, certainly for the last 15 years, is that it is concentrated in five countries which have been recycling around 97% to 98% of the world's recycled tonnage.

Three of these countries, China, India and Bangladesh, have large recycling capacities, Pakistan has medium capacity, and Turkey has a small capacity.

Note that the rest of the world put together recycles less tonnage than Turkey.

Annual share of world GT recycling capacity by country (source IHS Fairplay)



The fact that there is very little ship recycling activity in Europe has often been explained in terms of the inability of Europe to compete with the low labour costs and low compliance costs of South Asia.

However, the real reason why ships are not recycled in Europe lays elsewhere: whereas the Asian countries utilize scrap steel in their domestic economies, Europe is a major net exporter of scrap steel. Therefore, the idea of setting up a ship recycling industry in Europe to break ships (with considerably higher labour and compliance costs), in order to export the scrap to Bangladesh or India, is simply not credible.

On the other hand, the five key recycling countries in Asia share a large appetite for scrap steel, and are also helped by lower labour and compliance costs.

Turkey's steel making uses mostly scrap steel and much less iron ore (around 74% v 26%), and is said to be the largest importer of scrap steel in the world (around half of it coming from EU). Turkey satisfies around 3% of its steel production needs with scrap steel from ship recycling.

China produces around 45% of the world's steel, its production being six times larger than the second largest producer, Japan. China uses mostly iron ore and only 10% steel scrap in steel making. Up to 2.5% of the country's needs for scrap steel comes from its ship recycling industry (representing less than 0.4% of China's steel production).

Equivalent figures for the contribution of steel from ship recycling to the steel production of the country, according to the World Bank*, is 50% for Bangladesh, between 5% and 6% for India, and 15% for Pakistan.

* The Ship Breaking and Recycling Industry in Bangladesh and Pakistan, World Bank report, 1 December 2010

China generally, but not always, pays prices around \$50 to \$70 per LDT less than those paid in South Asia.

Turkey in recent times paid around \$100 per LDT less than the prices paid in South Asia. Turkey specializes in recycling mainly Mediterranean trading ships and European government-owned ships. Turkey tends to recycle smaller ships, primarily for economic reasons.

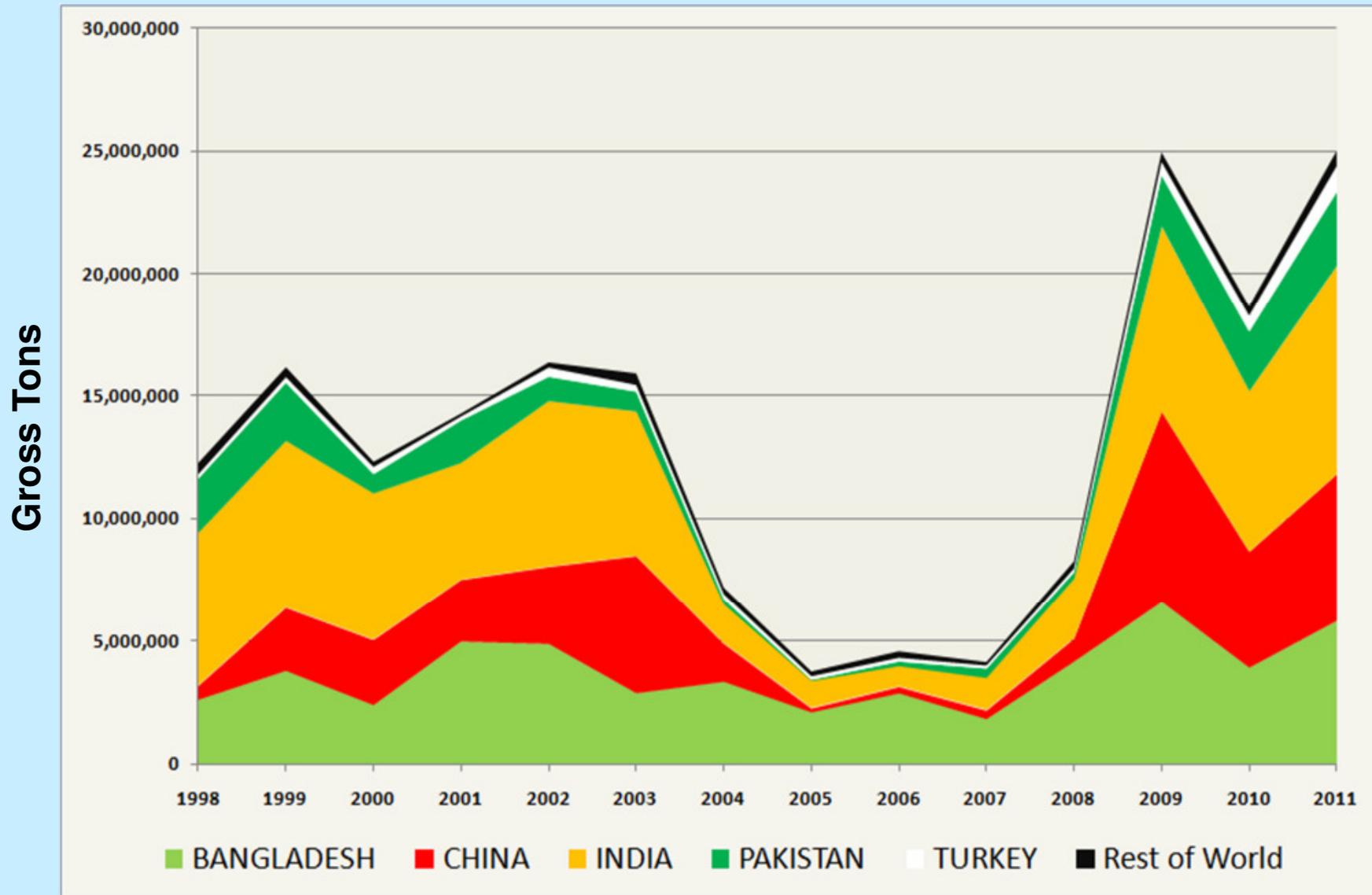
The price a ship is sold for recycling represents a significant residual value. Last year it represented between 17% and 23% of the replacement newbuilding price. The scrap price is therefore important in the ship owner's long term calculations.

Although a shipowner's decision on where to recycle his ship is sometimes based on a preference for "green recycling", more often than not it is based on where the shipowner can obtain the best price. The geographic location of the ship after its last cargo and prior to recycling is a key parameter in determining the best net price.

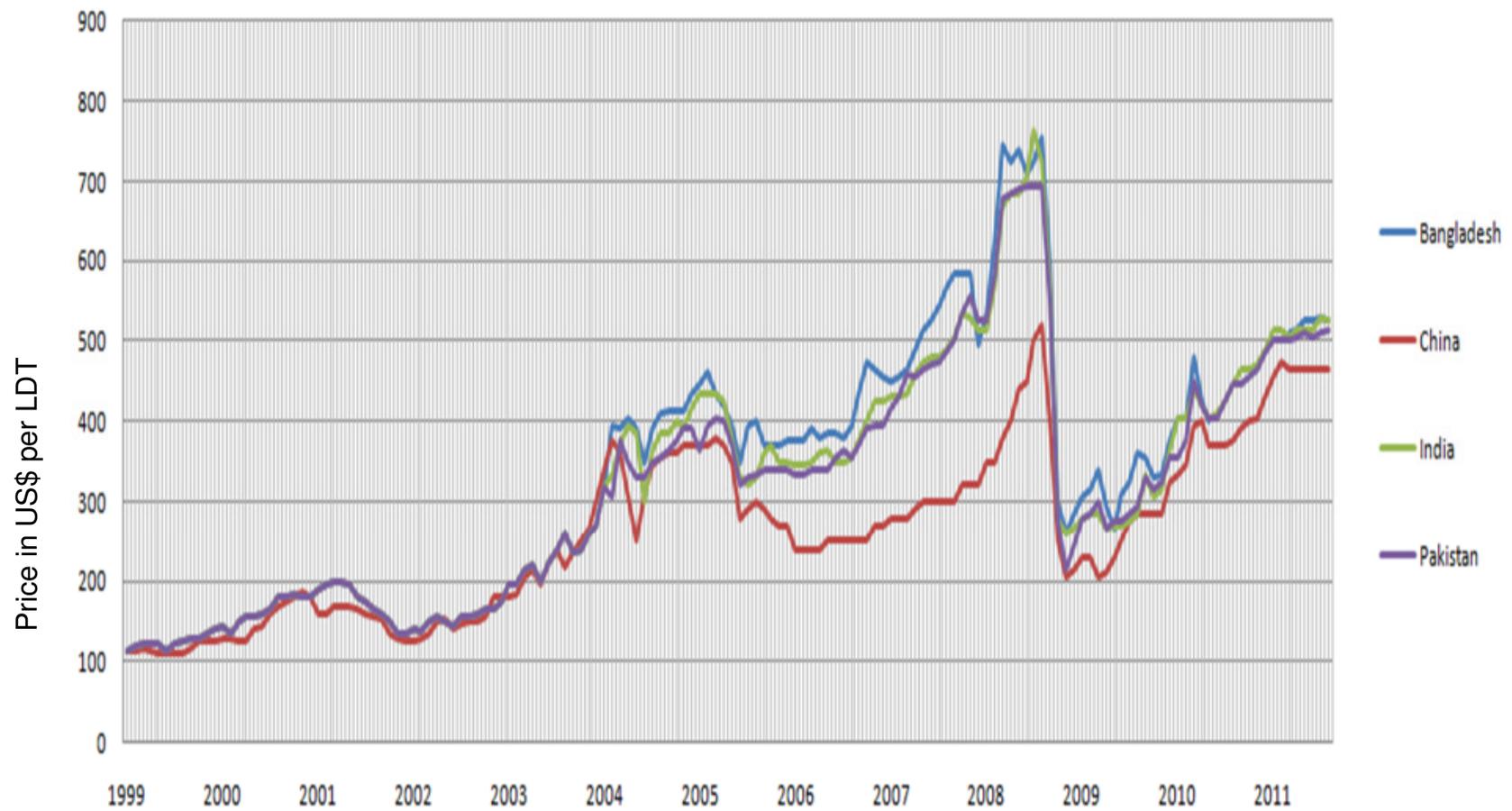
Prices and recycled volumes fluctuate depending on the state of the shipping markets (actual and anticipated balance of supply and demand) and on the price movements in the international steel markets.

Consequently, shiprecycling is a very volatile industry with, both, recycled volumes and prices varying widely over time.

Annual volume of recycled tonnage by country of recycling (source IHS Fairplay)



Average demolition prices for tankers, by country of recycling (source Gibson Shipbrokers)



The methods employed for ship recycling are:

Tidal beaching

as practiced in Bangladesh, India, and Pakistan, who provide about 66% of the world's recycling capacity in GT terms

Non-tidal beaching

as practiced in Turkey, who provides about 4% of the world's capacity

Alongside or floating

as practiced in China, who provides around 28% of the world's capacity

Graving dock or drydock

used in very limited cases



Bangladesh, Chittagong

21/1/2009

24



China, Guangdong (Pearl river)



China, Jiangyin (Yangtze river)



India, Alang

27

27



Pakistan, Gadani

Turkey, Aliğa



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Following the adoption of IMO's Assembly resolution A. 981(24), MEPC 54 in 2006 convened a working group on ship recycling which commenced the development of the text, on the basis of a first draft submitted by Norway.

Thereafter, much concentrated work was devoted to the further development of the draft text of the convention:

- 4 further sessions of MEPC (including 3 working groups and 1 drafting group);
- 4 correspondence groups; and
- 3 intersessional working groups

Three years and 2 months after the submission of the first draft, a diplomatic conference was held to adopt the convention on ship recycling, probably in record time.

The 2009 International Conference on the Safe and Environmentally Sound Recycling of Ships took place at the Hong Kong Convention and Exhibition Centre, from 11 to 15 May 2009.

The Conference was attended by representatives of 63 Member States, two Associate Members, representatives from the Secretariats of the Basel Convention and of ILO and observers from one IGO and eight NGOs.

Having finalized the text of the convention, the representatives of the 63 Governments unanimously adopted the “Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009”, also known as “the Hong Kong Convention”, and six Conference resolutions.

Application of the Hong Kong Convention

The Convention will apply to:

- ships flying the flag of a Party; and
- recycling facilities residing in a Party.

The Convention will not apply to:

- Warships; government owned non- commercial ships; exclusively domestically operated ships; and ships of less than 500GT

The Convention also makes provision for “no more-favourable treatment” for ships flying the flag of non-Parties.

Main requirements for ships in service

Parties will ensure that hazardous materials listed in Appendix 1 to the Convention will not be used in their shipyards, or installed on their ships.

Ships will be provided with an Inventory of Hazardous Materials (IHM) identifying and quantifying in Part I materials listed in HKC's Appendix 1 (existing ships) and Appendix 2 (new ships).

Existing ships will have an IHM no later than 5 years after entry into force, or when the ship goes for recycling if that is earlier.

The IHM will be updated after installations of materials listed in Appendix 2 of the HKC.

Ships will undergo renewal surveys verifying the IHM and will be issued with the International Certificate on Inventory of Hazardous Materials (ICIHM) with 5 years' maximum validity.

Main requirements for ships preparing for recycling:

The shipowner (note, the HKC in its definition of the shipowner includes the Cash Buyer) of a ship flying the flag of a Party has to:

- recycle the ship in recycling facilities of a Party State;
- select an authorized recycling facility that is capable to deal with the types and quantities of hazardous materials in the ship (as per IHM);
- provide the facility with copies of the IHM, the ICIHM, and with any other relevant information (with which the facility will develop the Ship Recycling Plan);
- notify the flag State of the intention to recycle the ship;
- (once the approved Ship Recycling Plan is received from the facility) arrange for a final survey to verify the IHM and that the SRP reflects correctly the IHM and that it contains other required information;
- following the final survey, obtain the International Ready for Recycling Certificate (IRRC) from the flag State or its Recognized Organization.

Main requirements for recycling States

- Parties shall establish legislation implementing the HKC;
- shall designate one or more Competent Authorities (CA) and a single contact point to be used by interested entities; and
- shall establish mechanisms for ensuring that recycling facilities comply with the HKC and for authorizing* them to operate.

* This authorization also establishes any limitations imposed on the SRF, as condition for its authorization. The SRF may be limited by way of the types or sizes of ships they recycle, and by way of the categories and quantities of hazardous materials they can safely process.

Main requirements for Ship Recycling Facilities (general)

- SRF shall develop and implement a Ship Recycling Facility Plan (SRFP) that covers: worker safety and training; protection of human health and the environment; roles and responsibilities of personnel; emergency preparedness and response; and systems for monitoring, reporting and record-keeping;
- SRF located within the jurisdiction of a Party shall be authorized by that Party. The authorization shall have 5 years' maximum validity; and
- SRF shall only accept ships that comply with the Convention, or which meet its requirements. SRF shall not accept ships they are not authorized to recycle.

Main requirements for Ship Recycling Facilities (ship specific)

- a ship-specific Ship Recycling Plan (SRP) shall be developed according to the SRP Guidelines taking into the account information provided by the shipowner (i.e. IHM, ICIHM, plans etc);
- a SRF preparing to receive a ship shall notify its CA;
- the SRP shall be approved by the CA and then shall be made available to the ship for its final survey; and
- when the ship has acquired the International Ready for Recycling Certificate (IRRC), the SRF shall report to its CA the planned start of recycling.

Article 17 Entry into force

This Convention shall enter into force 24 months after the date on which the following conditions are met:

- .1 not less than 15 States have either signed it without reservation as to ratification, acceptance or approval, or have deposited the requisite instrument of ratification, acceptance, approval or accession in accordance with Article 16;*
- .2 the combined merchant fleets of the States mentioned in paragraph 1.1 constitute not less than 40 per cent of the gross tonnage of the world's merchant shipping; and*
- .3 the combined maximum annual ship recycling volume of the States mentioned in paragraph 1.1 during the preceding 10 years constitutes not less than 3 per cent of the gross tonnage of the combined merchant shipping of the same States.*

The first condition for entry into force (15 States) is not hard to meet.

The second condition (40% of the GT of the world's fleet) is quite demanding, especially when bearing in mind that at the beginning of last year, 44.6% of the world fleet (in GT) flew the flag of one of four open registries (Panama, Liberia, Marshall Islands, or Bahamas)*.

The third condition currently necessitates that the Hong Kong Convention (HKC) is acceded by any two of the three large recycling States (Bangladesh, China, and India). Currently, and in the foreseeable future, no other combination of accessions by recycling States will satisfy the third condition.

Accession by all five recycling countries is a feasible and desirable target that will ensure the universal implementation of the HKC. The international community will need to assist (not only with words) the Administrations of the three South Asian recycling countries to make their accession possible and a matter of priority.

* While 54.7% of the world's tonnage flew the flag of one of 10 open registries

A number of environmental and labour rights organisations formed some years ago the NGO Shipbreaking Platform to coordinate campaigns against unsafe and polluting ship recycling. The Platform has participated in IMO meetings leading to the development of the Hong Kong Convention, but has taken an adversarial and antagonistic position against the work of IMO on ship recycling, favouring instead continuing efforts for the enforcement of the Basel Convention for the regulation of ship recycling.

The Platform regularly creates the impression that Basel Convention and IMO are engaged in a struggle as to who will regulate ship recycling. This is plainly wrong, as IMO (170 +3 Member States) and the Basel Convention (179 Parties) have virtually the same membership (although often represented by different ministries).

Instead, the reality is that the two conventions have natural synergies and common boundaries that can be well defined. Also, the Secretariats of the two organisations are, and have been, actively collaborating in joint technical cooperation projects.

The NGO Shipbreaking Platform has two fundamental disputes with the Hong Kong Convention:

- the HKC does not ban tidal beaching, unlike the Platform who has made this the central part of its policy and campaigns; and
- unlike the Ban Amendment of the Basel Convention, the HKC does not make a distinction between developed and developing countries. Consequently, the HKC does not mandate, for ships flying flags of developed countries that are bound for recycling in developing countries, their pre-cleaning from all hazardous materials.

Let us next examine the practicality and the consequences of these claims.

True, the Hong Kong Convention does not ban the beaching method of recycling. The developers of the Convention realized that banning of beaching would be meaningless, since at least two thirds of the world's recycling capacity relies on the tidal beaching method.

Instead, the Convention addresses the reduction of the risks to human health and safety and to the environment through: requirements on worker safety and training; requirements for the protection of human health and the environment; for emergency preparedness and response; and systems for monitoring, reporting and record-keeping.

In this way IMO intends that the Hong Kong Convention should become the universal standard for regulating ship recycling activities, whether these are conducted in countries that employ beaching, or countries employing more advanced methods.

The HKC also does not require that all ships arrive at the recycling facilities of developing countries pre-cleaned of hazardous materials.

This is because a ship that is pre-cleaned is unseaworthy, since its insulation is stripped, its electrical cables are removed, etc. It is therefore necessary to tow pre-cleaned ships to their place of recycling. If pre-cleaning was to be done only in OECD as demanded by the Platform, it is highly unlikely that the economics, practicality and hazards of towing would allow many OECD ships to be recycled in South Asia, or China.

Instead, HKC recognizes that pre-cleaning can take place in any country, and not only within the OECD, and therefore empowers the recycling State to authorize or restrict each recycling yard according to its capability. In this way, a ship may either be pre-cleaned in the facility where the recycling takes place, or if the recycling facility is not suitably equipped, the pre-cleaning can be done at another facility (possibly nearby) that is equipped and authorized to do so.

The HKC was developed in response to a recognition that there is a need to introduce safety and environmental improvements in many recycling yards, primarily in the developing world where the majority of ship recycling takes place.

The Platform has the luxury of making its pronouncements without having the responsibility to establish a workable and effective system of standards. The demands for the banning of beaching and for pre-cleaning of ships destined for yards in developing countries, can only be met in practice by the closing down of the ship recycling industries in South Asia. That is as if the Platform does not want global standards for ship recycling.

Conversely, IMO in developing the HKC has produced a workable system of technical requirements that lead to progressive improvements and that have every chance of becoming the global standard of tomorrow.

In a further development, in recognition of the failure of the European Waste Shipment Regulation to regulate ship recycling, the EC in March 2012 adopted the “*Proposal for a Regulation of the European Parliament and Council on ship recycling*”. As part of the decision making process, the Regulation will have to be negotiated between DG Environment of the EC, the European Parliament, and the Council of Europe over the coming months before it can be finalized, published, and enter into force.

The proposed Regulation is based on the HKC and when the HKC enters into force it should be easy to replace in the European Union the European Regulation with the Hong Kong Convention. Notwithstanding certain valid criticisms on some important points of detail in the first draft, which are now being addressed by the European Council, the proposed Regulation is a bold and positive step, because with it the European Commission recognizes the HKC as the practical and realizable standard for the recycling of European ships. Also it has the potential of accelerating the entry into force of the HKC, possibly by a couple of years.

As part of Europe's regulatory process, the Parliament, here under the leadership of the Green Party and the active lobbying of the Platform, is proposing a set of amendments including the outright banning of beaching for European flagged ships. Note that some MEPs are currently supporting this proposal as a mechanism for generating ship recycling jobs in Europe!

The simple reality is that if this amendment were to be accepted by the European Council and Commission, the only effect it would have, other than damaging IMO's work on ship recycling, would be to nullify all European influence towards the improvement of safety, environmental and worker welfare standards in South Asian countries. The three South Asian countries, which recycle two thirds of the world's recycled tonnage, will certainly not stop beaching and recycling ships because of a European ban.

Thank you for your attention

The views expressed in this presentation are those of its author