

# **IAMUS AGA 17: The Vessel Recycling and the Ship Cemeteries of Southeast Asia**

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- **Abstract**

Annually, more than a thousand ships are declared as worthless and recycled to be sold as scrap metal. About the 80% of those ships are sent to highly deficient scrap yards, located mainly on the coast of Bangladesh, India, Pakistan, and Turkey. Around forty years ago, ship dismantling took place in Europe, but the hardening of safety, quality, and environmental standards made the recycling process more expensive. Hence, vessel operators, with the objective of reducing costs, moved the process to underdeveloped areas by taking advantage of the lack of prioritization of human rights.

In those places, facilities are not properly equipped with the safety devices that are needed for the correct developing of the ship's recycling process, which results in scaring death taxes and continual marine and environmental pollution.

Everything previously mentioned raises a lot of legal issues that need immediate solutions. To achieve that, many institutions like the International Maritime Organization implemented several regulations. And although the United Nations designed the Basel Convention, the Hong Kong Convention and other agreements, it hasn't been enough.

Therefore, the project's goals are to evaluate all the legal regulations implemented by Maritime Institutions, study the economical interests of multinational companies, and release a viability study of a new fiscal program that regulates the auction process of the ships, and that incentivizes sustainable scrapping methods.

After all, we summarize the mainly project's goals in explanation of the highly deficient situation in the scrapping yards of Southeast Asia, in the analyzation of the current regulation implemented by maritime organizations, in the definition of a safety and sustainable process to dismantle a ship and finally, to make a proposal of a new fiscal program that regulates the auction process.

To achieve it, the project is divided in four parts:

1. Ship Cemeteries of Southeast Asia.
2. Ship Recycling Regulations.
3. Ship Sustainable Recycling Procedure.
4. Draft Law of Ship's Auction Process

## • **Ship Cemeteries of Southeast Asia**

Nowadays, the current model refers to ship dismantling is unsustainable. According to data from the European Commission, about 1000 ships are destined to recycling every year and more than 70% are sent to countries in South Asia. Overall, a volume that can reach 1.3 million tons of toxic substances dumped in India, Bangladesh or Pakistan, a surprising volume if we consider that it's a completely illegal procedure.

At the beginning of the eighties, coinciding with the hardening of environmental regulations, China becomes one of the best useless ship buyer, to recycle them. Besides, it is known that China accumulates almost half of the world's steel, about 1.140 million tons. This number is much higher than self demand, fact that makes the country the biggest producer and exporter of the world, with more than 400 million tons every year. By applying the ISO 14001 Environmental Management and OHSAS 18001 standards for occupational health and safety management to certify its facilities and procedures, China's market share is reduced by up to 3.7%.

In the middle 1990s, India, Pakistan and Bangladesh jointly controlled 87% of the market, and today almost all of the activity is carried out by these countries. These countries have a cheap labor and a market that reuses almost 100% of the materials recovered in the scrap yards. Due to proximity to China, these countries become essential for a cheap dismantling. There are 3 shipyards with very precarious facilities that have very high accident rates.

**GADANI – PAKISTAN:** It is the third largest scrapping in the world, with a front beach of 10 km, and about 107 ships recycled per year.

**CHITTAGONG – BANGLADESH:** With almost 20 km. of front beach, this shipyard has more than 200,000 people working. On average, a worker dies every day.

ALANG – INDIA: Is the largest shipyard in the world, recycling nearly 50% of ships every year. The Knock Nevis (Seawise Giant), the world's biggest vessel ever built, was dismantled there.

- **Ship Recycling Regulations**

First of all, we must know the route made by a ship since it is declared as useless until it is recycled. The owner of the vessel usually contacts a broker who through speculation tries to get the most benefit from the ship. To emphasize that between 80 and 95% of the light weight tonnage of the vessels is steel, the price of this in the Asian market is fundamental for speculation. In many cases the price per ton of non-recycled steel in Asia can double the price it has in Europe.

Derived from the human and environmental problems of the irregular recycling process, several institutions have taken steps to eradicate the problem. After the analysis, it is observed that, to date, these regulations are not enough. We can highlight the following:

**Basel Convention by United Nations:** Is an international treaty that was designed to reduce the movements of hazardous waste between nations, specifically between developed areas to less developed countries, and also tries to minimize the toxicity of waste generated. It was signed on 22<sup>th</sup> March of 1992 and it became effective on 5<sup>th</sup> May 1992.

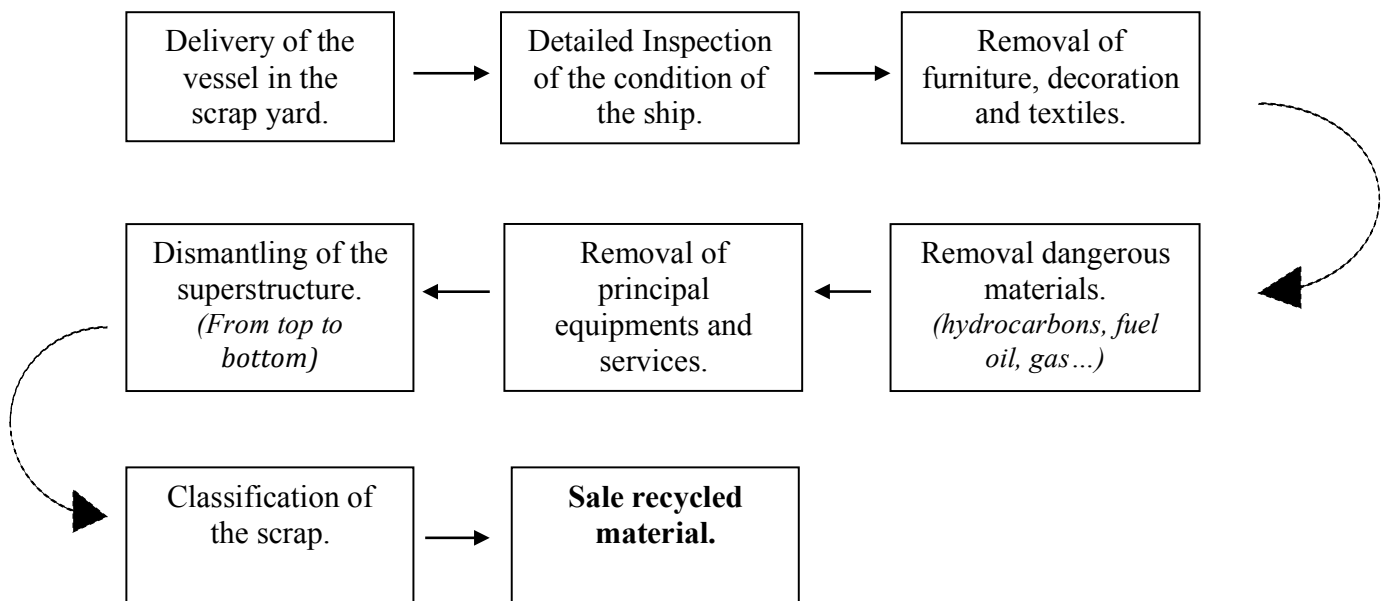
**Hong Kong Convention by International Maritime Organization:** This international treaty was adopted at diplomatic conference held in Hong Kong (China), on May 2009, which was attended by delegates from 63 countries. The convention intends to address all the issues around ship recycling, including marine pollution and it also concerns raised about the working conditions at many of the world's ship recycling locations.

**Proposal for a Regulation by European Commission:** The objective of the Regulation is to reduce the negative impacts linked to the recycling of ships. The regulation also includes additional safety and environmental requirements. It also includes “European list of ship recycling facilities” and “Hazardous Materials List”.

**Ship Recycling Regulations: Safety and health guidelines for ship recycling in Turkey and South Asia by International Labor Organization:** It is a compilation of guidelines to prevent several accidents and death in the scrap yards of Turkey and South Asia. In a conference celebrated in Bangkok (Thailand), on October 2013, assist many specialist of naval science to discuss all the issues around ship recycling workers. In the present guidelines are included articles from (ILO-OSH 2001) with the idea of being a practical guide for those countries.

- **Ship Sustainable Recycling Procedure.**

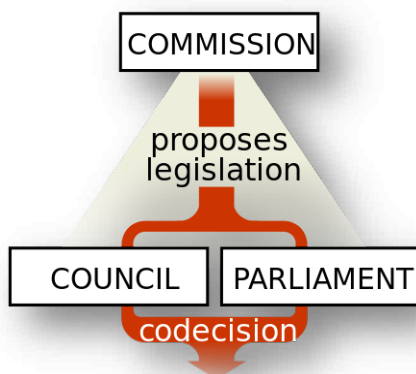
Based on all the regulations mentioned in the previous section, a sustainable recycling process is defined below. The specific order that has been established must be followed for a preservation of safety and reduce the marine pollution.



In addition to following the order of the procedure, workers must be dressed with safety clothes, to achieve maximum prevention of accidents. It must be necessary to wear helmet, glasses (inactive glasses in case of welders), safety gloves, security boots, mask and special suit that protect the worker from toxic and corrosive substances.

- **Draft Law of Ship's Auction Process**

First of all, before the implementation of the proposal law raised on this final project, it is very important to know the European Union legislative procedure. The European Union adopts legislation through many different legislative procedures, this procedure it directly depends on the policy area in question.



For the projects it is chosen the most common process. The ordinary legislative procedure is the main legislative procedure by which directives and regulations are adopted, it is also known “codecision procedure”. Article 294 TFEU<sup>(1)</sup> outlines ordinary legislative procedure in the following manner. *(Image left)*

(1) Treaty on the Functioning of the European Union (2007), is one of the two primary treaties of the European Union.

The proposal of the “Regulation of Ship Auction Procedure (2017)” it is inspired on the mainly articles of Economic Regulations from European Commission and some other articles from the Hong Kong Convention (IMO). This Regulation it is based in 3 fundamental applications.

1. **Fiscal Advantages:** It would be encourage safety ship scrapping by means of tax advantages for ship owners and brokers. That measure it would incentivize the constant improving of the facilities of the scrap yards.
2. **State Control for Speculators:** Just as through the MoU<sup>(2)</sup>, it has been agreed to use the Port State Control for the regulation of substandard ships, this law will implement a control system to avoid fraudulent transactions and speculation.
3. **Economic Aid:** This bill, wants to encourage economic aid to those shipyards that commit to work with guarantees, for workers and the environment. That measure it would incentivize the constant improving of the facilities of the scrap yards, too.

These are the three most important parts of the bill, but it also has other parts as mechanisms to regulate the market price of steel and thus avoid the speculation of China, among others.

Once the bill is drafted, it can be submitted to the EU through a state agency, and then the Commission submits a legislative proposal to the Parliament and Council. At the first reading Parliament adopts its own positions and If Council approves the Parliament position then the act is adopted. For make it simple, and not being involved in a huge legislative procedure it is supposed that Parliament and Council approves the “Regulation of Ship Auction Procedure (2017)” at the first reading.

*(2) Memorandum of Understanding (MoU) is an agreement between two (bilateral) or more (multilateral) parties. It expresses a convergence of will between the parties, indicating an intended common line of action.*

- **Conclusions**

Due to all studied in this final project, it's seems obvious that the situation is quite dramatic, and completely unsustainable. Nowadays the developed areas tend to act without caring anything but economic benefit. It is important to solve the human and environmental issues linked to irregular vessel recycling.

Despite current regulations the situations is not improving. On the contrary, a number of years ago there has been a growth in the number of recycled ships in Southeast Asia. The conditions of the workers are getting worse, and every day dozens of people die because they are not well prepared. One of the reasons why the current regulations do not work is because Europe do not have the jurisdiction to trade issues in Asia. With my proposal, what I try to do is to regulate the bad practices taken by companies in developed areas that have a direct impact in those countries.

In some cases, such regulations can stifle the scrapping of ships in South East Asia, because ship owners would have advantages in recycle ships in safe ship yards, which are mainly located often in Europe and United States.

But in the other hand, it can be the necessary incentive for all the scrap yards that are working under the standard levels, to improve their facilities, becoming competitive and safe places for workers and the environment.

To conclude, I would say that as a personal opinion, I think it is very important that everyone in the maritime world becomes aware of the dramatic situation in South East Asia, in order to make a better place for everyone.

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