

Slowing Down Ship Speed Could Help Save the Planet

Time to Rethink for Bangladesh

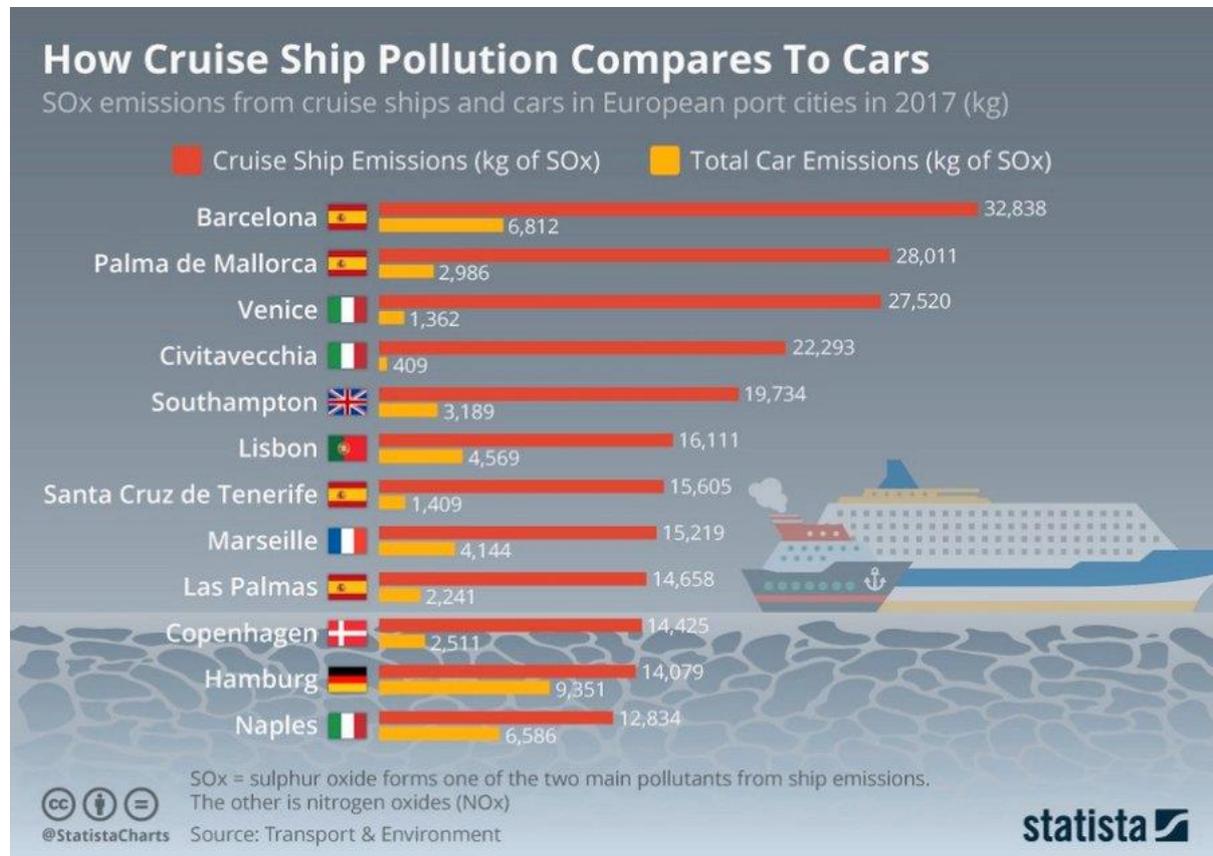


About eighty percent (80%) of global trade by volume, and seventy percent (70%) by value, is carried out by sea and handled by ports worldwide. Marine ships in the world's oceans are increasing. It includes watercraft ranging from small boats to large ships. Commercial ships are growing in number and size, linked to overall economic growth (United Nations Conference on Trade and Development [UNCTAD], 2018). Concern about the potential effects of ship noise and their emissions on marine aquatic animals is a common problem. The noise field around a boat or ship depends on source frequency and the environment in which the vessel travels, and it changes with vessel speed, load, size, and other factors. There is a large variety of motorized boats and ships, such as recreational boats, passenger and car ferries, high-speed craft, cruise ships, tug boats, dredgers, dry and liquid cargo vessels, fishing vessels, oil and gas production platforms, research vessels, naval ships, submarines, etc. All of these produce pollution, especially sound pollution in the aquatic environment and the emissions of greenhouse gasses from maximum running ships create water pollution.

Nowadays, shipping is one of the grubbier industries in the world. Ships are legally allowed to burn fuel considered dirty in most contexts. The next carbon bomb to hit our climate might come from out at sea as emissions from ships generating 3% of global warming gasses by burning approximately 1 billion metric tons of carbon dioxide and other greenhouse gases every year. Without any changes to the industry, the United Nations' International Maritime Organization (IMO) projects emissions from international shipping could increase by between 50% and 250% over the coming decades, depending on future economic growth. If that projection is accurate, ships could account for 17% of global carbon emissions by 2050.

A ship produces more carbon dioxide emission per mile and per gallon of fuel than a car. The shocking data was published in a report that 203 cruise ships docking in ports such as

Dubrovnik, Marseille and Hamburg emitted substantially more SO₂ during their stay than all passenger cars in those cities for the whole year.



But recently, it has been found that emissions could be reduced by limiting ship speed. A report by an advocacy group called Seas at Risk published that Enforcing a 20 percent speed reduction across the industry would lower greenhouse gas emissions by nearly 25 percent and drastically cut other environmental factors like marine noise pollution and whale collisions by up to 75 percent.

A 20 % reduction of the speed limit would cut 66% of the underwater noise that will protect the marine breeding disturbance of aquatic organisms. This reduction will produce 20 % less Sulphur and Nitrogen oxides and a high reduction of black Carbon. That means cutting the speed of ships is a win from climate change, human health, marine nature, safety issues and finally, a win for the shipping industry by saving money for less fuel. According to OECD (An Organization for Economic Co-operation and Development) report, a total decarbonization of the shipping sector would be possible by 2035 if the following options are combined:

- Technological measures, through improving energy efficiency and storage;
- Operational measures, including slow steaming (reduction of the vessel speed);

3. Renewable energy, by developing the use of biofuels or wind power. It is now the demand of nature that industry needs to move for alternative fuels in the medium or long term. But highlighting the present status of shipping pollution, there is considerable pressure from

many countries and even shipping companies for effective short term measures to control emissions. It is a proposal from Denmark that individual shipping companies have to take measures on the following issue as all the industries have different goal-based standards. A Greek shipping company owner mentioned that limiting the ship speed does not require extra investment, on the other hand, we are getting a healthy environment, so immediate short term action can be taken easily by the shipping companies. The shipping industry has already begun to adopt slowing speeds for reducing emissions. France has proposed an urgent, global speed cap of 11 knots (1knot =1.15 mile/h) for all oil and chemical tankers in the world, from 2023 to 2025, which is only one knot below their current average speed. Another approach proposed by Denmark would require ships to use less fuel through more efficient ship design, operations and low and zero-carbon fuels.

In the Context of Bangladesh



Bangladesh has a 710 km long coastline with an area of 1,18,813 sq. km. Total 700 Rivers are running across three borders of the country with 24,000 km of waterways. There are about 4,00,000 fishing boats operating in the interior and coastal areas of the country (Md. M. Maruf Hossain, Institute of Marine Science and Fisheries, July 17). Around 80% of Bangladesh trade by volume is transported by ships of different sorts and sizes. Chittagong port alone handles more than 80% of the country's imports and exports, making it the prime port of Bangladesh. The country's main export items such as clothes, jute, leather items, tea and frozen foods are taken through this port to the outside world. Bangladesh needs to position itself globally in terms of facilities and capacities to support and influence this growing trade and optimize its benefits. The country has emerged as a shipbuilding nation as well as ship recycling, and breaking industries have earned a global reputation. A good number of seafarers, academicians, surveyors, consultants are working at home and abroad with a reputation. The economy is heavily dependent on the maritime sector. Shipping is considered the safest, most secure and most efficient bulk transportation system with minimum rates of accidents and low terrorist incidents. Improving environmentally sound means of ships and significant

reductions in discharges to sea or emissions to air is the best way of sustainable development of shipping in Bangladesh.

Shipping activities are generally related to the pollutions coming from the vessel navigation activities, including low engine quality, shipping speed, dumping of the waste directly into water etc., shipyard production and breaking yard as well. In Bangladesh, the unregulated operations of a large number of vessels operating for inland and merchant shipping and due to lack of application of laws and lack of monitoring capacity of the concerned governments, pollution by the shipping at the ports and at other marine areas have become the common incident. Environmental pollutants that were banned decades ago, such as PCBs (Poly Chlorinated Biphenyl), are still found in the old ships. And when these ships are dismantled under primitive conditions, like on the beaches outside Chittagong, a number of pollutants are released into the air and water.

Worldwide consciousness on pollution from shipping, especially from the speed and its emissions, has already been started. It is high time for Bangladesh to be sincere, as shipping is one of the densely performed activities in our country.

The Bay of Bengal is home to the world's largest biodiversity. For sure, not only to protect the climate change but also to protect the huge commercially important marine species, especially to reduce the chances of whale collisions, coral destruction, and other mammal breeding, reduction of pollution from high ship speed is now also our regional demand. Environmental damages from shipping activities were mentioned in a report that

- Extinction of about 10 different species of seawater fishes
- 21 have become rare in Bangladesh

The reported effects of boat or ship noise produce from shipping speed include changes in both physical and acoustic behaviour on marine mammals.

Slowing down the speed limit of roughly operated eminently developed shipping industries is a short term and one of the easiest measures to protect the environment. Otherwise, those days are not so far when climate change due to shipping technique, shipping speed and their emission will disrupt the whole country, including inland and marine resources. According to article 193 of The United Nations Convention on the Law of the Sea (UNCLOS), all the member states have the sovereign right to develop their natural resources in accordance with their duty to protect and preserve the marine environment. Shipping plays a major role in the country's economy, so ship speed should not be so slower than its demand to supply goods on time, but considering the long term effect of emission, it is better to take proper action to get sustainable shipping as well as environment. Research on the potential impacts of water pollution that occurs from shipping speed on marine mammals and other commercially aquatic animals need to identify in terms of geographic areas, vessel type, vessel speed and type of impact. As one of the proven sources of climate change worldwide, Bangladesh should develop a plan for more research to understand the actual pollution rate from shipping speed

in the aspect of our shipping trend to take immediate action for climate change and to protect the aquatic habitat.

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