



Marine Sector

By
Dr. Sanjay Banerji

Founder Director/Dean of Amrita School of Business



Dear Friends,

This month we shall discuss shipping in the context of the Paris Agreement. As you may recall, emissions from shipping and aviation could not be assigned to a country, and therefore, these were left out, though not completely, of the Paris Agreement. The International Maritime Organization (IMO) is a global UN specialized agency, set up in 1948. [1] The UNFCCC tasked the IMO to devise ways and means to mitigate emissions from shipping. Beginning 2009, IMO has submitted their reports regularly to UNFCCC [2].



Shipping causes environmental pollution as ships dispose engine room waste, garbage, sewage etc. and emits GHGs. Accidental oil spills add to this problem. The Torrey Canyon accident drew global attention as it spilled 120,000 tonnes of oil in 1967.

An international convention was organised by IMO in 1973 for addressing pollution (both accidental as well as routine) from ships and it led to the adoption of MARPOL [4] - The International Convention for the Prevention of Pollution from Ships. India is a signatory to this convention.

The IMO established a GHG reduction regime, covering both design through Energy Efficiency Design Index (EEDI) and operations through Ship Energy Efficiency Management Plan (SEEMP). EEDI advocates design standards for all new ships for lower carbon intensity. SEEMP focuses upon operational efficiency measures for reducing GHG emissions.

Beginning its adoption in 2011, EEDI first came into effect in 2015 aiming at 10% reduction in new ships, progressively increasing the target to 20% in 2020 and a plan of 30% by 2025.



Source: IMO [7]

Simultaneously, SEEMP aims at reducing GHG emissions from existing ships through operational efficiency improvements. The IMO Info-graphic above captures some of the major initiatives [7].

For existing ships, it plans to reduce the carbon intensity by 40% with respect to the 2008 levels by 2030. [8]

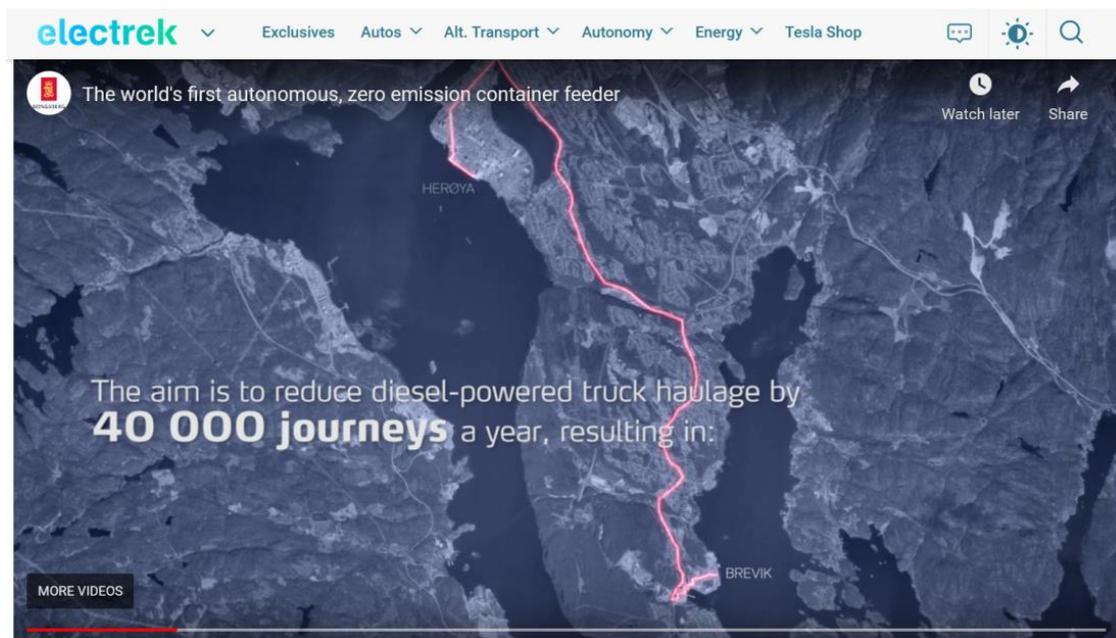
The IMO has a standing committee: ‘Marine Environment Protection Committee’ (MEPC). [3] This Committee is responsible for the control and prevention of ship-source pollution covered by the MARPOL treaty.

The MEPC in its 70th meeting set up an Inter-sessional Working Group on Reduction of GHG Emissions from Ships (ISWG – GHG). The ISWG in their 10th meeting in June 2021 proposed some mid-term measures for reducing GHG emissions. These proposals rely primarily on developing a carbon trading systems for shipping industry, along with a proposed levy of USD 100 per tonne of carbon dioxide equivalent on heavy fuel oil [5].

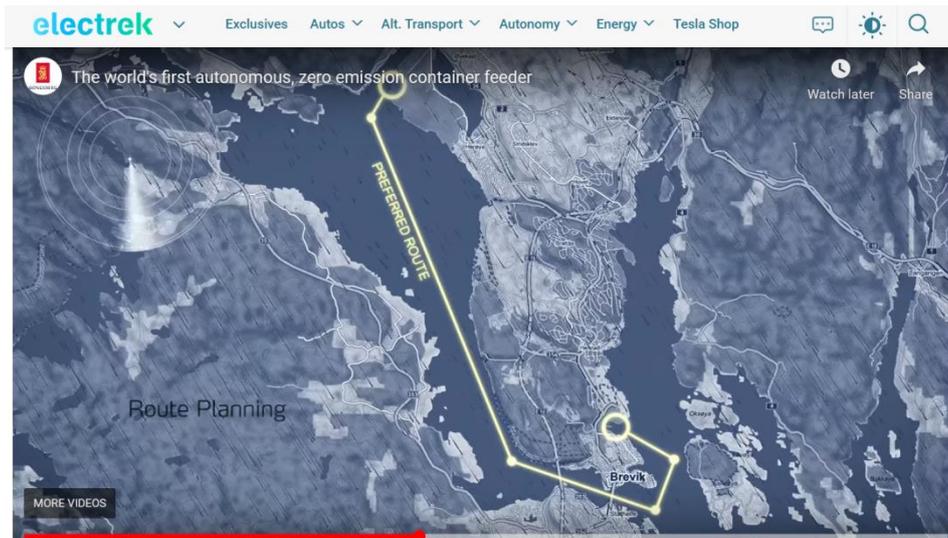
Unfortunately, the story in the marine sector is not much different form the aviation sector. Both sectors want a licence to continue to pollute, hoping to counter the same through carbon offsets and carbon trading, which are very doubtful to say the least.

However, there are some evidence of tangible efforts to minimise pollution from ships like EEDI and SEEMP. One such example is the case of a completely battery-operated ship developed by a fertiliser company in Norway. At present the company transports the fertilizer by trucks, and it plans to replace a part of the land movements by sea, using the battery-operated container ship. Fig. 1 below shows the existing land route and Fig. 2 shows the planned sea route. [6]

It is also testing a system to make the journey autonomously, thereby reducing human waste as well.



Existing land route



Proposed sea route

Eventually, as pointed out earlier, humanity must embrace the principle of sustainable consumption and production enshrined in SDG 12. One possible approach in this direction is to buy locally produced items for our regular needs. Now-a-days, it has become fashionable to consume apples, blue berries and other roasted fruits imported from Europe and USA, despite huge transportation costs involved. These are not essential food items and could be easily substituted by locally produced items.

References:

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