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SHIPPING

Shipping is one of the driving forces of the global economy. About 80% of the world's trade is carried by sea (UNCTAD, 2018). But there is a cost for ocean health. As well as a large and growing carbon footprint, shipping is responsible for chemical waste, air pollution, dumping of sewage, noise pollution and the transfer of invasive species across the ocean.

IMPACTS

Over 10 billion tonnes of goods are transported by sea every year, and the industry expanded by 4% from 2017 to 2018, the fastest rate in five years (UNCTAD, 2018). According to the International Chamber of Shipping there are over 50,000 merchant ships registered to 150 nations so it is not surprising that the shipping industry has a major impact on the ocean. Impacts include:

- Spills and discharge of oil and other chemicals
- Transfer of invasive species in ballast water and on ship hulls
- Release of biocides from the toxic chemicals in antifouling paints
- Dumping of garbage and sewage
- Physical damage caused by anchors, wave disturbance, striking marine mammals
- Damage to natural habitats near ports and shipping routes, including seagrass meadows, coral reefs and mangroves
- Contribution to global heating and air pollution through emission of sulphur dioxide, nitrogen oxides and CO₂ (WWF, n.d.)

SHIPPING AND THE CLIMATE EMERGENCY

Shipping is a major and growing source of global greenhouse gas emissions and air pollution. For the period 2007–2012, shipping accounted for approximately 3.1% of annual global CO₂ (IMO, 2014).

This is greater than the emissions of Germany, and if shipping were a country it would be the sixth biggest carbon emitter. And it is growing fast. Mid-range forecasted scenarios show that, by 2050, CO₂ emissions from international shipping could grow by between 50% and 250%, depending on economic growth and energy developments (IMO, 2014). This means that, left unchecked, shipping could be responsible for 17% of global emissions by 2050 and undermine the goals of the Paris Climate Agreement.

As well as contributing to global heating, shipping presents a major human health hazard. Global nitrogen oxide (NO_x) and sulphur oxide (SO_x) emissions from shipping represent about 15% and 13% of the total from anthropogenic sources (IMO, 2014). NO_x and SO_x emissions are responsible for around 400,000 premature deaths from lung cancer and cardiovascular disease and around 14 million childhood asthma cases every year (Sofiev et al., 2018).

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