

26 February 2024

Mr MK Mmoiemang, MP  
Chairperson of the Select Committee on Transport, Public Service and Administration, Public Works  
and Infrastructure

For Attention: Mr Hlupheka Mtileni  
Per e-mail: [hmtileni@parliament.gov.za](mailto:hmtileni@parliament.gov.za)

## **WRITTEN SUBMISSION ON MARINE POLLUTION (PREVENTION OF POLLUTION FROM SHIPS) AMENDMENT BILL**

Dear Mr Mmoiemang

We welcome the opportunity to give input to the Marine Pollution Amendment Bill.

The World Wide Fund for Nature (WWF) is the world's leading independent conservation organisation. We work to look after our natural resources — oceans, land, and wildlife — so we can continue to benefit from food, water, and a healthy climate. WWF engages with government, business, coastal communities, and seafood consumers to help develop an integrated approach to looking after our marine ecosystems which are under threat from a number of factors such as overfishing, pollution, and climate change. We also promote a transition to a low carbon climate-resilient future by supporting catalytic initiatives needed to drastically cut greenhouse emissions (mitigation) and convening high-level dialogue and ambitious target-setting with both government and big business.

We hereby submit our detailed comments on the bill below:

1. We strongly call for the inclusion of greenhouse gases in the definition of pollutants (emissions) associated with shipping. According to the United Nations Environment Programme, (UNEP) air pollution also includes greenhouse gases such as carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>) and nitrogen oxides (NO<sub>x</sub>)<sup>1</sup>. Anthropogenic greenhouse gases (GHGs) from activities such as shipping are known to cause global warming and climate change leading to “*substantial damages, and increasingly irreversible losses, in terrestrial, freshwater, cryosphere, and coastal and open ocean ecosystems*”<sup>2</sup>. Greenhouse gas emissions (GHGs) from shipping are mainly in the form of carbon dioxide (CO<sub>2</sub>) from the combustion engine<sup>3</sup>. Additionally, ships powered by Liquefied Natural Gas (LNG) have a methane slip of about 6%<sup>4</sup>, which means that 6% of the fuel (mostly methane) escapes uncombusted in the engine. Methane is a potent greenhouse gas which has 29.8 times the greenhouse gas warming potential of CO<sub>2</sub> measured over a 100 year period.

<sup>1</sup> <https://www.unep.org/news-and-stories/story/air-pollution-and-climate-change-two-sides-same-coin>

<sup>2</sup> [https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC\\_AR6\\_SYR\\_SPM.pdf](https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_SPM.pdf)

<sup>3</sup> [https://theicct.org/wp-content/uploads/2021/06/Global-shipping-GHG-emissions-2013-2015\\_ICCT-Report\\_17102017\\_vF.pdf](https://theicct.org/wp-content/uploads/2021/06/Global-shipping-GHG-emissions-2013-2015_ICCT-Report_17102017_vF.pdf)

<sup>4</sup> <https://theicct.org/wp-content/uploads/2023/11/ID-64-%E2%80%93-FUMES-ships-Report-A4-60037-FV.pdf>



As the global shipping industry contributes approximately 3% of annual greenhouse gas emissions globally<sup>5</sup>, it is imperative that greenhouse gas emissions from this industry are reduced so as to lower the impact of climate change. The International Maritime Organisation (IMO)'s revised GHG Strategy (July 2023) set ambitious targets for emissions reduction and alternative fuel uptake for the global shipping sector, aligned to the Paris Agreement goal of limiting global warming to well below 2 °C<sup>6</sup>. According to the IMO, the indicative check points to reach net zero are a 20% emission reduction target (striving for 30%) by 2030 and a 70% emission reduction (striving for 80%) by 2040 – compared to a 2008 baseline<sup>7</sup>. Zero and near zero greenhouse gas emission fuels are expected to play a key role in reduction of the shipping sectors GHG emissions, accounting for 5 – 10 % of fuels used by international shipping in 2030. These fuels will not only reduce greenhouse gas emissions but would contribute to the reduction of local pollutants (sulphur oxides, nitrogen oxides, and particulate matter)<sup>8</sup>, thus supporting the reduction of other pollutants already mentioned in the Marine Pollution Act. As a signatory of both IMO GHG strategy and Paris Agreement, South Africa should look to implement measures to reduce emissions from its shipping sector in line with its international agreements. The indicative emission reduction targets proposed by IMO could be adopted to be part of South Africa's Marine Pollution Act to ensure that reduction of greenhouse gas emissions is accounted for. The production of cleaner fuels for the maritime industry is a key part of South Africa's green hydrogen commercialisation strategy<sup>9</sup> thus the Marine Pollution Act can also refer to this policy document to layout a roadmap for adoption of alternative fuels in the sector.

With respect to fishing vessels, the GHG emissions are directly linked to the type of gear/operation<sup>10</sup>. Reducing the carbon footprint will encourage fisheries to consider alternative gear/operational measures that reduce carbon emissions and result in more sustainable fishing practises<sup>11</sup>. Such measures could include using more selective gear that minimises bycatches and reduced overfishing, reducing idling time while fishing or consider using hybrid propulsion system.

2. The act also needs to make to address noise pollution emanating from ships, particularly when transversing through sensitive habitat, e.g. core foraging grounds for African penguins. Mitigation could relate to reducing ship speed in these areas as one mitigation measure or to avoid the area if possible and to prohibit bunkering at sea in these sensitive areas. Prohibiting bunkering in these sensitive areas has a dual role in mitigating noise pollution and reduces the risk of oil spillage and impact on the environment. Noise pollution emanating through seismic surveys should also be reduced to lower decibel levels that are considered safe for the environment and should be use alternative methods to the air gun array.
3. Other pollution forms from ships also needs to be better regulated, such as hypersaline water and warm water discharged from ships emanating through alternative gas-generated energy. This has already led to several environmental organisations taking legal actions against companies seeking to do such activities on the South African coastline<sup>12</sup>.

<sup>5</sup> <https://www.weforum.org/agenda/2022/11/how-the-shipping-industry-is-sailing-towards-zero-emission-targets/>

<sup>6</sup> <https://theicct.org/marine-imo-updated-ghg-strategy-jul23/>

<sup>7</sup> <https://www.imo.org/en/MediaCentre/PressBriefings/pages/Revised-GHG-reduction-strategy-for-global-shipping-adopted-.aspx>

<sup>8</sup> <https://doi.org/10.1016/j.jclepro.2017.10.165>

<sup>9</sup> [https://idc.co.za/wp-content/uploads/2022/12/Full-Report-Green-Hydrogen-Commercialisation-Strategy-30Nov22\\_Public\\_Ver1-1.pdf](https://idc.co.za/wp-content/uploads/2022/12/Full-Report-Green-Hydrogen-Commercialisation-Strategy-30Nov22_Public_Ver1-1.pdf)

<sup>10</sup> <https://doi.org/10.1111/faf.12087>

<sup>11</sup> <https://sancor.nrf.ac.za/Documents/11Mar2024WWF-SASSI.pdf>

<sup>12</sup> [https://thegreenconnection.org.za/wp-content/uploads/2023/12/Annex-2-Karpowership-Saldanha-Appeal\\_.pdf](https://thegreenconnection.org.za/wp-content/uploads/2023/12/Annex-2-Karpowership-Saldanha-Appeal_.pdf)



4. Light pollution from ships needs attention to mitigate the negative impacts on the environment. An example here is the squid fishery that uses bright lights in coastal waters at night to attract squid to the surface, however the unintended consequence is the impact on flying insects' ability to navigate, which may result in many pollinating flying insects being lost at sea. This would need further investigation to better understand the impact and to introduce mitigation measures if need be.

In conclusion, WWF calls for the inclusion of a subsection relating to the prevention of greenhouse gas pollutants from shipping so as to reduce the catastrophic impacts of climate change. Using low carbon emission technologies to achieve this goal would also result in the decrease in other local pollutants contributing to existing objectives of the act, while also resulting in improved fishing practises. We also highly recommend that other forms of pollution to be included in the bill namely, noise and light pollution as well as hypersaline water and warm water discharged from ships.

Please reach out to us if you have any questions.

Kind Regards,

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