Institute of Marine Engineering, Science and Technology

Position Statement – Climate Change

Introduction

Climate change is one of the most important global issues facing humanity today. Although climate change can be a natural process, it is now being exacerbated by human activities. Since the Industrial Revolution, greenhouse gas (GHG) emissions such as carbon dioxide and methane have caused an increase in global warming, significantly adding to any natural factors already influencing climate change. Climate change, and its impacts, are now unequivocally recognised by the global community represented through the parties to the United Nations Framework Convention on Climate Change (UNFCCC).

Position

The IMarEST believes that comprehensive, immediate, and sustained measures must be taken to reduce GHG emissions in the maritime sector and to mitigate the effects of climate change. The increasing frequency and intensity of extreme weather events, rising sea-levels and shifting climate patterns underscore the need for such actions to mitigate its impacts (International Maritime Organisation (IMO)). The maritime sector should address the challenge on a range of fronts, including transitioning to alternative energy sources, implementing sustainable practices, and promoting sustainable development throughout the marine and maritime industry (International Maritime Organisation (IMO)). The IMarEST believes that a sustainable transition to lower or zero carbon is needed. However, there may be a place for oil and gas derived transitional fuels (e.g. LNG) and there will still be a need for jobs in the oil and gas sector in the transition to net zero; no one should be displaced from their job due to this transition.

Supporting Arguments

Environmental Impact

The environment, both land and sea, are affected by climate change. Research suggests that human activities have unequivocally had a profound impact on climate change, and that human activity is the primary driver of climate change. The Intergovernmental Panel on Climate Change (IPCC) reports global surface temperatures have reached 1.1°C above 1850 – 1900 in 2011 – 2020 (IPCC, 2023). This increase in average temperature has led to more frequent and severe weather events across all regions of the globe and has negatively affected biodiversity and ecosystems.

Economic Cost and Job Security

The consequences of inaction on climate change have huge economic ramifications. Naturally occurring weather events such as wildfires, floods, and hurricanes are exacerbated by climate change, and the damage caused by these weather events cost billions or trillions of dollars annually (Kotz, et al., 2024). Adaptation and mitigation measures in coastal areas, a transition to renewable energy, and investing in sustainable infrastructure are key factors to tackling climate change and reducing the impacts of human activity on the globe. These strategies can not only reduce the cost of damages but can also create new and sustainable jobs (Godard, 2008). With new technologies and measures being developed, there will be new jobs created within, not only the marine and maritime industry, but across all industries that are affected by climate change. Along with traditional jobs,

such as those in the oil and gas sector, the generation of new sustainable jobs in the renewable industry will mean a more diverse workforce in the energy sector. Through training and support, existing employees can be upskilled to develop their capabilities to ensure a proper transition of valuable intersectional knowledge.

As well as the economic cost on larger countries, smaller more vulnerable countries are disproportionally affected by rising average global temperatures, and these countries usually have contributed the least to climate change (IPCC, 2023). These vulnerable countries consist of Small Island Developing (SIDs) nations in three geographical regions (the Caribbean, the Pacific, and the Atlantic, Indian Ocean and South China Sea (AIS))(United Nations).

IMarEST Input

The IMarEST is an observer organisation at the Intergovernmental Panel for Climate Change (IPCC) and supports and endorses its work. In addition, as a Non-Governmental Organisation (NGO) in consultative status with the International Maritime Organization (IMO), the IMarEST works to support the initiatives undertaken by the IMO to reduce emissions from shipping. A number of IMarEST Special Interest Groups as well as the IMarEST Greenhouse Gas Policy Engagement Unit represent the IMarEST at consultative meetings and inform our membership and the wider community on aspects of climate change in accordance with the IMarEST vision of being the trusted voice across the marine sector and being the global community for all marine professionals distinguished as leaders in shaping a sustainable world.

Conclusion

In conclusion, the IMarEST believes that climate change is one of the most pressing issues effecting humankind today. Climate inaction has both economic and environmental ramifications, and there is a need for a renewable transition to sustainable practices. Immediate and effective action is needed across all industries, including the marine and maritime sector, and facets of life to reduce the effects of climate change on the planet.

References

Godard, O., 2008. The Stern Review on the Economics of Climate Change: contents, insights and assessment of the critical debate. *S.A.P.I.E.N.S [Online]*, Volume 1.1. Available at: http://journals.openedition.org/sapiens/240.

International Maritime Organisation (IMO). *2023 IMO Strategy on Reduction of GHG Emissions from Ships.* [Online]
Available at: https://www.imo.org/en/OurWork/Environment/Pages/2023-IMO-Strategy-on-Reduction-of-GHG-Emissions-from-Ships.aspx
[Accessed September 2024].

IPCC, 2023. *Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)]*, Geneva, Switerland: IPCC. DOI: 10.59327/IPCC/AR6-9789291691647.

Kotz, M., Levermann, A. & Wenz, L., 2024. The economic commitment of climate change. *Nature,* Volume 628, pp. 551-557. DOI: 10.1038/s41586-024-07219-0.

United Nations. *Office of the High Representative for the Least Develop Countries, Landlocked Developing Countries and Small Island Developing States.* [Online]
Available at: https://www.un.org/ohrlls/content/about-small-island-developing-states
[Accessed September 2024].