

The Impact Of Key Global Influences On The Sustainability Of Shipping

Posted on June 8, 2023

Introduction

Throughout history, shipping has remained one of the most important activities undertaken by humans. This human activity is particularly important in today's day and age, where the prosperity of world economies is heavily reliant upon interregional trade and international relations (Corbett and Winebrake, 2008). Globalization has not only revolutionized the world of communication but has also impacted international standardization and accelerated trade liberation. In addition to these three cornerstones of globalization, transportation is regarded as its fourth foundational unit (Kumar et al., 2002). In this fast-paced world of today, countries cannot exist in isolation as the stability of nations depends upon various economic, technological, social, and cultural forces. Cross-border trade and foreign investments are central to ensuring the flow of goods, services, knowledge, and other resources. A crucial element of this international trade is the global freight transport system, especially the one that is carried across coastal routes and oceans. Approximately 90% of the world's goods transportation is carried out through ocean shipping (OECD, 2022). With globalization, there is an increased emphasis on measures that ensure sustainable development. This research paper aims to evaluate the impact of key global influences on the sustainability of shipping.

Sustainable Development Goals and Shipping

In 2015, the United Nations adopted the Sustainable Development Goals (SDGs). These goals aimed to eradicate poverty, combat inequality, and take measures to deal with climate change. This plan, i.e., the 2030 Agenda, is aimed towards the people, the planet, and prosperity. The 17 interrelated SDGs impact the developmental outcomes of various areas; therefore, it is imperative that balance is maintained to ensure the sustainability of economic, social, and environmental factors (UNDP, 2021). The International Maritime Organization (IMO) is not only responsible for safeguarding the shipping industry but is also actively working for the implementation of the 2030 agenda through various environmental initiatives aimed at preventing pollution by ships. Additionally, shipping plays a significant role in the reduction of poverty and bringing prosperity to nations through the movement of goods and other resources. The IMO has outlined targets that are in line with the SDG and focus on environmental outcomes and improving the efficiency of shipping. Following the theme of "sustainable shipping for the sustainable planet", the IMO contributes to the attainment of SDGs (IMO, 2019). Although the IMO collaborates with numerous partners to attain all the United Nations SDGs, this section presents ten SDGs and the IMO's role in ensuring sustainability:

Poverty

To cater to the goal of ending poverty, marine transportation plays a central role as billions of people globally rely on shipping services for the movement of products and other resources. Maritime transportation is considered one of the most fuel-efficient and economical means of goods shipping. It is not only the backbone of global trade but also supports commerce and drives the prosperity of nations. Through the provision of basic resources, shipping plays a vital role in eradicating the poverty of millions of people.

Zero Hunger

Fish is one of the primary food groups consumed globally. The IMO, together with the “Food and Agriculture Organization (FAO)” monitors illegal fishing activities. Unregulated fishing activities negatively impact not only the environment but also sustainability. It is a threat to the livelihood of millions of fishermen who administer sustainable processes. The IMO and other organizations collaborate to ensure food security and eradicate hunger. Shipping is also central to the global import and export of food items and is an important means of keeping the community of producers and consumers connected.

Good Health and Well-Being

The coastal areas all around the world are becoming increasingly populated. As part of environment-friendly initiatives, there is an increased focus on reducing shipping-related ocean pollutants. Additionally, pollution reduction along coastal regions and ports is also emphasized. The actions for a sustainable environment include strict regulation of carbon emissions and a notable decline in the sulfur content of ship oil. These initiatives would not only bring benefits to the environment but also impact the health of individuals residing along the coastal lines and in the port cities.

Affordable and Clean Energy

The sustainability of shipping is greatly impacted by the developmental goal focusing on the provision of clean and affordable energy. The IMO emphasizes international collaboration for the provision of fuel-efficient, innovative, and cleaner fossil-fuel technology. Through initiatives such as the “Global Maritime Energy Efficiency Partnership”, IMO facilitates investments in infrastructure development and advancement of eco-friendly energy technology. Since September 2015, IMO has been collaborating with partners such as the “Global Environment Facility” and the “United Nations Development Program” to build regional, national, and global partnerships and capacity building for efficient energy.

Decent Work and Economic Growth

In our daily lives, the provision of essentials has become possible through the relentless efforts of seafarers. The shipping industry has employed more than a million mariners to operate the global fleet. While shipping is the backbone of world trade, it would not be possible without seafarers. Therefore, their safety, welfare, and compensation are of prime importance for the IMO as it continues to work towards making their lives better and motivating them through various initiatives such as the “Annual Day of the Seafarer”, aimed to acclaim the mariners globally.

Industry, Innovation, and Infrastructure

The efficiency of the shipping sector relies upon the development of infrastructure and technological advancements. These developments are also central to ensuring the attainment of many SDGs. Continuous innovation is imperative to ensure global stability and sustainability that would bring benefits to the people. The IMO collaborates with its member states and provides the regulatory framework for the exchange of knowledge, skills, and experience that drives innovation. The progressive technology introduced within the shipping industry has resulted in ships that are advanced in design, construction, and operation, leading to an increasingly efficient and strongly connected global supply chain.

Responsible Consumption and Production

Reduced waste production and its efficient disposal are important for the sustainability of the environment and resources. The IMO regulates the dumping of waste and garbage through efficient management procedures. Additionally, it emphasizes effective wastewater management, recycling, eco-friendly technologies, and sustainable consumption of resources.

Climate Action

One of the most important issues of this era that countries across the world are globally addressing is combating climate change and minimizing its impact. It is a great challenge that has been addressed by the IMO for the past decade. The sustainability of shipping is dependent upon controlled emissions and the phasing out of greenhouse gases. Climate action will continue to be an important area for the IMO as it strives to minimize air pollution and water contamination resulting from freight transportation.

Life Below Water

The outcomes of SDGs are interrelated, and the consequences of one impact the other. Conservation of ocean life and maintaining the delicate balance of the marine ecosystem are dependent upon sustainable shipping. Preventing pollution from ships and catering to every dimension of shipping, such as design, structure, management, manning, and disposal, is vital for a secure, eco-friendly, and energy-efficient sector.

Peace, Justice, and Strong Institutions

The sustainability of maritime transportation is regulated through different treaties that address a variety of aspects related to ships and shipping. It also outlines guidelines for developing countries to monitor their operations for secure and environmentally safe seafaring commerce (IMO, 2019).

The Future of Sustainability in Shipping

While addressing the idea of sustainability in shipping, the current initiatives are important; however, it is imperative to shed light on the costs and gains of future sustainability in the field. In the current era, sustainability is the long-term outcome for every institution, and four important factors must be addressed for the continued journey towards it. These include conformance to the environmental rules and regulations, promoting a sustainable work environment, increasing efficiency, and use of alternative sustainable resources.

Environmental Regulations

The future of sustainability in shipping is guided by certain environmental regulations proposed by the IMO. The IMO's 2023 greenhouse-gas strategy retains the goal of reducing international shipping's carbon intensity by at least 40% by 2030 and adds checkpoints for total annual greenhouse-gas emissions: at least 20% below 2008 levels by 2030, striving for 30%; at least 70% by 2040, striving for 80%; and net-zero emissions by or around 2050. Apart from a few, all countries around the globe comply with these environmental regulations by adopting measures at a personal level, meeting individual targets, and contributing to cumulative target achievement. Globally, shipping companies have become increasingly proactive to ensure organizational sustainability. In this regard, the "Sustainable Shipping Initiative (SSI)" is an excellent example of industry leaders coming together to create a more viable shipping industry. The initiative focuses on the adaptability of the shipping industry in this time of environmental crisis and provides a road map for improvement. The SSI also outlines environmental regulations to ensure conscientious governance of the oceans, building trust among leaders of the industry, ensuring accountability and transparency of decision-making, and regulating economic solutions to sustain performance (SSI, 2020).

Sustainable Work Environment

The workforce of any organization is reflective of its values and beliefs. To create a sustainable industry, the workforce must adopt these principles individually to reflect them on a larger scale. Promoting a sustainable work environment would be increasingly beneficial for the shipping industry as it would increase productivity, ensure transparency, build trust, and ensure a safe and secure work environment for the seafarers. A sustainable work environment can be achieved through the adoption of existing technology and by being open to innovations to meet the requirements of this dynamic industry. Moreover, a sustainable work environment can be created by standardizing the design, construction, operation, and manning of shipping vessels.

Increasing Efficiency

The future of sustainability in shipping is largely dependent upon increased efficiency. By improving the efficiency of vessels, the industry can gain tremendously in terms of sustainability. Since 2013, the IMO has implemented the “Energy Efficiency Design Index”, which outlines the minimum limit of energy efficiency for each ship. To ensure compliance with this limit, engineers continually strive to innovate and create designs that are sustainable, efficient and improved (DNV, 2021). Currently, as well as in the future, the goal is to utilize alternative resources to augment sustainability.

Use of Alternative Sustainable Resources

To reduce greenhouse gas emissions and for the attainment of sustainability goals of the shipping sector, exploration and use of alternative fuel sources are imperative. The use of renewable energy is important for the conservation of natural resources. Additionally, designing hybrid vessels and automated functions are being introduced. The use of solar and wind energy is expected to cut down approximately 69% of carbon emissions. Research and innovation in this field would enable eco-friendly operations and make shipping one of the most sustainable freight transportation systems (SMH Group, 2019).

Conclusion

By aligning its outcomes with the sustainable development goals of the United Nations, the IMO is currently paving the way for a sustainable shipping industry. By collaborating with different organizations and adopting regulatory frameworks, shipping can implement the best practices to ensure that the outcomes for people, the planet, and prosperity are achieved.

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