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CARIBBEAN SHIPPING LANES

UNITED NATIONS FOUNDATION

Stakeholder Engagement Study **Focus Group Discussions Report**

Part II

Prepared For :
Caribbean Shipping Lanes (CSL)

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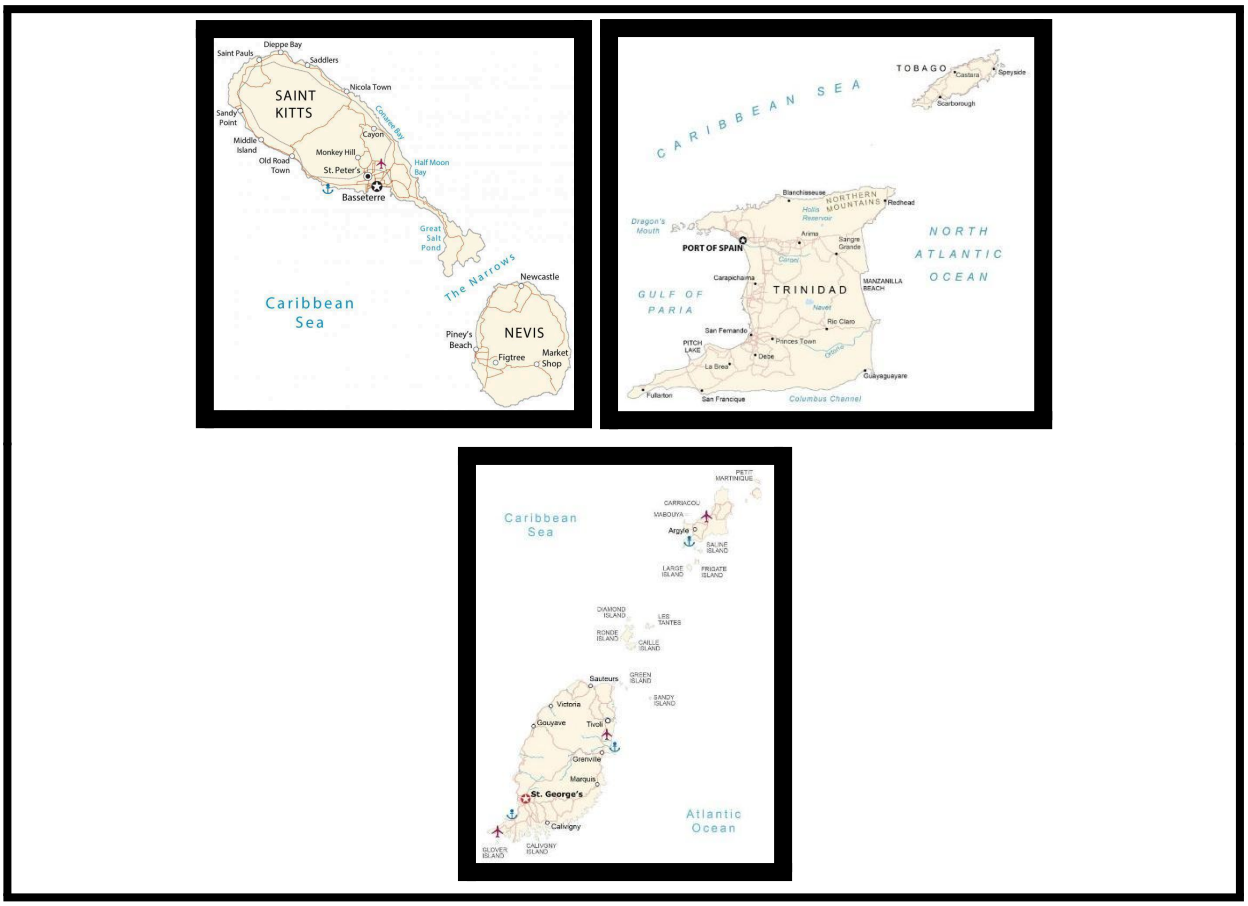
STAKEHOLDER ENGAGEMENT STUDY

CSL FOCUS GROUP DISCUSSIONS REPORT:

PART II



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Abbreviations and Acronyms

CII	Carbon Intensity Indicator
DNI	Disproportionate negative impact
GFS	Global fuel standard
GHG	Greenhouse gases
IMO	International Maritime Organization
IMO CARES	IMO Coordinated Actions to Reduce GHG Emissions from Shipping Project, funded by the Kingdom of Saudi Arabia to assist developing countries in meeting targets under the 2023 IMO GHG Strategy
ISWG-GHG	Inter-Sessional Working Group on Reduction of GHG Emissions from Ships
JET	Just and equitable transition
LNG	Liquefied Natural Gas
MEPC	Marine Environment Protection Committee
MTCC- Caribbean	Maritime Technology Cooperation Centre - Caribbean
UNFCCC	United Nations Framework Convention on Climate Change

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Scope and Rationale

1) Project Title:	Caribbean Shipping Lanes Stakeholder Engagement on the Impacts of Proposed IMO Maritime GHG Reduction Measures
2) Geographical Focus:	Trinidad and Tobago, Grenada, St Kitts and Nevis
3) Scope	Caribbean Region
4) Sustainable Development Goal(s) (SDGs) addressed	SDG 7, 9, 12, 13
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EXECUTIVE SUMMARY

The Caribbean Shipping Lanes Project (CSL), led by the Shridath Ramphal Centre for International Trade Law, Policy & Services (SRC) at The University of the West Indies, in partnership with the United Nations Foundation and the Belize Port Authority, is providing critical technical support to Caribbean nations participating in ongoing negotiations at the International Maritime Organization (IMO). These negotiations focus on the development of midterm measures to implement the 2023 IMO Strategy on the Reduction of Greenhouse Gas (GHG) Emissions from Ships.

The second phase of CSL's stakeholder engagement sessions took place from 10–21 April 2025. Stakeholder sessions served as preparatory exercises for negotiators attending the Intersessional Working Group on GHG Emissions Reduction (ISWG-GHG 19) held from 31 March–1 April 2025, and the 83rd session of the Marine Environment Protection Committee (MEPC 83), convened from 7–11 April 2025 at IMO Headquarters in London. Maritime Administrators from all participating countries were actively involved in these negotiations.

Stakeholder sessions were held in Trinidad and Tobago, Grenada, and St. Kitts and Nevis. As with the first round of consultations, participants generally exhibited limited familiarity with the IMO GHG Strategy. However, they demonstrated a stronger understanding of climate change mitigation and adaptation measures, reflecting growing awareness of environmental and resilience issues affecting the region.

Discussions on the proposed universal levy on global shipping emissions revealed diverse perspectives. Some stakeholders questioned the necessity of such a levy, citing shipping's relatively modest contribution to global emissions compared to other sectors. However, given the Caribbean's significant reliance on maritime trade, the sector's anticipated growth, and the IMO's global commitment to decarbonizing international shipping, it is essential that the region engages actively in shaping the mid-term measures. Doing so will help ensure that the Caribbean's unique vulnerabilities and economic realities are adequately reflected in the final framework.

Concerns were raised about potential maritime transport cost increases and the risk that higher operational expenses could drive some shipping companies to exit the regional market or reroute services, nevertheless, stakeholders also identified opportunities that might materialise if revenues from the levy are strategically reinvested. Such revenues could support vulnerable States such as St. Kitts and Nevis in adopting cleaner fuels, modernizing port infrastructure, subsidizing local businesses, and improving energy efficiency.

Key challenges identified during the sessions included financial constraints, infrastructure gaps and socio-economic impacts on vulnerable populations. While

there was general support for a transition to greener maritime practices, stakeholders emphasized the need for robust international assistance and context-specific support for Small Island Developing States (SIDS). The consensus was clear: any transition must be fair and equitable, reflecting the region's limited resources and heavy reliance on imports. Supporting vulnerable populations throughout the process emerged as a critical priority.

The engagement sessions provided a valuable forum for stakeholders to consolidate their views, raise concerns, and explore potential mitigation initiatives. These discussions now form a strong basis for advancing more targeted national consultations, particularly in light of the outcomes of MEPC 83.

Stakeholders benefited from the clarification of key issues and the sharing of national, regional, and international updates by presenters and participants. The sessions reinforced the value of inter-agency coordination, particularly in advancing the decarbonization of maritime transport. They also highlighted opportunities for further research. In St. Kitts and Nevis, for example, concerns about food security could be meaningfully addressed through the development of data-driven position papers, supported by available statistical evidence on trade flows, inflation trends, and local crop, livestock, and fisheries production.

It is clear that shipowners and operators are most likely to adopt technologies that offer a net benefit in terms of cost savings and fuel efficiency during the transition to cleaner fuels. Caribbean SIDS can position themselves to benefit from this shift by offering services that support these technologies, particularly through the development of infrastructure for alternative fuel bunkering and the provision of shore power generated from renewable energy sources.

Stakeholders identified key operational challenges associated with the production, storage, and handling of alternative fuels. Discussions highlighted the urgent need to modernize port infrastructure to accommodate the bunkering of e-fuels such as e-methane and e-ammonia, while acknowledging the significant costs and economies of scale required for upgrading and maintaining such facilities.

The Caribbean region possesses distinct opportunities. Trinidad and Tobago's LaBrea Industrial Development Company Limited (LABIDCO) is recognized as the first Caribbean 'Green Port'. Port Galeota which is piloting wind-assist vessel technologies in Trinidad and Tobago and Port Zante in St. Kitts and Nevis which is exploring wind turbine installations, all serve as strong case study candidates. Jamaica's established maritime cluster which encompasses cargo transshipment, bunkering services, and cruise ship terminals, also offers a proven model of regional capacity.

Rather than duplicating capabilities, the Caribbean can scale and extend these existing assets through regional partnerships and collaborative initiatives. This

approach can help meet both maritime decarbonization targets and broader economic development goals.

Importantly, not all stakeholder countries have ratified MARPOL Annex VI, which is a critical prerequisite for aligning with international standards on the prevention of air pollution from ships. This gap presents a significant barrier to the effective implementation of the IMO's GHG Strategy.

To address this, the legal and institutional frameworks of maritime authorities across the region must be strengthened. Enhanced regulatory capacity, legislative reform, and targeted institutional support are essential to ensure compliance, facilitate enforcement, and enable the successful adoption of midterm measures under the Strategy.

1. Introduction

This Report covers the second phase of stakeholder engagement sessions in Trinidad and Tobago, Grenada and St Kitts and Nevis during 10th March to 21st March 2025. Earlier sessions were convened in St Vincent and the Grenadines, Saint Lucia, Jamaica and Antigua and Barbuda over the period 20th January 2025 to 31st January 2025. During these sessions, qualitative data was gathered on the potential impact of the mid-term measures regarding import and export of essential goods, food security, livelihoods, ports infrastructure and the transition to alternative fuels as part of climate change mitigation and adaptation measures.

Maritime Administrators from the focus group countries who participated in the ISWG-GHG 19 and MEPC 83 negotiations played a key role in organizing and delivering the stakeholder sessions and their engagement helped ground the discussions in the realities of the ongoing IMO negotiations. These delegations are well-positioned to maintain continuity and institutional memory, ensuring that national actions remain informed by and are responsive to international efforts at advancing the GHG Strategy at national and international levels.

2. Limitations

Initial limitations observed during the first phase of stakeholder engagements were largely addressed in the second phase, despite some early challenges with the hybrid and in-person format of the sessions. Participants expressed appreciation for the opportunity to engage in knowledge exchange and welcomed the time dedicated to building awareness and understanding of the issues.

3. Methodology

The methodology used for the second phase of the stakeholder engagement sessions is the same as outlined in the first report (CSL Stakeholder Engagement Study, Focus Group Discussions Report).

4. Key Findings

4.1 Discussions as a basis for National Consultations

The sessions provided a valuable platform for consolidating stakeholder perspectives on the potential impacts of implementing the IMO's GHG reduction measures. It created space for stakeholders to express concerns, share experiences, and explore practical options to mitigate anticipated challenges. By bringing together a diverse group of stakeholders, the sessions enabled clarification of key issues and the exchange of critical updates across national, regional, and international levels. Many participants gained new insights into developments they had not been fully aware of, underscoring the value of continued dialogue and information-sharing in advancing maritime decarbonization efforts. These engagements serve as a strong foundation for deeper national-level consultations for assessing the implications of the outcomes from MEPC 83.

Sustaining this momentum is vital. The creation of in-country Task Forces has been suggested as a mechanism to maintain focus on key issues and prioritize next steps. Maritime Administrators who represented their countries during the IMO negotiations are well-positioned to coordinate the functioning of such Task Forces in the implementation phase of the mid-term measures under the revised GHG Strategy. Where maritime structures such as Ocean Governance Committees are operational, Task Forces can be established as subcommittees.

4.2 Why Regulate Shipping Emissions?

Some stakeholders questioned the rationale for regulating shipping emissions, noting that the sector contributes approximately 3% of global emissions, a small contribution to the totality of GHG emissions.

It was clarified that the IMO holds a clear mandate to address emissions from international shipping. For the Caribbean, where up to 98% of goods are transported by sea, (significantly higher than the global average of around 80%), the issue extends beyond food security and encompasses broader concerns of transport and energy security, highlighting the maritime sector's critical role in the region's overall resilience.

Focusing solely on shipping's current share of global emissions could be misleading. Shipping's relative contribution is expected to grow as other sectors, particularly power generation and land transport decarbonize more rapidly. Without intervention, emissions from the sector could increase by up to 190% by 2050. (Nanan, 2025).

Meeting broader emissions reduction targets

As one participant from a national energy company observed, the commitment to decarbonizing shipping is already embedded within national climate change mitigation goals. However, companies continue to face growing demands for power generation, even as they work toward emissions reduction targets such as the 30% cut outlined in national climate action plans. Meeting additional energy demands, including providing shore power for cruise and cargo vessels, adds to this pressure.

During discussions in Grenada, the prohibitive cost of solar energy generation compared to conventional fuels was highlighted. It was noted that producing 21 megawatts of solar energy would cost twice as much as generating 20 megawatts using dual-fuel technology specifically, a combination of diesel and LNG. While both solar and dual-fuel plants have similar implementation timelines (approximately 18–20 months), the cost differential raises significant concerns for investment decisions.

The challenge is further complicated by the dynamic nature of energy demand and emissions. As infrastructure expands and cleaner technologies are introduced, overall domestic energy consumption often increases, potentially offsetting emissions reductions. Without sustainable long-term practices, these gains may be short-lived, underscoring the need for integrated planning and investment in green energy systems.

Another concern raised was the approach of large multinational companies to achieving net-zero goals. Participants observed that while these companies may invest in alternative fuels, they often rely heavily on carbon offset mechanisms such as developing renewable energy projects in other parts of the world to meet their emissions targets. While this enables them to claim progress toward net-zero, it does not necessarily support emissions reduction or energy transition efforts within the Caribbean. The region urgently requires direct investment in clean fuel production, port infrastructure, and localized decarbonization strategies.

These concerns highlight the need for more targeted discussions among sector stakeholders. Further dialogue is needed to unpack these net-zero dilemmas within the context of maritime emissions reduction. Clearer understanding of technical components such as the operation of the Z-factor (the reduction factor), the required annual percentage reduction in Global Fuel Intensity (GFI) to meet GHG intensity targets relative to a 2008 baseline, and the use of remedial units as penalties will be critical. Stakeholders must be well-equipped to interpret and respond to the

outcomes of MEPC 83 and the mid-term measures agreed upon to implement the IMO's revised GHG Strategy.

While this places additional pressure on Caribbean States, many of which are not major emitters but are already highly vulnerable to climate shocks, it is essential that all sectors contribute to global emissions reductions. This is particularly true for maritime transport, given that nearly every essential good in the region including food, fuel, construction materials, medicines, and vehicle parts, arrives by ship. At the same time, the scale and speed of the transition must be accompanied by adequate financial and technical support. This is especially critical for SIDS, which often lack the capacity and resources to undertake such a transition alone.

4.3 Opportunities for transition to alternative fuels

Participants emphasized the importance of adopting greener technologies and cleaner fuels as a core component of the maritime decarbonization pathway. These choices have direct implications for engine design, port infrastructure, and the training of personnel in the safe handling of alternative fuels.

As the shipping industry faces increased pressure to decarbonize and comply with new IMO GHG reduction measures, the role of fuel standards becomes even more critical. There was broad consensus that transition fuels such as Liquefied Natural Gas (LNG), while cleaner than diesel, offer only limited long-term benefit. It was clarified that LNG should not be seen as a long-term solution due to its continued carbon emissions and potential methane slip, underscoring the need for accelerated investment in truly zero-carbon fuels.

Biodiesel, once seen as promising, could also be considered problematic due to land-use change impacts (e.g., monocropping, pesticide use and deforestation for palm oil and other feedstocks) and food versus fuel conflicts (e.g., using corn for fuel instead of food). Positive developments included the Paria Fuel Trading Company's projected entry into hydro-treated vegetable oil (HVO) trading in mid-2025. The company obtained International Sustainability and Carbon Certification (ISCC) by exposing its processes for certification to trade in the commodity and preparing storage and bunkering facilities segregated from the hydrocarbon side of the business. Although the cost of doing so was approximately three times higher than trading in conventional fuels, it was estimated that as technology progressed, the cost would become less prohibitive and could lead to business expansion.

CSL's presentation on renewable energy and alternative fuel opportunities emphasized the Caribbean region's strategic proximity to major biofuel production hubs in the United States and Brazil. This geographic advantage presents significant opportunities for States like Trinidad and Tobago, whose existing ammonia and methanol production and storage infrastructure places it in a strong position to lead

in the development of next-generation fuels such as green ammonia and green hydrogen. Trinidad and Tobago's LaBrea Industrial Development Company Limited (LABIDCO) exported methanol from its Port of Brighton in 2020 and is the first Caricom port awarded eco-port certification in December 2024 (La Brea Industrial Development Company Limited [LABIDCO], 2025). Methanex, the world's largest producer and trader of methanol with two plants in Trinidad and Tobago, conducted ship-to-ship bunkering operations at Point Lisas Port in August 2024, underscoring its readiness to support the transition to low-emission fuels (Ship and Bunker, 2024; Loop News, 2024). The National Energy Corporation is also poised to implement new technology on one of their vessels to see how it performs.

Participants discussed opportunities to retrofit existing bunkering infrastructure to accommodate green fuels, underscoring the need for dedicated systems to support the purchase, storage, and resale of alternative fuels. It was noted that, across most Caribbean islands, fuel storage terminals are typically located near power generation plants, offering logistical advantages for future fuel supply chains.

Curaçao, Saint Lucia, The Bahamas, and Trinidad and Tobago were highlighted as having existing storage capacity that could serve as a foundation for retrofitting to support near-zero and zero-emission fuels. Additionally, the close proximity of cruise and cargo terminals to these generation facilities in many locations reduces potential challenges related to electricity transmission for shore power.

Despite this favourable infrastructure, participants emphasized that scaling up renewable energy generation is critical to enabling the green transition. Solar energy was identified as a key priority, with Grenada currently assessing the feasibility of solar farms projected to generate approximately 21 megawatts of electricity.

The CSL stakeholder presentation by Kenesjay Green Limited, underscored a central issue: How can the Caribbean strategically leverage its existing energy resources to scale up production of alternative fuels to a commercially viable level, and become a competitive supplier in the global energy transition? (Kenesjay Green Ltd 2025). Addressing this question will be crucial to shaping a practical and profitable pathway for regional leadership in maritime decarbonization.

Discussants considered that greater research was necessary regarding options such as wind assist as a propulsive supplement. This would require modifying existing ships and might be useful with the short distances in the Caribbean to fill the gap especially where port infrastructure to store alternative fuels wasn't yet available.

A research team is currently producing renewable natural gas (biomethane) from waste using a biodigester system. In Dominica, a pre-feasibility project is exploring the conversion of municipal solid waste and woody waste from cruise ships into biofuels. Meanwhile, Trinidad and Tobago has launched a green hydrogen pilot project and established a low-carbon hydrogen production plant, positioning itself as a leader in the regional hydrogen space.

However, participants noted a lack of technology transfer from investigative trials in the United States into ethanol, renewable diesel, renewable gasoline, and renewable natural gas, to Caribbean universities and research entities in Guyana, Dominica, and Belize. This could help Caribbean countries produce varying volumes of clean fuels to meet both domestic and shipping demand. Participants stressed the importance of developing a zero or near-zero carbon energy mix, starting from pilot projects and gradually scaling up to commercial operations where feasible. Challenges included high costs, industry disruptions, and the complex handling requirements of alternative fuels.

It was noted that within the context of the IMO's Life Cycle Assessment (LCA) Guidelines being negotiated, Caribbean countries should attempt to keep the threshold for lifecycle assessments for fuels as flexible as possible so that it would fit the fuel flexibility available to the Caribbean. The Caribbean currently either has to import or produce such fuels, and discussants noted, once changes can be made to make production less carbon intensive (as it currently uses natural gas) and adapt its generation processes to create e-fuels, Trinidad and Tobago will have fuels on the market that will meet or satisfy the IMO's LCA requirements.

Stakeholders in St Kitts and Nevis were generally sceptical about the feasibility of modernizing ports to facilitate the bunkering of e-fuels such as e-methane and e-ammonia. The economies of scale and the high costs associated with upgrading and maintaining such facilities were significant barriers. Instead, it was suggested that a more feasible alternative would be to integrate solar power into the port infrastructure.

Stakeholders were encouraged to consider trade-offs and knock-on effects when assessing port upgrades and investments into cleaner fuels. Examples included reduced shipping costs as well as overall economic benefits such as facilitating cruise ships' access to shore power which could lead to extensions of their stay, with lower CII ratings. Conducting research and development and reviewing infrastructure to determine what investments could be made into biofuel alternatives would also be useful actions.

4.4 The Provision of Shore Power

Stakeholders considered the commercial viability of shore power. In Grenada, stakeholders from national power companies explored a novel approach that challenges conventional thinking: rather than ports supplying electricity to cruise ships, why not require cruise ships already mandated by the IMO to use low-emission fuels, to supply power back to the national grid while docked? Discussants found that while this proposal was conceptually innovative and potentially beneficial in offsetting local energy costs, it presents a range of complex

legal and regulatory challenges, particularly in relation to the negotiation of terms between private companies and governments.

Leveraging solar energy and shore power to supply clean electricity to vessels at berth was emphasized as a priority for both cruise and cargo shipping, as it offers a pathway to reduce emissions while ships are in port. An OECS Working Group is currently conducting feasibility studies for generating shore power including opportunities for increased renewable energy generation such as solar farms to offset demand.

Regulatory barriers to the delivery of shore power

During the Trinidad and Tobago consultations, participants raised the issue of legal and regulatory constraints limiting the generation and distribution of green energy for shore power at ports.

Under the current legal framework in Trinidad and Tobago, electricity transmission and distribution are controlled by the national utility, Trinidad and Tobago Electricity Commission (T&TEC). Similar to the Water and Sewerage Authority's (WASA) exclusive right to sell water, T&TEC is the only entity legally authorized to distribute electricity. Electricity provision is treated as a public utility function rather than a commercial service, which presents significant barriers to private sector participation.

At present, there is no enabling legal framework that permits private entities including ports to generate and sell electricity, including renewable energy, or to feed excess electricity back into the national grid, (i.e. no feed-in tariff mechanism or enabling legislation is in place). Draft legislation to allow for small independent power production and the integration of renewable energy has been prepared but remains pending in Parliament. To date, only limited provisions such as updates to electrical inspectorate policies to accommodate green installations have been approved. This legislative gap currently restricts ports from offering shore power to ships using renewable energy sources.

Other imperatives are the need for stronger institutional coordination between the energy and maritime sectors to enable a transition to green shore power and support investment in green infrastructure in the maritime sector. Legal reforms are also essential to allow for private or port-based renewable energy generation, and energy resale and/or feed-in to the grid.

From an operational standpoint, while shore power can technically be provided at present in Trinidad and Tobago, electricity is generated from natural gas, thereby offering limited environmental benefits and failing to meet zero or near-zero emission thresholds. Notably, feasibility studies are underway, such as the wind energy assessments at the Port of Galeota, to evaluate the potential for renewable energy generation for port operations, including shore power. If these prove commercially

viable, the provision of green shore power could become feasible within the next five years.

At present, there is no capacity to provide shore-based or green power for ships in St. Kitts and Nevis. However, preliminary discussions have begun with the national power generation and transmission company, with solar-powered upgrades identified as the most viable short-term solution. Stakeholders emphasized the importance of the green transition as an opportunity for innovation and investment, particularly through the integration of renewable energy sources at port facilities. These include the installation of wind turbines and exploration of geothermal energy potential, with possible financial support from the Caribbean Development Bank (CDB).

A notable development is the selection of St. Kitts and Nevis as one of the successful awardees under the IMO CARES Maritime Technology Global Challenge. The project, to be implemented at the Air and Sea Ports Authority Headquarters in Port Zante, Basseterre, seeks to decarbonize electricity use at port facilities through the installation of wind turbines and energy storage systems. Stakeholders highlighted the project's broader potential for scalability, including possible extensions to offshore power generation, district heating and cooling systems for onshore infrastructure, and future onboard energy supply for vessels.

Facilitating a just and equitable transition

While energy transition focuses on shifting from fossil fuels to renewable sources, enhancing efficiency, and reducing emissions to address climate change, participants felt that a just transition needs to provide support for vulnerable groups through retraining, job creation, and community support. Incentivizing the adoption of low-emission technologies by shipping companies and fuel suppliers was identified as a critical driver of the transition.

Stakeholders in St. Kitts and Nevis suggested a multi-pronged approach to facilitate the transition to zero or net-zero fuels. This would include incorporating efficient operational practices, supportive policies and technological advancements, because accomplishing an energy transition and just and equitable transition are aligned. Stakeholders emphasized that this alignment requires policymakers to exert targeted planning and policy measures. However, the transition would require substantial financial support from international donors and development partners, as the costs of transition are expected to be high and would likely require access to regional or international funding, or public private partnerships.

The Maritime Single Window initiative for electronic data exchange for ship clearance previously piloted in Antigua and Barbuda with the support of the IMO and the Government of Norway was seen as a valuable mechanism for streamlining

trade processes in St Kitts and Nevis and facilitating the shift towards more sustainable maritime operations in ports.

Participants also considered the use of incentive measures such as tax concessions for companies actively reducing their emissions. However, it was also recognized that Small Island Developing States (SIDS) and Least Developed Countries (LDCs) may face significant barriers to accessing and benefiting from these incentives without robust international support.

Overall, participants felt that immediate compliance with mid-term measures such as the global fuel standard or a universal GHG levy could lead to significant disruptions in trade and increased costs of living if not properly phased in. As such, the implementation of the midterm measures should be phased to allow for building institutional capacity, updating of legislation and regulations in line with MARPOL Annex VI amendments and retrofitting port and shipping infrastructure.

Transport Security and Regional Cooperation to incentivise Governments

Participants questioned the viability of Government investment in Caribbean maritime infrastructure due to limited economies of scale, where large vessels transiting through the region might not find it commercially viable to call at every port, and many vessels offload imports and leave empty due to low export volumes. They queried what could be done to incentivise governments regarding the need for such investment.

It was agreed that this dynamic reinforces the importance of transport security, ensuring that no Caribbean State is left behind or sidelined, and that vessels are not discouraged from calling at regional ports.

This brings the need for regional cooperation into sharp focus. With short distances between islands, the view was expressed that it is neither efficient nor feasible to duplicate infrastructure and capabilities across every Caribbean State. Strategic coordination is necessary for inter-island trade as well as large international vessel traffic by designating and investing in key hubs across the region.

It was noted that while this approach makes practical sense, it is not without its challenges. Intra-regional political rivalries, competition among ports, and fragmented national priorities can hinder joint planning. It was recognised that the global push for decarbonization could serve as a turning point, or a form of strategic “arm-twisting” for Caribbean nations to consider their neighbours’ needs alongside their own.

As noted in the first Stakeholder Report, Jamaica's maritime cluster has achieved success in maritime logistics, cargo transshipment, bunkering and cruise shipping terminals. Rather than duplicating capabilities, the region could build on these existing strengths and extend them through partnerships and shared initiatives.

This principle of cooperation aligns with the Paris Agreement, which emphasizes that climate goals must be met through collaboration. Accordingly, the Caribbean's response to the GHG Strategy's measures must reflect this spirit through a regional strategy built on partnership, coordination, and shared responsibility. (Nannan, 2025).

In Trinidad and Tobago, sustained collaboration is underway between key national institutions to support the green transition in the maritime sector. This includes the Ministry of Energy and Energy Industries, responsible for power generation policy; the Ministry of Public Utilities, which oversees electricity distribution and sales; and the Ministry of Planning and Development, which plays a central role in national climate planning and partnerships. These agencies are working closely with international development partners and the National Energy Corporation, the implementing agency for renewable energy initiatives, including current wind energy studies.

Complementing these efforts is a new pilot project led by the Caribbean Maritime University (CMU) in Jamaica and the University of Trinidad and Tobago (UTT) to test wind energy assist technologies on vessels. The project will collect data on vessel performance, fuel savings, and emissions reductions. If the pilot yields reliable results, it could significantly bolster the region's case for accessing international funding under the IMO GHG Strategy, by demonstrating practical, in-sector decarbonization solutions and supporting incentives for fleet upgrades.

4.5 Institutional Strengths

At the stakeholder discussions in Trinidad and Tobago, key state energy agencies were present, including the National Energy Corporation of Trinidad and Tobago Limited, the Trinidad & Tobago National Petroleum Marketing Company Limited (NP), and Paria Fuel Trading Company Limited. These entities are signatories to a Memorandum of Understanding (MOU) coordinated by the Ministry of Energy and Energy Industries, which outlines a shared commitment to explore the potential supply of low-carbon marine fuels, such as methanol, for vessels operating in the Caribbean.

A feasibility study to assess the viability of this supply framework is currently underway and is expected to be completed by April 2025. This form of inter-agency

collaboration reflects a growing alignment around national energy and climate goals and supports policy streamlining and implementation.

Representatives from the Energy Efficiency and Alternate Energy Committee, a subcommittee of the Energy Chamber of Trinidad & Tobago also participated in the discussions (The Energy Chamber of Trinidad and Tobago, n.d.). The Alternate Fuel Committee can be an avenue for promoting awareness of the IMO's decarbonisation efforts and leveraging local research and technical expertise in advancing green technologies in Trinidad and Tobago. Another platform with potential for raising awareness of the IMO's decarbonisation agenda is the Renewable Energy Committee. The Committee which was launched on February 13, 2009, reviews the energy balance of Trinidad and Tobago and conducts state assessments of renewable applications and research activities into photovoltaic solar power, solar thermal energy, wind energy, wave energy, and various biofuels such as biomass, biogas, biodiesel and bioethanol.

The Alternate Fuel Committee and the Decarbonization Taskforce in Trinidad and Tobago are currently chaired by Dr. Dale Ramlakhan, expert presenter for the CSL and Kenesjay Green Limited. The Decarbonization Taskforce focuses on key areas including carbon capture and storage, energy efficiency across both consumer and supply sides, renewable energy, and green hydrogen development (The Energy Chamber of Trinidad and Tobago, n.d.). The Taskforce worked closely with the Ministry of Energy and the Ministry of Public Utilities to ensure that the first large-scale solar project would become a reality.

During the discussions held in Grenada, stakeholders referenced the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) as a potential model from which the maritime sector could draw valuable lessons. Given the island's strong focus on adaptation in the face of climate vulnerabilities, participants recognized the importance of adopting a multi-pronged approach. Learning from the aviation sector's early implementation of carbon reduction mechanisms was viewed as a means of informing the development of complementary measures for the shipping industry. This comparative approach could support national efforts toward carbon neutrality while aligning with broader international commitments.

4.6 Institutional Challenges

Participants highlighted institutional challenges that hinder cohesive efforts to reduce GHG emissions in the maritime sector. One proposal discussed was the establishment of a National Ports Council for Trinidad and Tobago, which could help set unified policies on emissions reduction. With over ten publicly and privately owned ports, the management of Trinidad and Tobago's port infrastructure is

currently fragmented, creating inefficiencies and gaps in coordinated policy implementation.

The issue of human resource capacity also emerged as a critical constraint. In several Caribbean countries, limited staffing within maritime administrations means that officials often hold multiple overlapping roles. For example, a single individual may simultaneously serve as a marine pilot with the Port Authority, a Senior Ship Inspector with the Maritime Administration, a member of the Climate Change Committee, the National Ocean and Coastal Zone Management Committee, and as a country representative in the IMO GHG negotiations. While this multi-role setup can facilitate cross-agency information sharing, the time and workload pressures involved reduce the ability to fully dedicate attention and expertise to each area.

Institutional remits for maritime affairs in the Caribbean are often diffused across multiple agencies, contributing to fragmented governance and reduced policy coherence. In some countries, maritime administration falls under Port Authorities, while Ministries of Blue Economy and Maritime Affairs tend to focus more on broader ocean governance and blue economy policy. In other instances, maritime responsibilities are embedded within Ministries of Infrastructure, Works and Transport, Planning, or Tourism, where maritime issues may receive less prioritization due to competing mandates and limited resources.

A positive development in the region is the establishment of dedicated ministries, such as the Ministry of Climate Change Resilience, Environment and Renewable Energy, which signals growing recognition of the need for focused attention on environmental and sustainability issues. However, institutional fragmentation remains a key concern.

For example, in Trinidad and Tobago, the Ministry of Energy and Energy Industries is tasked with both policy development and the issuance of bunkering licenses, as well as leading on GHG emissions data collection. However, the data collected is not shipping-specific, illustrating the limitations of current frameworks. It also demonstrates the need for greater inter-agency collaboration and the development of sector-specific data collection mechanisms.

Addressing these institutional challenges may require aligning or clustering responsibilities more strategically across agencies. Such realignment could improve coordination, reduce duplication, and ensure that maritime decarbonization is adequately prioritized within national development and environmental agendas.

4.7 Operational Challenges: Port inefficiencies and the CII

Participants discussed how the Carbon Intensity Indicator (CII), a short-term measure under the GHG Strategy, could influence the medium-term measures such as the universal levy and the global fuel standard. It was widely acknowledged that

the implementation of a levy will have economic implications for all Caribbean States.

A key concern raised during the stakeholder discussions was the unavoidable disadvantage faced under the current Carbon Intensity Indicator (CII) framework by vessels operating in the Caribbean. Due to the region's short inter-island distances, and prioritisation of cruise vessels, cargo vessels may spend a disproportionate amount of time waiting to berth, which can negatively affect their CII ratings, as such idle time is still counted against transport work (Section 4.6, CSL Stakeholder Engagement Study, Focus Group Discussions Report).

Further compounding the issue, vessels, particularly geared bulk carriers operating in smaller Caribbean ports that lack shore-based cargo handling infrastructure often spend additional time self-loading or unloading cargo. Under the current CII metrics, this may be interpreted as a reflection of port inefficiency, unfairly penalizing both ships and ports that operate within such constraints.

Participants discussed the response to these challenges by five Caribbean States who jointly submitted a Position Paper to MEPC, outlining the region-specific implications of the CII. Building on this initial engagement, the Caribbean is preparing a second submission to the ISWG-GHG and MEPC. This follow-up paper will highlight five key challenges that must be addressed by the IMO before and after the January 1, 2026 review and implementation timeline for CII-related measures.

This submission will be grounded in a Port Efficiency Study, designed to provide empirical evidence of the operational realities in Caribbean ports. The goal is to secure a regional correction factor for CII calculations to ensure that the Caribbean's structural and infrastructural limitations are fairly accounted for within the IMO framework. The Port Efficiency Study will identify the ports within the Caribbean that require support to modernize and demonstrate how vessel times can be reduced by a change in metrics or the addition of correction factors. The correction factors would be reviewed to determine their applicability and if they could be implemented in the Caribbean region.

To access funding for port modernization, Caribbean States must actively negotiate to ensure that, as Small Island Developing States (SIDS), their ports are recognized as being 'in-sector' for the purposes of the IMO GHG Strategy.

While the definition of in-sector versus out-of-sector use of funds under the universal GHG levy is yet to be finalized, this distinction will be crucial for ensuring equitable access to finance. If the use of revenues is restricted to in-sector activities, it is essential that Small Island Developing States (SIDS) ports are explicitly included within that definition.

This is particularly vital for Caribbean ports, which require significant infrastructure upgrades to meet the operational demands of decarbonized shipping and to remain accessible to compliant vessels. Without recognition as in-sector entities, these ports risk exclusion from critical financial support mechanisms, and risk undermining their transition capacity and the broader just and equitable transition goals of the GHG Strategy.

4.8 Policy and Legal Frameworks

The existence of adequate legal and policy frameworks was considered essential for stakeholders in the discussions. Trinidad and Tobago has ratified MARPOL and its Annexes, including Annex VI which it acceded to in 2012. Domestic implementing legislation in the form of the 2020 Shipping Bill is awaiting approval and passage by the government. Trinidad and Tobago also has a draft National Maritime policy which is pending approval by the Government and a 2023 National Adaptation Plan.

St Kitts and Nevis has ratified MARPOL and its Annexes. Domestic legislation to implement Annex VI is incorporated in the draft Maritime Pollution Bill which has been forwarded to the Attorney General Chambers for technical review to facilitate enactment. The 2002 Merchant Shipping Act 2002 remains in force in the interim. St. Kitts and Nevis does not have a National Maritime Transport Policy (NMTP) however it has developed a National Ocean Policy and Strategic Plan and a Coastal Master and Marine Spatial Plan under the OECS Eastern Caribbean Regional Ocean Policy (ECROP), which establishes a framework for coordinating management across sectors and resources, for integrated marine environmental management.

Grenada has ratified MARPOL, however it has not done so in relation to Annex VI or the other annexes. It has developed a National Ocean Policy and Strategic Plan and a Coastal Master and Marine Spatial Plan under the OECS ECROP framework.

National Maritime Transportation Policies can promote cross-sectoral participation in ensuring efficient, safe and environmentally sound management of maritime sectors. It is possible that the advent of the mid-term measures could be a catalyst for passing domestic implementing legislation for MARPOL Annex VI and implementing National Maritime Transportation Policies.

Participants noted gaps in relation to technology and policy. Trinidad and Tobago has a Green Hydrogen Road Map, however it is not clear if other States in the Caribbean region have developed policies in relation to alternative fuels, or if there is a regional strategy (National Energy Corporation of Trinidad and Tobago, 2022). Participants considered that it was necessary to evaluate how such policies would intersect with national and regional agricultural policies, given land use considerations.

Becoming fully MARPOL compliant is important for stakeholders. A gap was identified among the existing national policies, the National Climate Change Policy (2017-2021), the National Climate Change Adaptation Strategy (2018) (St Kitts and Nevis), and the 2023 IMO GHG Strategy. It was recommended that a comprehensive National Maritime Framework be developed to regulate GHG emissions in line with the provisions of MARPOL Annex VI and other relevant conventions. Stakeholders also suggested that technical and financial assistance from international organizations like the UNFCCC, World Bank, and the IMO be sought to support the development of effective policy.

Four greenhouse gas inventories had been completed for maritime ports in Trinidad and Tobago including for terminals managed by National Energy Corporation. These provided a template for conducting future greenhouse gas inventories and would now have to be incorporated into National inventories and the National Adaptation Action Plan.

The 2023 National Adaptation Action Plan focuses on mitigation measures for the transportation, heavy industry and power generation sectors, with indicators for mitigation measures to track progress towards commitments under the Paris Agreement. Trinidad and Tobago has committed to reducing its emissions in the public transportation sector by 30% by 2030. It was felt that the inventories could be an avenue through which maritime could contribute to the GHG emissions reduction and help meet the 30% target.

St Kitts and Nevis stakeholders highlighted current and planned GHG reduction projects such as the Maritime Single Window Initiative which would facilitate just in time arrivals, and the Port Zante wind turbine project.

Other proposed priorities for potential revenue generated from GHG emission reduction measures include a Geothermal energy project and coastal restoration in Basseterre Harbour. Stakeholders pointed out that these projects could be integrated with climate change adaptation and mitigation strategies, supporting a more sustainable and resilient economy for St. Kitts and Nevis.

As noted in the previous Stakeholder Engagement Report, ensuring alignment between national policy instruments, legislative frameworks, and the GHG Strategy is critical (Section 4.10, CSL Stakeholder Engagement Study, Focus Group Discussions Report). Policy coherence is needed across cross-cutting national strategies, including port sector decarbonization, National Maritime Transportation Strategies (NMTPs), Nationally Determined Contributions (NDCs), and National Adaptation Plans (NAPs).

There was a difference of opinion regarding the level of incorporation of maritime issues in environmental planning. In Trinidad and Tobago, it was felt that initially,

maritime sector considerations were included in NDCs and updated however; over time, there has been greater focus on power generation and land transportation. A view was expressed to the contrary that there is now closer collaboration on maritime issues with the Department of Maritime Administration. Grenada intends to develop a GHG reduction strategy to be included in their NDC and NAP.

Alignment of maritime and environmental sector policy and plans is considered good practice, particularly with regard to the operation of funding mechanisms and the implementation of mitigation and adaptation measures.

4.9 Emerging Challenges

China Shipping Tariffs, U.S. Port Fees & the IMO GHG Levy

The global maritime sector is facing a complex and shifting policy landscape. Recent developments, namely the proposed imposition by the United States of increased port fees on Chinese-built ships poses additional challenges for the Caribbean region, particularly in light of the proposed levy on GHG emissions being considered under the IMO Strategy.

The United States is reportedly considering new port fees specifically targeting vessels built in China, as part of broader efforts to curb China's dominance in global shipbuilding and address perceived unfair trade practices. As Position Paper 17/2/18 notes, China is one of the Region's main trading partners, along with the United States, the European Union and Canada (ISWG-GHG 17/2/18, Antigua and Barbuda et al., 2024). Participants noted that more than a third of the tonnage from ships currently trading internationally are Chinese-built and that the Caribbean region is served by these ships.

Participants considered potential impacts on the Caribbean as:

- Reduced Chinese Shipping Activity: If the United States follows through with the port fees, Chinese shipping companies may reroute or reduce services to U.S.-linked trade routes, some of which include Caribbean transshipment hubs.
- Higher Shipping Costs: Increased operational costs for Chinese-built or Chinese-flagged vessels could be passed down the chain by charterers, leading to higher freight rates for Caribbean importers.
- Disruption to Caribbean Port Traffic: Many Caribbean ports, including those in St Kitts and Nevis, Jamaica and Trinidad and Tobago, are serviced by Chinese-built container ships, bulk carriers, or logistics providers. Additional fees or trade tensions may result in reduced port calls, affecting revenue and local supply chains.
- Delayed Investments: Chinese firms are involved in infrastructure development across the Caribbean, including port upgrades and logistics zones. Rising trade tensions may result in delayed or cancelled investment.

Participants also queried the positions adopted by the United States regarding GHG emissions reduction under international environmental agreements such as the Paris Agreement, and the latter's connection with the UNFCCC and the GHG Strategy. It

was noted that the United States has recently signalled its intention to withdraw from the Paris Agreement for the 2nd time and that The Paris Agreement under the UNFCCC and the IMO's GHG Strategy are separate processes (The White House, 2025). The United States was not actively engaged in the most recent IMO Intersessional Working Group negotiations, highlighting its uneven participation in international climate efforts.

Discussants noted that the shipping and aviation sectors were excluded from the Paris Agreement due to their complexity regarding abatement and global nature in relation to emissions, hence the IMO is the main forum for regulating shipping emissions.

Arguments that only shore-based emissions should be covered by the Paris Agreement, and that the IMO should focus solely on emissions from ships-at-sea as it is not the forum to address climate change issues which are under the remit of the UNFCCC framework, were considered too narrow. Participants appreciated that the entire lifecycle of fuel use contributes to GHG emissions and that at the IMO, major groupings such as the European Union together with many developing countries are pushing ahead with GHG reductions in shipping under the GHG Strategy.

The St Kitts and Nevis Chamber of Commerce is considering the cumulative impact of these developments, which are also likely to attract the attention of Port Authorities, Chambers of Commerce and other key stakeholders across the region. No formal discussions on the IMO measures have taken place at the St Kitts and Nevis Chamber of Commerce level and many companies remain unaware of the impending changes despite their far-reaching implications.

Participants felt that the current volatile shipping environment warrants careful consideration of the impact of further levies on the shipping sector. The introduction of a universal GHG levy on emissions under the GHG Strategy, while environmentally necessary, needs to be implemented with equity and resilience in mind.

Knock on effects on Transport Costs and Food Security

The consultations highlighted broader operational and economic implications for implementation of the levy, with consumers and ports identified as the most vulnerable to these cost increases. A primary concern was the potential rise in the cost of goods due to increased transport costs which could contribute to inflation and food insecurity, particularly in import-dependent countries such as St Kitts and Nevis.

The discussions clarified that the IMO's GHG reduction measures will cause an increase in shipping costs, leading to higher prices for imported food, which elevates food prices, reduces affordability, and potentially undermines food security in the Caribbean (Forgenie 2025). Stakeholders in St Kitts and Nevis proposed the

following strategic actions to reduce dependence on imported food and strengthen local food systems:

- Enhanced Domestic Agricultural Policy and Adoption of Advanced Farming Technologies
- Implementation of Electronic Agriculture (E-Agri): Digital tools for crop management, market access, and climate monitoring
- Encouragement of Crop Rotation to sustain soil health and diversify local production
- Promotion of climate-smart agriculture (e.g., hydroponics, vertical farming, smart irrigation) to improve yield and resource efficiency
- Incentivization of Agri-Food Innovation with incentives for R&D in agriculture, food processing, and marketing
- Encouragement of local entrepreneurship and innovation to reduce import dependence
- Expansion of Domestic Fisheries Capacity
- Investment in large-scale and deep-sea fishing to boost domestic protein supply
- Support for the acquisition of modern fishing vessels capable of longer expeditions and higher yields.

4.10 The perils of inaction

Participants discussed whether inaction or remaining silent during the negotiations on midterm measures was a viable strategy. This prompted several key questions:

- Would the proposed measures apply only to countries actively involved in the negotiations and implementation mechanisms?
- Caribbean countries are not homogenous, and despite being similar in some ways to Pacific SIDS, some Caribbean countries are classified as high-income countries. Would this affect how revenues from a global levy are disbursed within the region?
- Do the current disbursement proposals prioritise specific uses for levy-generated funds, or would they operate on a 'funnel' basis, with funds for a just and equitable transition filtering down only after other obligations are met?

The view was expressed that powerful actors such as European Union states and China may significantly influence the final design and implementation of the GHG Strategy in ways that align with their interests, potentially marginalising the concerns of more vulnerable states.

Participants stressed that the Caribbean cannot afford to be passive. Active engagement is critical to safeguard the region's maritime interests, shape mechanisms such as a global fund, and advocate for a high levy structure that includes a "reward and return" system. This would support Caribbean States in financing their transition and offsetting costs. The global shipping industry is advancing with new greenhouse gas (GHG) standards and decarbonization measures, regardless of whether all countries actively participate. If the Caribbean remains disengaged, it risks exclusion from needed shipping routes, particularly if its ports lack the infrastructure and compliant fuels required by decarbonizing fleets. This would negatively impact trade, reduce access to essential goods, and threaten regional food and energy security.

Participants learned that discussions revenue disbursement on a universal levy are ongoing, and no consensus has been reached. There is general agreement that part of the funds should support infrastructure development and capacity building in developing countries, especially SIDS and Least Developed Countries (LDCs). Some proposals include allocating resources to address "disproportionate negative impacts" or DNI, although this term remains undefined. Revenue could, in future, be allocated to repair ships or port facilities damaged by hurricanes or other climate-related disasters. (Berry, 2025).

Currently, the clearest area identified for financial reward is the uptake of zero and near-zero emission fuels and technologies. These incentives are primarily geared towards accelerating the energy transition, rather than ensuring a just and equitable transition. As a result, initial disbursements from a levy would likely be directed toward rewarding green technology adoption within the maritime sector.

This underscores the importance of a high levy, not only to incentivize low-emission shipping but also to ensure that, once those rewards are allocated, sufficient funds remain to support broader goals such as national capacity building, research and development, and addressing out-of-sector needs like food security.

Stakeholders noted that current proposals often list priority areas sequentially, for example, building sectoral capacity through incentivising the fleet, research and development, with out-of-sector support, such as food security, last. While this ordering may not reflect explicit prioritization, it signals the potential for reduced funding availability for non-maritime needs unless the levy is substantial. Additionally, if proposals for a subsidy or reward for using zero or near-zero carbon (ZNZ) fuels

are passed, there would be less funds remaining for climate projects in developing countries.

This reality reinforces the need for Caribbean countries to have a seat at the negotiating table, to shape how revenues are allocated, advocate for fair treatment, and ensure the region’s unique vulnerabilities are addressed in a just and equitable transition.

As clarified in earlier discussion groups, the IMO operates under a 'tacit acceptance procedure' for amending its instruments. This means that once an amendment such as those to MARPOL Annex VI under the GHG Strategy is adopted, it is considered accepted after a set time period unless a specified number of countries formally object. The relevant IMO Committee determines the time frame for acceptance during the resolution’s adoption. In effect, this process means that amendments become binding unless actively rejected. Consequently, Caribbean countries must remain engaged in shaping these amendments to ensure that their specific interests and concerns are addressed before the final texts are adopted.

5. Conclusion and Recommendations

Stakeholder engagement discussions articulated key risks and potential opportunities for the Caribbean. Participants agreed that the cumulative cost burden occasioned by the threat of potential tariffs, increased port fees and a GHG levy could make Caribbean maritime transportation prohibitively expensive for Caribbean SIDs.

As CSL's food security presentation noted, scenarios with no levy, or a low levy (especially if revenues are distributed to all developing countries), would not compensate for estimated food security welfare impacts in 2030 and 2040. To address this, 'out of sector' disbursement mechanisms such as cash transfer programs or food vouchers, similar to those implemented during the COVID-19 pandemic, would help protect vulnerable households from escalating prices.

Emerging challenges indicate that port competitiveness and regional trade stability would be impacted if Chinese ships, or others impacted by impending United States policies reduce regional activity. Smaller Caribbean ports could see a drop in calls, with negative implications for revenue, employment and trade flow stability. Ports that fail to modernize or provide access by compliant vessels to alternative fuels, risked being similarly marginalized.

Investment in port infrastructure modernization and green technology should be a strategic priority for the region. Access to renewable shore power should be prioritized as critical infrastructure for decarbonizing shipping and achieving national climate goals. Legal reforms are essential to allow for joint ventures where needed to facilitate private or port-based renewable energy generation, and to enable energy resale or feed-in to the grid where possible.

Progress in maritime cluster development such as Jamaica's advancements in cargo, bunkering, and cruise operations presents opportunities for regional knowledge sharing and scaling.

There is a clear need for stronger coordination between the energy and maritime sectors to enable the transition to greener maritime sectors. A CARICOM-led dialogue to address institutional fragmentation between climate and maritime sectors, incorporating insights from subregional efforts like the OECS Shore Power Committee, could bridge the gap between technology and policy implementation.

Environmental stakeholders must also be actively included in maritime decarbonization planning and implementation. This will support national development goals and help governments integrate maritime GHG reduction plans into Green Climate Fund (GCF) proposals and Nationally Determined Contributions (NDCs) under the Paris Agreement.

The increasing number of GHG Ambassadors across the region is a positive trend that facilitates cross-sectoral dialogue and strengthens the Caribbean's voice in international negotiations. These initiatives should be formalized and supported to enhance capacity and information exchange.

Maritime administrations should develop national maritime transport policies aligned with the IMO GHG Strategy and promote legislative action to ratify and implement MARPOL Annex VI, which is essential for compliance with global standards. The creation of an enabling regulatory environment to support decarbonization will assist with attracting private investment. Continued representation of maritime administrations in national delegations will ensure institutional memory and informed negotiations on the GHG Strategy.

Stakeholders emphasized the importance of tailoring transition strategies to the specific needs of each state. Implementing the GHG Strategy will require investments in training and capacity building for local professionals across the maritime value chain. This will support the development of enabling frameworks for efficient port and shipping operations and strengthen institutional, legal, and technical capacity to implement reforms necessary under the GHG Strategy.

Appendix 1 Focus Group Discussion Questions

Question One – Perceptions about the Universal Levy

1. Do you think imposing a universal levy on global shipping emissions can accelerate the transition to greener maritime practices in (Country X)? Please explain.

Question Two – Operational and Economic Impacts

2. What do you think will be the biggest challenges for (Country X) in implementing a universal levy on ship emissions?

    2.1 Where do you see the biggest impacts happening?

    2.2 Do you foresee any opportunities in this regard? If so, what support or advocacy will (Country X) find most effective? Please explain.

Question Three - Global Fuel Standard (Operational and Economic Impacts)

3. Do you think (Country X) stands to benefit from the adoption of the proposed technical measure (a global goal – based fuel standard) by 2030 or 2040? Please explain.

    3.1 Do you see the combination of the global fuel standard with a levy as feasible options for SIDS such as (Country X)? Please explain.

Question Four - Alternative Fuels

4. What transitions and measures are needed to facilitate zero or net-zero GHG maritime fuel utilisation in (Country X)'s maritime and related sectors?

    4.1 Do you consider that (Country X) has the potential to achieve this transition? If so, what investments in infrastructure would be required? If financial support is required for this, how can this be accomplished?

    4.2 Who are the early movers in (Country X)? How best can they be rewarded?

    4.3 What opportunities and challenges exist regarding refining and distribution of alternative fuels?

Question Five – Ports modernization and Bunkering

5. Is ports modernization to facilitate bunkering of e-fuels (methane, e-ammonia, e-hydrogen, biomethane, blue ammonia, blue hydrogen) a feasible option for (Country X)? Please explain.

    5.1 What capacity exists for providing shore-based power for ships?

    5.2 Are there national policies or strategies to facilitate these initiatives? Please explain.

Question Six - Just and Equitable Transition (JET) and Revenue Distribution

6. The GHG Strategy commits to promoting a just and equitable transition. What do you think this could look like for (Country X)?

    6.1 Do you think funds generated by adoption of a global fuel standard together with a levy should be utilised *within* the international maritime transportation sector or *out* of the sector for achieving wider climate change and ocean health goals in SIDS?

    6.2 Is there any other means of accomplishing this transition? Please explain.

Question Seven – the Energy transition in shipping and JET

7. Do you believe that an energy transition *and* a just and equitable transition are compatible principles? Please explain.

    7.1 What can be done to effectively incentivize shipping companies and fuel suppliers to adopt low-emission technologies? Will SIDS and LDCs benefit?

Question Eight

8. What specific projects or initiatives do you think should be prioritized with revenue from the measures to facilitate a just and equitable transition in (Country X)?

    8.1 What criteria, if any should be included for such projects or initiatives?

    8.2 Are there initiatives between the maritime and environment sectors in (Country X) for utilising revenue from the measures and supporting climate change adaptation and mitigation?

Question Nine - GHG Policy Alignment

9. National climate change and emissions reduction policies such as (Country Policy X and Y) are interrelated. Do you consider that these policies are in alignment with the IMO GHG Strategy? If not, how best can this be achieved?

Question Ten – Transport costs and food security

10. SIDS and LDCs typically face higher transport costs due to their geographic location, port inefficiencies, and reliance on commodities vulnerable to transport cost increases. This threatens food security and is likely to persist through the energy transition, regardless of which technical or economic measure is adopted. What steps do you think can be taken to address this?

Appendix 2 Stakeholder Agencies

Trinidad and Tobago

Atlantic LNG Company of Trinidad and Tobago
Environmental Management Authority
Government Appointed Surveyor
Institute of Marine Affairs
Maritime Technology Corporation Centre UTT
Ministry of Agriculture, Land and Fisheries, Fisheries Division
Ministry of Energy and Energy Industries
Ministry of Planning and Development
National Energy Corporation
National Petroleum Marketing Company
Paria Fuel Trading Company Limited
Point Lisas Industrial Port Development Corporation Limited
Shipping Association of Trinidad and Tobago
Ventrin Petroleum Limited

Focal Point: Trinidad and Tobago Maritime Services Division

Grenada

Attorney General's Chambers
Grenada Chamber of Industry and Commerce
Grenada Coast Guard
Grenada Electricity Services Ltd
Grenada Ports Authority
Ministry of Blue Economy and Maritime Affairs
Ministry of Climate Change Resilience, Environment and Renewable Energy
Tropical Shipping
Tyrell Bay Express

Focal Point: Grenada Ports Authority

St Kitts and Nevis

Carib Brewery (St. Kitts & Nevis)
Customs and Excise Department (Nevis)
Customs and Excise Department (St Kitts)
Delisle Walwyn and Co Ltd
Department of Economic Development
Department of Environment
Department of Industry and Commerce
Department of Maritime Affairs
Health Department

Hobson Enterprises Ltd.
Ministry of International Trade
Nevis Air & Seaport Authority (NASPA)
St Kitts and Nevis Defence Force Coast Guard
St. Christopher Air & Seaport Authority (SCASPA)
Tropical Shipping

Focal Point: Department of Maritime Administration

Glossary

Biodiesel	a biodegradable fuel manufactured from animal fats, vegetable oils or recycled grease
Biofuel	any fuel derived from biomass: plant or algae material or animal waste.
LCA Guidelines	A Life Cycle Assessment for evaluating GHG emissions intensity
The Paris Agreement	a legally binding international treaty on climate change

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