

GMN FASE II

2ND NATIONAL WORKSHOP

Advancing Maritime Sustainability in Ecuador:

Energy Transition, Technology and Innovation for an Efficient and Future-Ready Maritime Sector

REPORT

Second National Workshop 2026 in Ecuador – Executive Summary

The Maritime Technology Cooperation Centre for Latin America (**MTCC-LA**), within the framework of the Global MTCC Network (**GMN**) Phase II Project, implemented by the International Maritime Organization (**IMO**) and funded by the European Union (**EU**) through the **Global Gateway** initiative, together with the International Maritime University of Panama (**UMIP**), as the Centre's host institution, and the National Directorate of Aquatic Spaces (**DIRNEA**) of the Ecuadorian Navy, conducted the Second National Workshop of 2026 under the GMN Phase II Project, entitled “**Advancing Maritime Sustainability in Ecuador: Energy Transition, Technology and Innovation for an Efficient and Future-Ready Maritime Sector,**” on 9-10 July 2026 in Guayaquil, Ecuador.

The workshop brought together a broad cross-sectoral group of **45 participants**, with a nearly balanced gender distribution (**51% men and 49% women**). Participants included representatives from maritime and port administrations, government entities, shipping companies, academia, the logistics sector, shipbuilding, shipowners, researchers, and other key stakeholders from the maritime and port sectors.

MTCC-LA provided technical and organizational support for the planning and delivery of the workshop, with local support from the National Directorate of Aquatic Spaces (**DIRNEA**) of the **Ecuadorian Navy**, in line with the objectives of the **GMN Phase II Project**.

Workshop Objectives

The workshop was designed to:

- ✓ Promote the exchange of knowledge and experiences on the decarbonization of Ecuador's maritime and port sectors.
- ✓ Facilitate dialogue on energy efficiency, alternative marine fuels, technological innovation, and digital solutions to reduce greenhouse gas (GHG) emissions.
- ✓ Strengthen the institutional and technical capacities of key stakeholders in Ecuador's maritime and port sectors.
- ✓ Foster cooperation among government, industry, academia, and international organizations to accelerate the maritime energy transition.
- ✓ Promote gender equality and inclusive participation in maritime decarbonization initiatives.

Topics and Key Areas Addressed

During the workshop, technical presentations, panel discussions, and interactive sessions were conducted focusing on the following strategic areas:

- National maritime decarbonization strategies, challenges, and opportunities
- Technical energy-efficiency measures
- Sustainable alternative marine fuels
- Regional collaborative alliance in Latin America
- Technological solutions for maritime decarbonization
- The role of the banking sector in supporting maritime decarbonization
- Government – Industry – Academia cooperation
- Digitalization and emissions monitoring tools
- Promoting gender equality in maritime energy efficiency initiatives

Key Outcomes and Achievements of the National Workshop

The table below summarizes the key outcomes and achievements of the Second National Workshop 2026 of the **GMN II Project** in **Ecuador**, highlighting the principal results achieved across the **GMN II Project** priority areas and their contribution to advancing maritime decarbonization in Ecuador.



MTCC-LA – Second National Workshop 2026 Ecuador Achievement Table

GMN Phase II Results Area	Activity / Output	2026 Scope	Key Outcomes and Achievements
Capacity Building	Second National Workshop 2026	45 participants from government authorities, industry, academia, and international organizations	Technical capacities and knowledge on maritime sector decarbonization were strengthened, in line with IMO 2023 GHG Strategy and Ecuador's national priorities.
Inter-Institutional Cooperation	Participation of DIRNEA, CAMAE, Nautical Institute del Ecuador, academia, and international organizations	Representation of more than 90% of the invited institutions	Inter-institutional cooperation was strengthened to advance the energy transition and decarbonization of Ecuador's maritime sector.
Gender Equality	Roundtable on gender equality towards maritime decarbonization	49% female participation at registration; 44% in the evaluation	Women's leadership and the role of Red MAMLa and WISTA as regional networks were promoted to strengthen gender equality in the maritime sector.
Alternative Fuels	Technical session on methanol, ammonia, LNG, and biofuels	Participation of international experts	Understanding of the opportunities and technical, regulatory, and safety challenges of alternative fuels in Ecuador was strengthened.
Technological Innovation	Practical workshop on energy efficiency (CII) and Life Cycle Assessment (LCA)	95% rated the session as practically useful	Participants applied CII and LCA calculation tools to a real-world case, identifying corrective measures and opportunities for operational improvement.
Strategic Partnerships (RIALA)	Presentation of the Regional Industry Alliance for Latin America (RIALA)	2 expressions of interest received in Ecuador	Regional public-private cooperation was strengthened, and interest among Ecuadorian stakeholders in joining RIALA was expanded.
Sustainable Finance	Panel with financial institutions and climate finance experts	Participation of public- and private-sector stakeholders	Green and blue financing instruments were highlighted, together with the need to structure bankable projects to support maritime decarbonization.
Ports and Green Corridors	Session on green shipping corridors, data, and maritime education	Assessment of Ecuador's potential as a regional hub	Opportunities were identified in infrastructure, digitalization, and maritime education and training to support port decarbonization.

National Participation and Stakeholder Engagement

The workshop brought together **45** participants, representing maritime and port administrations, government entities, the shipping industry, academia, and other stakeholders from the maritime and port sectors. The sectoral distribution was as follows:

Sector	No. of Participants
Maritime Administrations	8
Government Entities	7
Port Administrations	6
Shipping Companies	4
Academia / Universities	4
Other Sectors	16
Total	45

The workshop recorded a gender distribution of 51% men and 49% women, reflecting a balanced representation of women and men and contributing to the inclusion and participation objectives promoted under the GMN Phase II Project and the Gender Action Plan.

The technical discussions held during the workshop helped identify national priorities for advancing Ecuador's maritime energy transition, while promoting the exchange of experiences among government authorities, industry, academia, and international organizations.

National Challenges

Participants identified several challenges that need to be addressed to accelerate Ecuador's maritime energy transition:

- ❖ **Strengthen regulatory and policy frameworks** related to alternative fuels and low-emission technologies.
- ❖ **Address infrastructure limitations** for the production, storage, and supply of sustainable marine fuels.
- ❖ **Expand access** to financing for energy efficiency and maritime decarbonization projects.
- ❖ **Strengthen technical capacities** for the adoption of emerging technologies and digital tools.
- ❖ **Develop national coordination mechanisms** to engage all relevant stakeholders across the maritime and port sectors.
- ❖ **Continue promoting gender equality** and inclusive participation in maritime-sector decision-making

Summary of Results and Actions Table

Session / Topic	Results and Conclusions	Next Steps	Responsible Parties and Partners	Timeline
1. Overview of Ecuador's Maritime and Port Sector	Institutional, operational, and regulatory status of the sector: governance, technological modernization, energy efficiency, and coordination among authorities, industry, ports, and academia need to be strengthened.	Strengthen inter-institutional coordination, technical capacities, and monitoring of the maritime energy transition.	DIRNEA, CAMAE, MTCC-LA, academia, and maritime sector stakeholders.	2026
2. Energy Transition and Maritime Decarbonization	Challenges and opportunities of the energy transition were identified, including operational efficiency, fleet modernization, infrastructure, regulation, fuels, and economic conditions.	Promote energy efficiency, technological modernization, and enabling conditions for the adoption of low-carbon solutions.	DIRNEA, CAMAE, MTCC-LA, maritime industry, and academia.	2026–2027
3. Green Shipping Corridors, Education and Capacity Building	Data and digital tools can support the identification of green shipping corridors, together with updated maritime education and training on sustainability and emerging technologies.	Build capacities, update curricula, and strengthen academic partnerships to support green shipping corridors and the energy transition.	MTCC-LA, DIRNEA, academic institutions, MDETI, and maritime sector stakeholders.	2026–2027
4. Sustainable Alternative Marine Fuels	Methanol, ammonia, LNG, and biofuels were assessed in terms of energy density, safety, toxicity, storage, life cycle, and technological and regulatory maturity.	Conduct comparative assessments and studies, provide training, and develop pilot initiatives to determine the applicability of alternative fuels in Ecuador.	MTCC-LA, technical experts, DIRNEA, CAMAE, academia, and the private sector.	2026–2027

Session / Topic	Results and Conclusions	Next Steps	Responsible Parties and Partners	Timeline
5. Regional Industry Alliance for Latin America (RIALA)	RIALA was presented as a mechanism to bring together industry, authorities, academia, technology providers, and financial institutions.	Formalize the participation of Ecuadorian stakeholders and develop collaborative projects on efficiency, fuels, digitalization, and financing.	MTCC-LA, DIRNEA, maritime industry, academia, and regional stakeholders.	2026–2027
6. Practical Workshop on Technological Solutions for Decarbonization	CII and LCA were applied to assess energy performance and emissions, highlighting the importance of operational data and the ship–port interface.	Strengthen training on CII and LCA and develop proposals and pilot projects with measurable and verifiable indicators.	MTCC-LA, DIRNEA, CAMAE, maritime industry, and academia.	2026–2027
7. Roundtable – Gender Equality and Maritime Sustainability	Gaps in women’s participation in technical and leadership roles were identified, together with the importance of MAMLa, WISTA, specialized training, and mentoring.	Strengthen training, professional networks, and access to leadership positions, supported by indicators on women’s participation.	MTCC-LA, MAMLa, WISTA, DIRNEA, academia, and maritime sector stakeholders.	2026–2027
8. Panel – Climate Finance and Project Structuring	Maritime decarbonization requires technically and financially sound projects, supported by clear baselines, climate impact, governance, and scalability.	Strengthen capacities to structure bankable projects, develop pre-feasibility studies, and expand engagement with financing institutions.	MTCC-LA, financial institutions, multilateral organizations, DIRNEA, maritime sector stakeholders, and academia.	2026–2027

Conclusion

The Second National Workshop 2026 of the **GMN Phase II** Project in **Ecuador** represented an important milestone in strengthening the national dialogue on maritime decarbonization and the energy transition. The event brought together the **Ecuadorian Navy**, through **DIRNEA**, industry, academia, financial institutions, and international organizations to exchange knowledge, identify challenges, and promote solutions aimed at reducing greenhouse gas emissions from Ecuador's maritime and port sectors.

The results demonstrated a strong institutional commitment to advancing energy efficiency, the adoption of alternative fuels, and stronger public-private cooperation, including confirmed interest in the Regional Industry Alliance for Latin America (**RIALA**). The workshop reaffirmed the importance of promoting gender equality and consolidating strategic partnerships to accelerate the transition towards a more efficient, competitive, and sustainable Ecuadorian maritime sector. These efforts are being advanced within the framework of the **GMN Phase II Project**, implemented by the **IMO** and funded by the European Union (**EU**) through the **Global Gateway** initiative, with the support of the International Maritime University of Panama (**UMIP**) and the National Directorate of Aquatic Spaces (**DIRNEA**) of the Ecuadorian Navy.

The workshop further reaffirmed the importance of continuing to strengthen national capacities, promote gender equality, and consolidate strategic partnerships to accelerate the transition towards safer, more efficient, resilient, and sustainable maritime transport in Ecuador, with the active participation of all stakeholders and leaving no one behind.



Disclaimer: The views, interpretations and conclusions expressed in this report are solely those of the authors and do not necessarily reflect the views or positions of the International Maritime Organization (**IMO**) or the European Union (**EU**).