

**PROJECT SUMMARY**  
**MARPOL FOR THE BLUE ECONOMY: THE CARIBBEAN'S FIRST MARINE WASTE RECEPTION**  
**AND PROCESSING FACILITY**  
**(BH-L1047 & BH-T1069)**

The Bahamas is a tourism dependent economy that attracts millions of visitors to its shores every year. These tourist arrivals make a significant contribution to the economy and the livelihoods of more than half of the population that depend on this sector. According to the World Travel and Tourism Council, The Bahamas was the 9<sup>th</sup> most tourism-dependent economy in the world in 2017. Tourism accounted directly and indirectly for 43.6 % of GDP, 55.7% of employment and 73% of exports in 2017.

While there are no concrete data on the volumes of marine wastes discharged into the Atlantic Ocean and Caribbean Sea, one global study indicates that during the last decade, illegal dumping and routine operations of vessels account for between 666,000 and 2.5 million tons of hydrocarbons per year being improperly discharged from vessels into the ocean. The risk of discharge into the Atlantic Ocean and the Caribbean Sea of pollutants, such as oil, noxious substances, sewage and garbage resulting from the normal operations of ships, poses a serious risk to the marine ecosystem and human health. Therefore, this has a significant impact on local populations that often rely on marine resources for their livelihoods.

Despite The Bahamas and most neighboring countries of the wider-Caribbean gaining access to MARPOL (International Convention for the Prevention of Pollution from Ships (1973)), the extremely high cost and complexity of building and operating a port reception facility to process liquid marine waste streams means that there are no adequate facilities throughout the wider-Caribbean, and so ships find it difficult to comply with the MARPOL regulations. Consequently, with limited knowledge throughout the region for Governments and their respective agencies to adequately enforce MARPOL and associated Conventions of the United Nations Environment Programme (UNEP), the risk of discharge into the region's seas of oil, noxious liquid substances, sewage and garbage resulting from the normal operation of ships, poses a serious risk to the ocean eco-system and human health.

Clean Marine Group, Limited (CMG) is a private early-stage firm, which was founded in 2017 in Freeport, The Bahamas. CMG has created an interesting business model to adapt an innovative use of cavitation technology to the needs of a modern day and efficient MARPOL port reception facility. They have obtained the license from the Grand Bahama Port Authority to operate and will collect and process all kinds of liquid waste emitted by ships, including black water, grey water, black and grey water, oily water and sludge, thus allowing ships that use their services to comply with MARPOL regulations. CMG currently operates a pilot MARPOL treatment facility in the Grand Bahama Shipyard and has undertaken successful trials in processing a variety of liquid marine wastes and has passed proof of concept for providing MARPOL-compliant processing of those wastes. CMG, having formed its initial alliance with the Grand Bahama Shipyard, proposes to now extend that alliance to other maritime based entities throughout the Bahamas and the wider-Caribbean, by developing out 4 acres of quayside land under lease from Freeport Harbor Company.

The proposed IDB Lab loan will co-finance the expansion of the port reception and treatment facility that will provide significant environmental and health benefits to the populations that reside in, or depend on ocean-related activities for their well-being, in the Bahamas, as well as the all other Caribbean countries that are affected by the improper disposal of marine waste and pollutants that are dumped into the ocean.

The Technical Cooperation component was carefully designed to ensure that funds from IDB Lab would be used to promote the creation of *public goods* that benefit the population and governing

bodies of The Bahamas and the wider Caribbean, through activities that help to improve the regulatory framework for MARPOL in the region, increase the number of Caribbean countries that develop an interest in and the capacity to follow MARPOL regulations, the applicability of the cavitation technology to land-based environmental or water-quality issues in the Bahamas, and the capture, synthesis and dissemination of the knowledge generated from this project, including lessons learned, best practices, and key factors of success.

This project was selected from a highly competitive group of over 35 project proposals from the Blue Tech Challenge in the Caribbean conducted by IDB Lab in the first quarter of 2019. It is the only project selected from The Bahamas and will be the first loan that IDB Lab has approved in that country.