

PRESS RELEASE

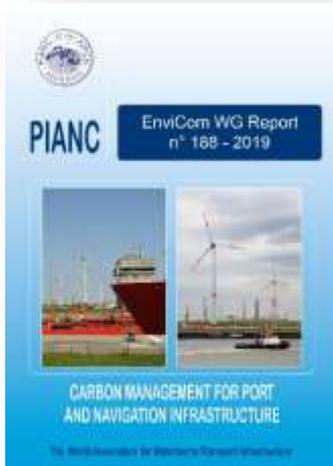


PIANC

The World Association for Waterborne
Transport Infrastructure

23 April 2019

NEW PIANC PUBLICATION AVAILABLE



Title:	'Carbon Management for Port and Navigation Infrastructure'
Author's:	EnviCom Working Group 188
Price:	€ 130,00 (127 pages)
Available at:	https://www.pianc.org/publications/envicom/wg188

Introduction:

PIANC's Working Group (WG) 188 on Carbon Management for Port and Navigation Infrastructure was tasked by PIANC to investigate the carbon footprint of activities related to development, maintenance and operation of navigation channels and port infrastructure including the management of dredged material. Life-cycle analysis (LCA) and other assessment methods supported this investigation and provided insights into opportunities for improved carbon management. The group was tasked to highlight exemplary case studies, identify good practices in the management of navigation infrastructure, identify opportunities to engage in carbon-sequestering activities, and summarize means to reduce the carbon footprint of the industry.

When considering developing a carbon management framework for ports and navigation infrastructure, taking proactive steps to effectively manage carbon will help an entity:

- *comply with emerging regulatory requirements,*
- *respond to general stakeholder and public pressure to reduce environmental burdens,*
- *take a leadership role in carbon management practices,*
- *address UN Sustainable Development Goals,*
- *drive innovation and investment while influencing future practice and regulation, and*
- *cut costs; through efforts to reduce energy consumption.*

In addition, there are unique opportunities to reduce and offset emissions from waterways navigation infrastructure development, including dredging and the beneficial use of dredged sediments, which need to be considered in any carbon management framework for this sector.

The WG188 guidance document was prepared to describe the important considerations when developing a carbon management framework and describes how carbon can be managed, influenced and reported for a navigation infrastructure project or a port with both land-side and water-side considerations. This document covers aspects of the whole lifecycle of the navigation infrastructure for completeness (as shown in Figure 1): from design to construction to operations/maintenance and end-of-life considerations.



Figure 1: WG188 Carbon Management Life-cycle for Ports and Navigation Infrastructure and Projects

Content of WG188 Guide on Carbon Management

The WG188 guidance document presents the information relevant when considering the development of a carbon management framework for navigation infrastructure including:

- *Section 1 - General Aspects* provides an introduction and the background on the objectives of WG188 scope.
- *Section 2 – Carbon Management Framework* gives an overview of a carbon management framework for navigation infrastructure. It sets out existing methods used to implement a carbon management framework and discusses management considerations, decisions, and challenges in developing, and implementing, such a framework for ports and navigation infrastructure.
- *Section 3 - Existing Initiatives on Carbon Emission Quantification* discusses approaches for the quantification of carbon emissions from port and navigation infrastructure. The methodologies described allow for the calculation of emissions related to a proposed design, both in terms of construction and operation. This section comprises a summary discussion with signposts to other reference documents containing more details on emissions calculation.
- *Section 4 - Best Practices on Carbon Emission Reduction* discusses that different opportunities to control and reduce carbon exist throughout the lifecycle of port and navigation infrastructure for both construction and operation phases. Generally, the earlier on in the concept development that carbon reduction measures are considered, the greater the ability to select options that reduce carbon emissions from the siting, design, and implementation (construction and operation) of the project.
- *Section 5 - Financial Aspects Related to Carbon Reduction Measures* focuses on the cost impacts of the reduction program. Any carbon emission reduction program, either in construction or operation, will be financially limited. It needs, therefore, to be financially optimized to obtain maximum reduction at limited cost. This concept requires overall financial ranking of different technical options in a certain program.

Implemented frameworks at ports and navigational infrastructure are presented as case studies in an appendix to help broaden the navigation community's understanding of the carbon footprint and sequestration potential of port and navigation infrastructure and activities. These case studies also present best practices used to address the carbon footprint of navigation channel development and maintenance projects which can differ based on location and context-specific factors; for example, some strategies may rely more on operational changes while others may seek built or natural infrastructure solutions.

NOTE: The objective of this report is to provide information and recommendations on good practice. Conformity is not obligatory and engineering judgement should be used in its application, especially in special circumstances. This report should be seen as an expert guidance and state of the art on this particular subject. PIANC disclaims all responsibility in case this report should be presented as an official standard.

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