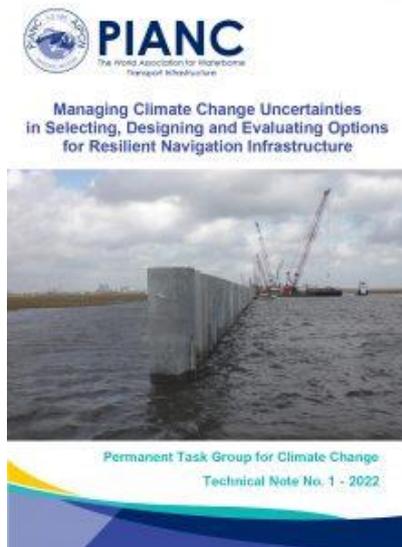


## April 2022 Technical Note No.1 on Managing Climate Change Uncertainties Published

It is widely agreed that urgent action is needed to adapt port and navigation infrastructure assets and operations and to ensure their resilience in the face of the changing climate. But climate change emphasises existing uncertainties and introduces new ones, and these uncertainties have potentially significant ramifications for those involved in navigation infrastructure design, evaluation and investment. So, what steps can be taken to accommodate these uncertainties while avoiding unintended adverse consequences such as increased vulnerability, diminished well-being or elevated greenhouse gas emissions.



PIANC-PTGCC's Technical Note No.1 'Managing Climate Change Uncertainties in Selecting, Designing and Evaluating Options for Resilient Navigation Infrastructure' aims to help project owners, designers and financiers deal with climate change uncertainties – not only in relation to the selection, design and evaluation of options for new infrastructure, but also the maintenance or modification of existing assets.

It explains that future climate scenarios can be used, with sensitivity testing, to accommodate uncertainties such as how quickly changes in temperature, precipitation, sea level, wind, waves and associated physical processes will take place; their magnitude; and whether and when critical thresholds will be crossed. It cautions against relying only on past data to predict low probability future events for long-life or high investment

infrastructure, and explains the value of considering unlikely-but-plausible scenarios when making major, long-term investments. It also stresses the need to prepare for the 'unprecedented', including joint occurrences and cascading failures.

The Note offers an insight into the critical role of adaptive and flexible solutions including 'no-regret' options, and it highlights why non-structural (e.g., operational, institutional) as well as structural interventions should be assessed. It focuses on the use of monitoring to inform decision-making (adaptive management). Finally, it stresses the importance of selecting option evaluation methods that recognise and accommodate uncertainty. Technical Note No.1. can be downloaded at <https://www.pianc.org/publications/envicom/ptgcc-1>