Background

Significant changes in climate and their impacts are visible globally and are expected to become more pronounced in the coming decades, partly as a result of increased concentrations of greenhouse gases (GHG) in the atmosphere. Climate change could have impacts upon ecosystems, biodiversity, human life and many economic activities, including the navigation sector. Climate change is by definition a global problem and cannot be solved by one nation, sector, or organization. Therefore, we must all work together, each in the area of our greatest strengths, to develop methods to adapt to, or to mitigate, climate change. PIANC, by its very nature, is a platform that can address the global impact of Climate Change on navigation.

Objective and Terms of Reference

The main goal for the new cross-commission permanent task group on climate change (PTG CC) being led by EnviCom is to build on the report of EnviCom Task Group (TG) 3 to inform PIANC on how navigation may be affected by climate change and where and how adaptation and mitigation actions need to be taken so that the necessary actions and investment can be done in a proactive way. Through participation and coordination with the outside world, the PTG on Climate Change shall also strive to become a global focal point for the waterborne transport sector on climate change issues and responses. The PTG shall provide a common and basic platform for all PIANC commissions to build up their work plans regarding climate change. The work will contribute to supporting waterborne transport as a sustainable mode of transportation.

Much work is already being undertaken by other organisations on maritime navigation mitigation. The role of the PTG in this respect will therefore be to monitor such activities, to disseminate information and to contribute to ongoing work where appropriate. Insofar as climate change adaptation for the maritime sector is concerned, there is a role for the PTG in collating and coordinating currently disparate information, identifying gaps, and contributing to further knowledge and guidance in this area.
On *inland* navigation matters, there is currently little dedicated coordination at a global level. The PTG will therefore take a lead in investigating, collating and promoting both mitigation and adaptation solutions, and providing guidance accordingly.

In detail, the permanent task group shall address the following matters:

- Facilitate the review of past commission reports to ensure that climate change is included.

- Further identification of relevant aspects of climate change effects on maritime and inland navigation, providing ‘pointers’ to ongoing work explaining where climate change effects and natural system variability are now, and where they will realistically impact the navigation sector in the future. Where scientific information does not adequately address the needs of the navigation community, the PTG will identify knowledge and technology gaps to drive future scientific research, both to inform PIANC and to contribute to others’ work. The gaps identified will be referred to experts for confirmation and/or further comments.

- Information related to climate change adaptation specific to the navigation sector needs to be gathered, including discussions of socio-economic issues related to climate change adaptation and guidance on measures and priorities for navigation, waterways and port infrastructure.

- For the inland navigation sector\(^1\), technical information and guidance will be developed for mitigation options (e.g., reduction in GHG emissions, alternative fuel concepts) and the trade-offs and implications associated with these options. Recommendations will be made where a particular topic needs to be explored in more detail.

- Propose a roadmap to PIANC, dealing with the formulation of options and examination of tradeoffs to address climate change in detail in the future. This may include proposals for new PIANC working groups.

- Develop a framework for information exchange, knowledge management and technology transfer related to climate change between PIANC Commissions and between PIANC and other organisations devoted to navigation, waterways, and port infrastructure, as well as other stakeholders.

- Participate in relevant networks and events in order to keep abreast of the latest developments in the field of climate change and waterborne transport and to share the

\(^1\) Mitigation options for the *maritime* navigation sector are taken care of by other organizations (e.g. IMO, IAPH).
work of the PTGCC. An up-to-date list of such networks, projects and initiatives will be maintained.

- All of the resulting outputs will be made available on the PIANC website.

### Working Group Membership

Members of the group should represent in a balanced way a broad cross-section of pertinent disciplines, including representatives of all technical PIANC Commissions, country experts, and other waterborne transport related organizations. Contact details will be provided and kept up-to-date on the thematic PIANC website to offer interested people best range of possible contacts. Since this is a permanent task group, a succession plan for the chairperson is necessary to ensure continuity. The chairperson must be versed in both the ongoing scientific and political processes about climate change as well as waterborne transport issues and requirements. As PTGCC is a PIANC EnviCom initiated and lead working group the chairperson and the secretary are also members of EnviCom. **The chairperson shall retain her/his position in general for no more than three four years. The chairperson can be confirmed by the ExCom for another 4-year term and after this for a third term at maximum two further terms on proposal of the, after which preferably a current member of the working-group will be chosen as the successor by the group as a whole in agreement with the Executive Committee of PIANC. A new chairperson will be proposed by the PTGCC to the ExCom taking into account nominations from the technical commissions. The same process will be followed if the chairperson steps down before the four-three-year term limit has been reached.**