

You are kindly invited to attend the public PhD defence of
Xiaohui Pan

“The response of groundwater levels to climate change and anthropogenic activities in arid regions: A case study in the Amu Darya Delta”

When? Wednesday 26 April 2023, at 10:00 (CEST- GMT+2),
16:00 (CST – GMT +8)

Where? Follow the online meeting via:

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Summary

In recent decades, the Aral Sea's shrinkage has been one of the most significant ecological disasters caused by human activities. Groundwater is a crucial component of water resources in this arid region. Due to long-term low-efficiency irrigation practices, the Amu Darya River dries up before reaching the South Aral Sea, leading to a rapid reduction in lake coverage. Additionally, the high groundwater table in the irrigation area plays a vital role in recharging the lake. This study suggests that high-efficiency irrigation management policies could meet agricultural demand and restore the South Aral Sea to a certain extent. The investigation provides insight into how natural aquifer response to anthropogenic impacts is critical to long-term sustainable groundwater use in water-shortage nations.

Examination Committee

Prof. dr. Alain De Wulf (Ghent University)
Prof. dr. Xi Chen (Chinese Academy of Sciences)
Prof. dr. Rudi Goossens (Ghent University)
Prof. dr. Patrick Willems (KU Leuven University)
Prof. dr. Jarek Chormanski (Prof. dr. Jarek Chormanski)
Prof. dr. Geping Luo (Chinese Academy of Sciences)
Prof. dr. Lanhai Li (Chinese Academy of Sciences)
Prof. dr. Huang Yue (Chinese Academy of Sciences)

Supervisors

Prof. dr. Tim Van de Voorde (Ghent University)
Prof. dr. Philippe De Maeyer (Ghent University)
Prof. dr. Tie Liu (Chinese Academy of Sciences)

About the Author

Xiaohui Pan (1991) is a joint PhD candidate at the Department of Geography at Ghent University and University of Chinese Academy of Sciences. In 2019, he started his PhD at State Key Laboratory of Desert and Oasis Ecology of Xinjiang Institute of Ecology and Geography, and 3D Data Acquisition research group of Ghent University. As a geographer, he is interested in the spatio-temporal variation analysis and hydrological numerical simulation.