



› Absolute sea-level rise and total subsidence together determine sea-level rise relative to the land surface.

Rise & Fall research program

The Rise and Fall research program aims to enhance the capabilities of individuals and organisations to develop sustainable strategies for dealing with groundwater extraction, land subsidence and salt water intrusion in the increasingly urbanizing Mekong Delta, Vietnam. The program focusses on subsurface characterization and subsidence, fresh and saline groundwater dynamics, salt water intrusion in estuarine channel networks, and governance strategies for sustainable management.

For more information see:

<https://www.uu.nl/en/futuredeltas/project-rise-and-fall>
<http://rf.ctu.edu.vn/en/components-1/>

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Rise & Fall research program



Towards strategies for the subsiding Mekong Delta in Vietnam

The challenges: urbanization, land-use change and subsidence

The Mekong Delta in Vietnam is rapidly changing due to urbanization, land-use transformation, and intensification of economic activities. The associated increase in fresh water demand has led to:

- 1 Large-scale extraction of fresh groundwater with rates seriously depleting the existing fresh groundwater reserves;
- 2 Salinization of groundwater and surface water resources;
- 3 Land subsidence, with current rates up to several centimeters per year, due to groundwater extraction, loading by buildings and infrastructure, and intensive drainage of the shallow subsurface;
- 4 Increased flood risk and flood water depth, resulting in land loss as well as damage to buildings and infrastructure.

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