

Mekong

Institut für Angewandte Geowissenschaften Abteilung Geochemie & Lagerstättenkunde Umweltmineralogie & Umweltsystemanalyse

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# **BSc/MSc Thesis – Geochemistry and Mineralogy**

The Mekong Delta in southern Vietnam covers an area of 39,000 km<sup>2</sup> and formed within the last 10,000 years by deposition of particles from Mekong. Around 17 Million people live here. However, the Mekong Delta is facing serious environmental challenges, which can be summarized as a loss of land and fresh water. Land subsidence, groundwater overexploitation, salinization, floods and droughts, coastal and riverbank erosion as well as climate change effects are threatening the delta in its very existence.

In the frame of the project "**ViWaT – Engineering**", we focus on these issues and investigate the environmental systems - particularly the ground and surface water dynamics - of the Ca Mau peninsula, the most southern part of Vietnam. One part of this work is the collection of water-, particulate matter- and sediment samples from ground and surface water bodies in several field campaigns.

## Topic of thesis 1:

• Geochemical and mineralogical analysis and evaluation of surface water and filter samples to identify the inland sediment transport dynamics and spatial distribution of pollutants.

## Topic of thesis 2:

• Geochemical and mineralogical analysis and evaluation of coastal water and filter samples, in-situ measured water quality parameters as well as sediment cores taken along the west coast of Ca Mau to identify sediment loads and the distribution of the coastal water quality.

### A travel to Vietnam in the frame of the thesis can be discussed!

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