

## *Water Resources Management*

# Agricultural Transformation for Adaptation to Drought and Salinization in the Mekong Delta, A case study in Ben Tre Province

The upper Mekong delta spreads across Cambodia and Vietnam and displays significantly different landscapes. In Vietnam, numerous water control infrastructures have been built for flood control with the effect of creating polders in which intensive agriculture can take place. In Cambodia, on the other hand, few infrastructures are found and large areas flood every year, supporting fishery-based livelihoods during the rainy season.

We are looking for a master level student with **proven skills in remote sensing analysis of landsat and/or radar imagery** to conduct an historical analysis of flooding patterns in the Upper Mekong Delta, and more specifically of the area located between the Bassac and the Mekong rivers (e.g. Kandal province in Cambodia and Vam Nao project area in Vietnam). One of the questions we aim to address is how “has water control infrastructures development have impacted flood patterns in the upper delta Mekong”? This work will contribute to research conducted on the modalities of land reclamation and water management as part of the DoUBT European collaborative project (<http://delta.hus.osaka-u.ac.jp/>).

The analysis will combine analysis of landsat and radar images to assess long term and recent changes in flood patterns, respectively. Among the key indicators that will be studied are (1) the starting date of flooding, (2) the peak inundation date, as well as (3) the speed of drainage.

This thesis/internship work may involve an oversee travel to Cambodia and/or Vietnam for ground truthing preliminary remote sensing analysis, depending on the availability and interest of the candidates (if so, travel and field work cost will be covered by the project).

Send CV and motivation letter.

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