

**Singapore Stanford Partnership Programme**

**MS Project MS08-19**

**Evaluation of Water Treatment Systems for Arsenic Contaminated Groundwater in Indochina**

**Lim Teik Thye**

Arsenic in groundwater is a major problem threatening groundwater supply for safe drinking water worldwide. Asian countries threatened by arsenic problems include Pakistan, Bangladesh, India, China, Cambodia, and Vietnam. There are several treatment methods that have been put forward to remove arsenic in water. The objective of this project is to assess a selected number of readily available arsenic removal technologies that have been used in developing communities, and understand their technical limitations in light of water chemistry. The scope of works for this research project are: (1) critical review of arsenic problems in drinking water in Vietnam and Cambodia, (2) to evaluate the performance of several arsenic removal technologies/systems involving pre-aeration, coagulation and adsorption or ion exchange; (3) to investigate effectiveness of several commercial and lab-prepared arsenic adsorbents. To work on this project, the student should understand the arsenic problem in the affected region. This is part of the project undertaken by Lien Institute For the Environment (LIFE), NTU.