

Climate change causes increases of the salinity of groundwater in the Mekong Delta. Groundwater abstraction for domestic, industrial and agricultural consumption exacerbates this process and causes land subsidence. These mechanisms put major stress on fresh water resources, and lead to insecure and unsustainable water supply for 17 million people living in the Mekong Delta region.

## Mekong Delta



# Vietnam

### Water supply and climate change

Similar effects influence the water supply in Ho Chi Minh City, home to another 8 million people. Water companies are scrambling to meet the continuously increasing demand for water. At the same time they have to deal with a deterioration of the quality of their raw water, in particular the increasing salinity of rivers and groundwater.

### Project objectives

This project aims to increase the resilience of water companies in the Mekong Delta and in Ho Chi Minh City in view of impacts of climate change. In addition, the financial and environmental sustainability of the water utilities will be enhanced by reduction of non-revenue water, and the coverage of water supply services will be extended, benefitting primarily low-income households.

The goal is to improve the availability of drinking water supply in the Mekong Delta in the long term by increasing the number of low-income households connected, reducing water wastage of water companies and industry, and addressing climate change and natural resources issues.

### Project Plan

The specific aims of this project are:

- Achieve climate change preparedness for water companies and in industry.
- Achieve water supply financial sustainability by improving operational efficiency (non-revenue water reduction to supply 178,000 people).
- Move away from ground water use towards surface water as a source of raw water by the construction of a new water treatment plant which can supply at least 80,000 people.
- Improve the water supply to the urban poor by extension of the network and the creation of new household connections for 130,000 people including 25,000 poor people.
- Reduce the water footprint of industries in the Mekong Delta.

### Main project activities

- Drafting of Climate Change Adaptation Plans and incorporation of suggested measures into water utility investment plans and local governmental policy.
- Establishing a curriculum for Can Tho University on climate change with adequate attention for public water supply.



- Specialist advice to water utilities to improve efficiency of operations in the fields of energy use, water losses, chemical consumption and non-revenue water (NRW).
- Construction of a 10,000 m<sup>3</sup>/day surface water treatment plant in Soc Trang.
- Realization of distribution network extensions and household connections.
- Advising major industries on improvement of water use efficiency.

## Sustainability

Continuation of the activities after the project's ending is guaranteed by close involvement of key actors in project formulation and a demand driven approach to the project. The main focus of projects of Vitens Evides International (VEI) is on capacity development in the fields of financial and operational sustainability. VEI pursues enhancement of financial management, planning & control, and operational efficiency, as well as an increase of the number of consumers receiving adequate water supply services. In our earlier projects we have shown that capacity development focusing on operational efficiency, including NRW-reduction and reduced use of energy and chemicals, leads to direct improvements in the beneficiaries' full cost recovery ratio. This enables our partners to enter into loan agreements for investments in new infrastructure in order to increase their customer base and, thus, provide water for all.

## Expected results

- Making water companies resilient in the face of the effects of climate change.
- Improving financial and environmental sustainability of the water companies.
- Develop sustainable water access, and backing away from excessive use of groundwater.
- Increase access to urban water services for urban poor families and ethnic Khmer minorities.
- Reduce water consumption of main industries in the Mekong Delta.

## Financing

The project is co-financed by the Dutch Ministry of Foreign Affairs, Vitens Evides International (VEI), UNESCO-IHE –

Institute for Water Education, Saigon Water Corporation (SAWACO), the water companies of the Mekong Delta provinces of Soc Trang and Tra Vinh, and the Dragon Research Institute for Climate Change of Can Tho University.

## Type of contract

Public Private Partnership (PPP).

## Contract value

The total contract value amounts to 10.0 million euro, of which 4.4 million is financed by the Dutch Sustainable Water Fund.

## Duration of the contract

Four years (1 April 2013 – 31 March 2017).

## About Vitens Evides International

Vitens Evides International (VEI) shares Dutch water skills with companies abroad. The need for enhancing the performance of these companies is real, as around the world, large numbers of people still have no access to safe drinking water and proper sanitary facilities. VEI is an international water operator, helping water companies in developing and transition countries to improve their operational and financial performance in a sustainable way. To make progress in such areas as water safety, non-revenue water, financial and technical sustainability and asset management. VEI is a cooperation between the two largest water companies of the Netherlands: Vitens NV and Evides Waterbedrijf NV. These two are the shareholders of VEI and provide VEI with human capital. Further participants of VEI are the Dutch water companies WML (Waterleidingmaatschappij Limburg), Waterbedrijf Groningen and PWN Waterleidingbedrijf Noord-Holland. VEI is a social venture. We work to give people a better existence. We do so by improving the performance of colleague water companies in developing and transition countries, preferably with a multiple-year partnership. VEI offers services in three areas: improving water services delivery, financial and technical sustainability, and green utilities. Each area consists of specific tasks and support. With our work, we contribute to the achievement of the Sustainable Development Goals of the United Nations.

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