

## Fact Sheet 9 Access to Clean Water in the Peri-Urban Areas of Can Tho City

by NADINE REIS

The peri-urban areas of Can Tho City are divided into areas with access to piped water schemes and areas without. Research revealed that in both areas clean water availability depends primarily on the financial capacity of a household. In network areas, the financial burden consists of buying a water meter and necessary pipes, which are the prerequisites for connecting to the water supply station. In areas without piped water schemes, access to clean water also requires financial means, e.g. for buying bottled water (a very rare case), drilling a private well and/or constructing and providing prerequisites (roof type, jars) for rainwater collection and storage.

For households connected to stations provided by the Center for Rural Water Supply and Environmental Sanitation (CERWASS), the availability of clean water is also connected to the availability of electricity and the commitment of the station manager. In areas without water supply stations, seasonal differences play the most important role, as most households can practice rainwater harvesting during the rainy season.

Another issue is the very low hygienic awareness of the population. It became apparent that some people believe that the river water is safe to use after filtering it “carefully” with alum and boiling it. Hence, the problem is not only related to the low ability to pay for piped water, but also to the low willingness to pay because of lacking awareness on the potential health effects of drinking (filtered) river water.

It is difficult to assess how many people have access to clean water because the available data show substantially different results, partly due to the application of a variety of definitions about what access to clean water means. Assuming that tap, well and rainwater are usually safe for drinking, cooking and personal hygiene, it is estimated that year-round access to clean water is problematic for 30-50% of the population in the peri-urban areas of Can Tho City. Based on the results of interviews with inhabitants, the following types of households have been identified (see table).

There are three groups of households for which year-round clean water availability is problematic:

**Household typology of water supply in peri-urban Can Tho City**

Households inside the network area				Households outside the network area		
Connected to the scheme		Not connected to the scheme				
Use water only from the scheme	Use a mix of water sources	Have a well and do not want/need to connect	Use river/rain water; want to connect, but have no money	Have a well and rain water storage capacity (do not want/need water supply scheme)	Use river and rain water, but rely on river water in the dry season	Use only river water (no capacity for collecting and storing rain water)

Have access to clean water
  Access to clean water is problematic

Table: Nadine Reis (2009)

1. Households inside the areas of piped water schemes that cannot pay for the connection fee
2. Households that do not have enough capacity to store rainwater through the dry season
3. Very poor households that have no capacity for collecting and storing rainwater.

So far, the policy approach for managing water supply in peri-urban areas has focused on the construction of small-scale piped water supply schemes that extract groundwater. However, this approach has not yet been able to solve the problems that the rural population is facing. On the one hand, this is related to the critical economic situation of the system, which averts the comprehensive coverage of all areas with water supply stations and the connection of all households to the networks. A low ability and willingness to pay for piped water, the low water tariff, the separation and privatisation of urban water supply, as well as rural settlement patterns, all contribute to the financial instability of the system.

Increasing the water tariff does not seem to be a feasible solution to the problem, as it is likely that households would save money by using even less station water, and thus revenues would not automatically increase. It is also questionable whether there will be sufficient funding in the future to expand the networks and connect all rural households, but the critical factor in the system still remains the economic situation of rural households.

The other critical factor for the future sustainability of the system is the use of groundwater for water supply schemes. First, the safety of groundwater for human consumption is – as with surface water – increasingly questionable due to the contamination of the groundwater source. Second, and most importantly, the use of groundwater is ecologically unsustainable

due to the fast depletion of the resource. For Can Tho, the groundwater level is estimated to decrease at a rate of around 0.5 m per year, in some areas even 0.7 m/year. Therefore, it will no longer be possible to extract groundwater through pumps in about five to ten years. It is thus clear that sooner or later, decision-makers in Can Tho City will rely on – abundantly available – surface water for covering the domestic water needs of the population. In this respect, the mitigation of water pollution is the most urgent mission for the sustainable development of Can Tho City.

#### Water supply station



Photograph: Nadine Reis (2009)

#### Further Reading

REIS, N. & P. P. MOLLINGA (2009) Microcredit for Rural Water Supply and Sanitation in the Mekong Delta. Policy implementation between the needs for clean water and 'beautiful latrines'. ZEF Working Paper Series 47.

REIS, N. (2011) Tracing and Making the State. Policy Practices and Domestic Water Supply in the Mekong Delta, Vietnam. Lit Verlag (forthcoming)

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