

Household Water Treatment, Storage and Handling in the Mekong Delta, Vietnam

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Introduction

Vietnam has undergone a significant transformation process since 1986. As the Mekong Delta, with 429 inhabitants/km², is one of the most densely populated regions in Vietnam, water-related health issues are pressing.

Surface and groundwater pollution has become a major environmental problem in the delta. Waste water treatment systems for the industrial zones in the delta are in rather poor condition or even absent.

The common way of disposing of human excreta is the so-called fish pond toilet or direct defecation into rivers and canals.



Background

Socialist Republic of Vietnam

- 86 million population
- 27% urban, 73% rural
- 64 provinces
- 92% access to improved drinking water sources
- access to improved sanitation
- 65% total, 88% urban, 65% rural

Mekong Delta

- 18 million population
- 78% rural population
- 68% access to improved drinking water sources
- 44 % access to improved sanitation

Objectives and methods

Study objectives

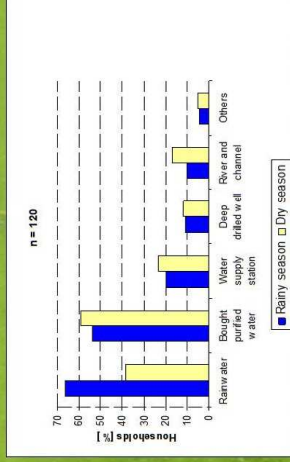
- Water and sanitation-related hygiene behaviour
- Perception of water, sanitation and health
- Actual sanitation situation
- Links to cultural and traditional background

Methods

- Standardised interviews (n = 120)
- Focus group discussions (n = 3)
- Semi-structured interviews (n = 12)

Drinking water sources

- Utilization of two or more water sources to cover drinking water needs during the rainy (55%) and dry seasons (42%)
- 53% of the households are connected to the groundwater works
- 67% harvest rainwater
- 70% rated their drinking water as "good"
- bought purified water (38%) was rated as the most popular drinking water source followed by rainwater (34%)



Drinking water sources

Water source		Aluminium sulphate		Cloth filter		Boiling		Others	
n	%	n	%	n	%	n	%	n	%
70	58	0	0	3	4	3	4	0	0
29	24	10	8	0	0	14	11	0	0
13	11	59	49	15	12	0	0	77	64
70	58	0	0	0	0	0	0	0	0
Number of households		Number of households		Number of households		Number of households		Number of households	

Drinking water treatment methods



Rain water harvesting



Clay jugs for storing water



Washing dishes in the river



Tap receiving water from groundwater works

Behavioural aspects

- People assess the quality of drinking water according to visible contamination (43%), turbidity (18%), odour (18%) and other factors (20%)
- Due to matter of taste rainwater and surface water are preferred and groundwater is disliked
- Absence of spirituality concerning water in day to day live
- Water is frequently linked to disease. River water is assessed as the most hazardous water source in terms of causing disease (81%), but on the contrary fish pond toilets are preferred because of reasons such as "using the fish pond toilet is much more comfortable", "cooler", "more convenient" and "people's habits"

Key features for improving local water-related health are:

- The identification of incentives for the abolishment of fish pond toilets and subsequently abolishing them
- The promotion of best practice for rain water harvesting and storage
- The discouragement of the population from using chemically and microbiologically highly polluted river water for drinking, personal hygiene and household purposes
- Development of risk communication strategies

References

- World Health Statistics 2008. URL: <http://www.who.int/whosis/whostat/08/en/>



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