

IWA Sanitation Challenge
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Perception of water, sanitation and health – a case study from the Mekong Delta, Vietnam

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Vietnam

- 85 million inhabitants
- 1990 – 2004 access to improved drinking water increased by 20% (65-85%)
- 1990 – 2004 access to improved sanitation increased by 25% (36-61%)



United Nations (2006). The Millennium Development Goals Report 2006. New York, United Nations Department of Economic and Social Affairs.

Mekong Delta, Vietnam

- 18 million inhabitants
- 14 million live in rural areas
- 5.7 million lack improved drinking water supply
- Two thirds (10 million) lack improved sanitation



Vietnamese Academy of Social Sciences (2007).

Vietnam poverty update report 2006: poverty and poverty reduction in Vietnam 1993-2004. Hanoi.

Study objectives

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

Survey setting

- 120 households in An Binh ward housing area 7
- Service area of water supply station (2002)
 - Groundwater (capacity 6,000 L/day)
 - Rapid sand filtration and activated charcoal
- **53%** connected to the water supply station
- Standardised questionnaire, focus group discussions, semi-structured interviews

Household metadata

Sex of household head 74% male

Household size (mean) 5 persons

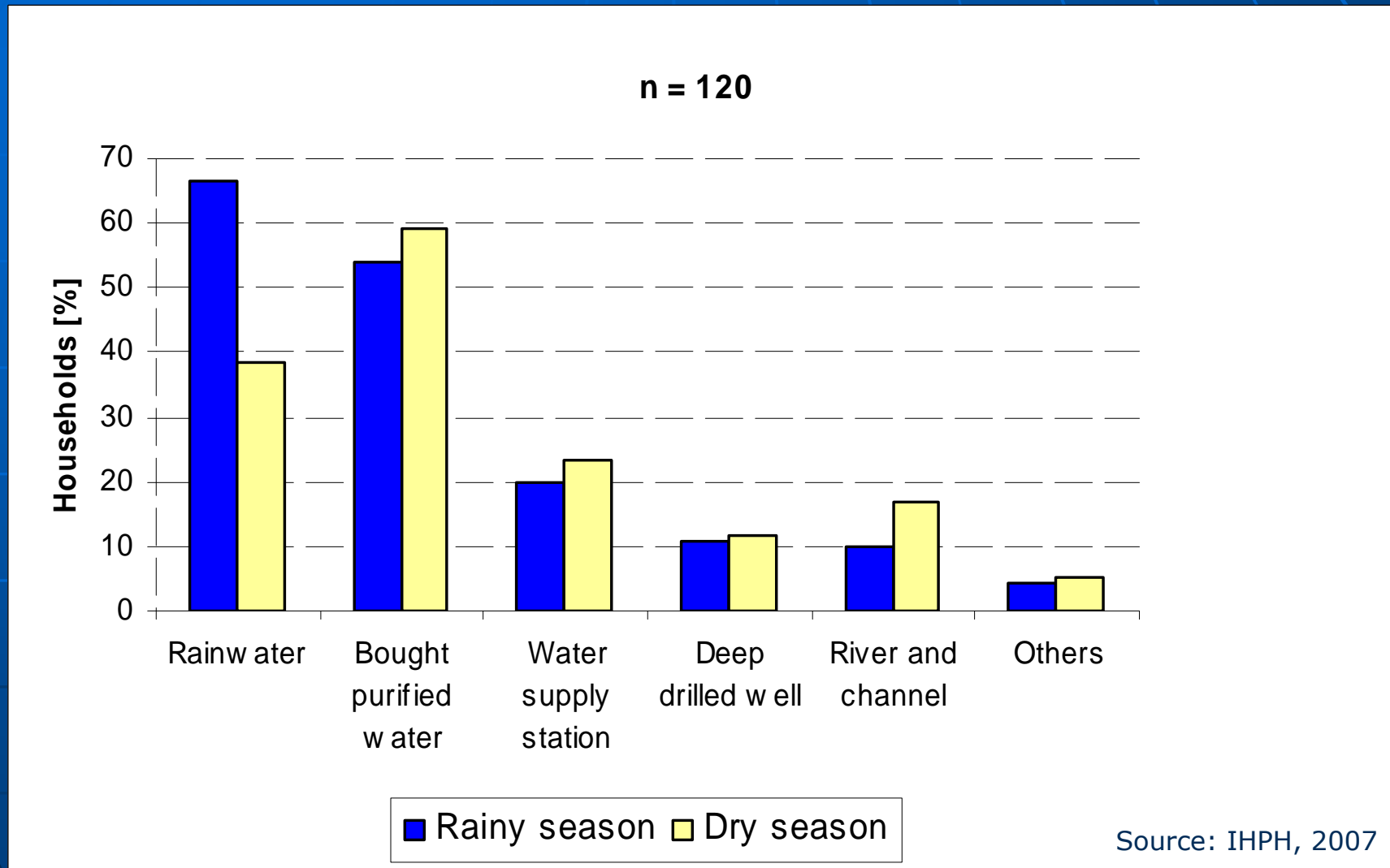
Sex of respondent 95% female, 5% male

Occupation 55% housewife, 10% trader, 8% pupil/student

Education 87% elementary or junior high school



Drinking water sources



Rain water harvesting

- 67% utilise rainwater
- Harvesting from roof
- Time span between start of raining and collection
 - 28% immediately
 - 14% after 5 minutes
 - 55% after 5-15 minutes

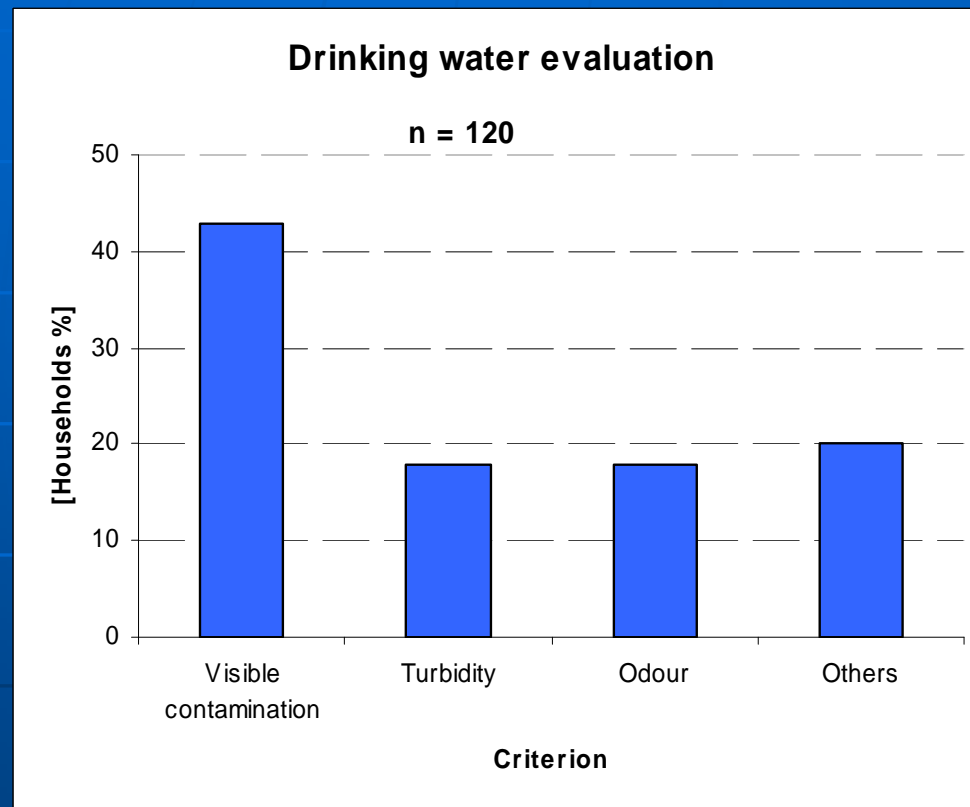


Household drinking water storage

- 98% store water at home in
 - Clay jugs (42%)
 - Plastic barrels, tanks, flasks (51%)
- Storage of water from water supply station: 70%
 - Intermittent supply
 - Sedimentation



Respondents' criteria for drinking water evaluation



- 70% rated their drinking water as "good"
- only one respondent considered it as "bad"

Source: IHPH, 2007

Drinking water treatment methods

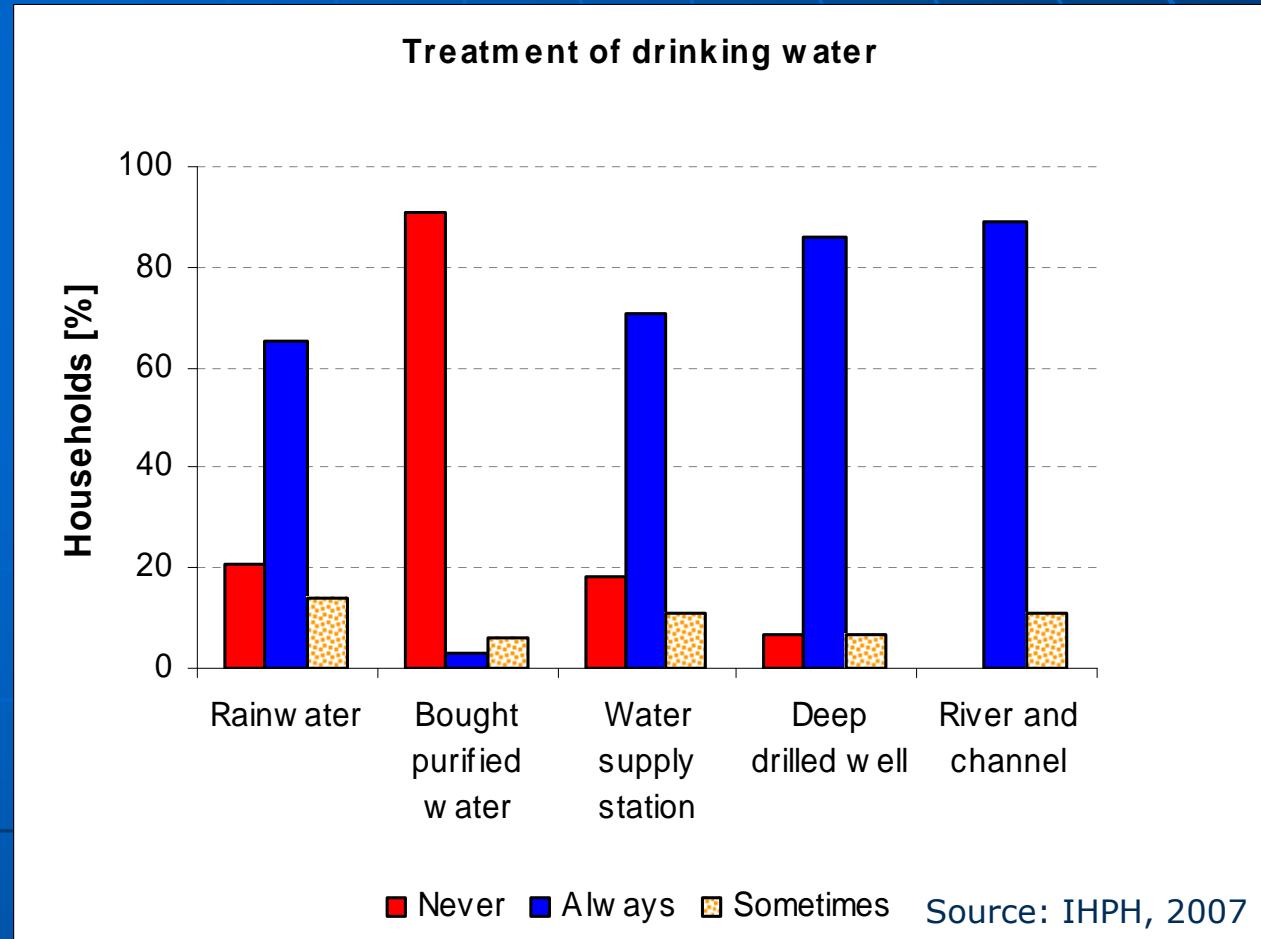
Treatment of drinking water						
Water source	n*	Aluminium sulphate	Cloth filter	Ceramic filter	Boiling	Others
		%	%	%	%	%
Rainwater	79	1	67	8	46	5
Water supply station	29	10	3	14	83	0
Drilled Well	13	69	15	0	77	0
River/ Channel	20	85	0	10	80	0
Bought purified water	70	0	0	0	6	0

*number of households

Source: IHPH, 2007



Drinking water treatment frequency

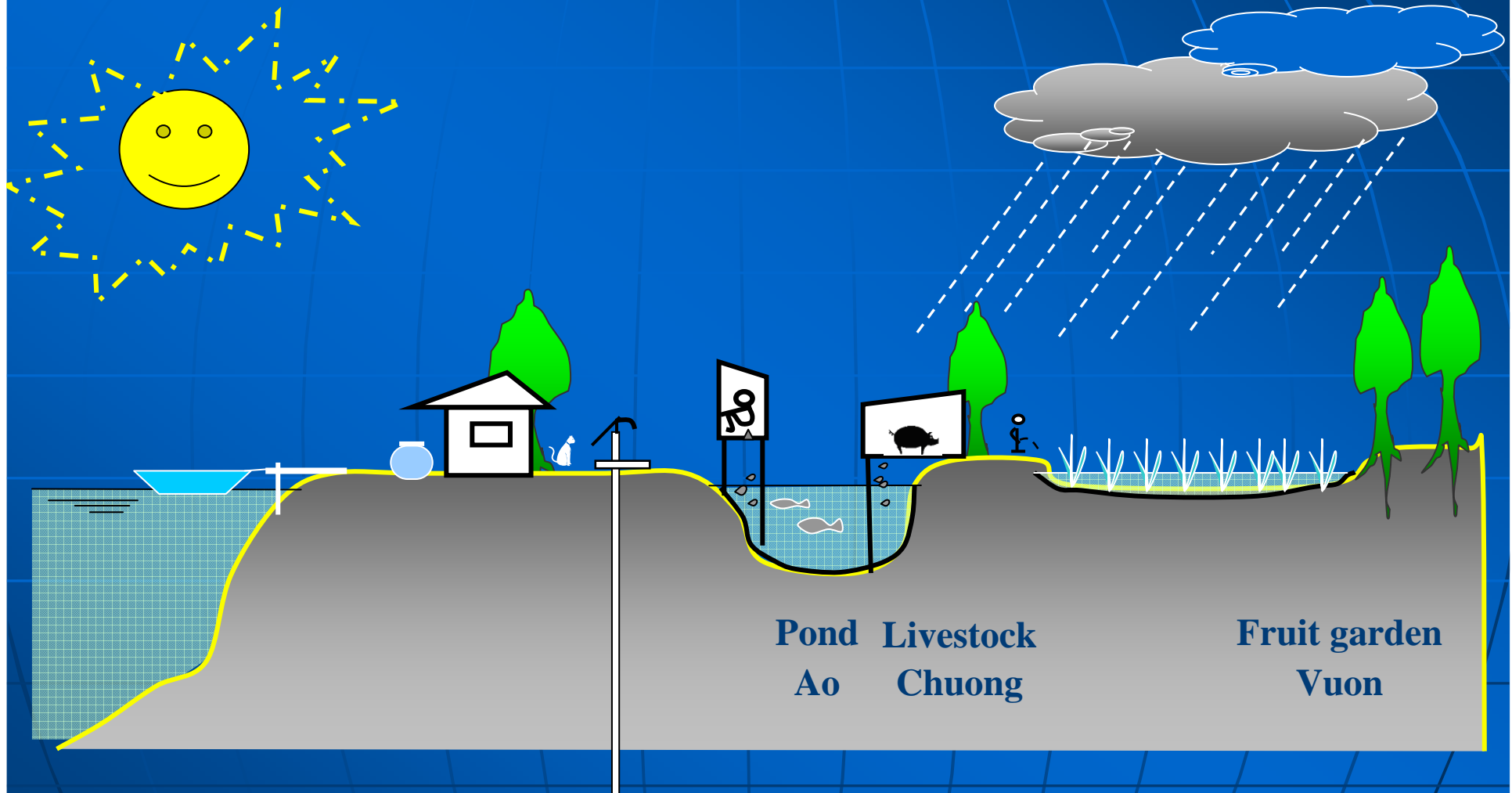


Who cares for the drinking water?

- 44% wives of household heads
- 26% female household heads
- 9% daughters-in-law
- mostly aged between 26 and 55 years

→ Water is the women's job

Typically sanitary situation



Le Anh Tuan, 2003

Sanitation

Sky toilet 64%

Pit latrines 17%

Flush toilets 13%

- 77% of all respondents are satisfied with the situation
- 73% of fish pond toilet users
- 85% of pit latrine users



Hygiene – hand washing

Direct questions about hand washing...

- After defecation: 97%
- Regarded as essential: 90%
- 6-times per day (median)

When do you wash ... ?

- After defecation: 51%
- Before eating: 43%
- Before preparing food: 40%

Hygiene – river water utilisation

Taking a bath

- In the river: 44%
- In a bathroom: 86%
but also often provided
with river water



Untreated river water for household purposes

- Washing dishes 15%
- Laundry 34%

Perception of diseases – assessment

- Water can cause disease: 90%
- Most hazardous water: river/channel (90%)

Water as cause of disease				
respondents' assessment [%]				
Disease	yes	no	don't know	don't know this disease
Diarrhoea	76	11	11	2
Cold	48	39	12	1
Worm infection	32	36	14	18
Dengue	30	48	19	3
Malaria	25	48	17	10
Headache	13	73	1	13
Fatigue	10	78	12	0
Meningitis	4	48	28	20
n = 120				

Perception of diarrhoea

33%	Serious disease
60%	Disturbing belonging to everyday life
97%	For children dangerous or very dangerous
75%	Can lead to death in children
46%	No relation between hand washing and diarrhoea
44%	Relation between hand washing and diarrhoea

Symptoms for dehydration are hardly known!

Conclusions

- The major share of population has access to unimproved sanitation
- People have a fuzzy idea on the links between water, sanitation and health
- Basic knowledge on preventive hygiene measures exists, however hygiene measures are often put into practice in an untimely manner or are applied in an incorrect way
- Links between water utilization and spirituality could not be detected

Recommendations

- Identification of incentives for the abolishment sky toilets and subsequently abolishing them
- Promotion of best practice for rain water harvesting and storage
- Promotion of other water, sanitation and health-related hygiene strategies including the discouragement of the population from using untreated chemically and microbiologically highly polluted river water for drinking, personal hygiene and household purposes

The people behind the work

