



# **NGOs in Water and Health Policy Planning and Implementation – Partners or Enemies?**

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## **WECF**

**Women in Europe for a Common Future**

**Bucharest, 15 June 2010**

# Sustainable Water and Sanitation Projects

by WECF & Partner Organisations in the EU and the EECCA region

**Belarus**  
Our partner organisations: ECOPROJECT PARTNERSHIP  
Monitoring nitrates in well water with school pupils

**Ukraine**  
Our partner organisations: BSWC, MAMA-66, VOZROJDENYE  
1) Room with urinals in a school with urine diverting dry toilets and 2) training on making pumps

**Uzbekistan**  
Our partner organisations: MEHRIBAN  
1) Urine diverting toilet for household 2) Children from Uzbekistan

**Kazakhstan**  
Our partner organisations: YOUNG GUARDS OF NATURE, MCHL, LGAM  
Inside view of urine diverting dry toilet in Kazakhstan

**Kyrgyzstan**  
Our partner organisations: SOCIAL UNION AGERKECH, ALGA, BIOM, CAAW, HFHK, ULGU, UNISON  
1) Training on sustainable sanitation 2) and household urine diverting toilet in Kyrgyzstan

**Azerbaijan**  
Our partner organisation: EKOT  
Introduction to sustainable sanitation in Azerbaijan

**Tajikistan**  
Our partner organisations: ASPD, NAU, YECT, SAFO  
Urine diverting school toilet building under construction in Tajikistan

**Romania**  
Our partner organisations: EUROTELEORMAN, FEMEI PENTRU UN VIITOR CURAT FYC, MEDIUM ET SANITAS, SLOBOZIA, O ILO  
1) Demonstration of re-use of urine in a school and 2) training on how to make pumps in Romania

**Afghanistan**  
Our partner organisation: KATA CHEL e.V.  
A new school with urine diverting dry toilets for the children in Afghanistan

**Bulgaria**  
Our partner organisations: EARTH FOREVER, ECO WORLD  
1) Urine diverting dry toilet with a soil filter in a cultural centre in Bulgaria 2) Inside view of the urine diverting toilet

**Moldova**  
Our partner organisations: ECOTOX, ECO-SPECTRUM, ECO-TIRAS, WISDOM  
1) Urine diverting dry toilet and 2) a new drinking water well for a kindergarten in Moldova

**Armenia**  
Our partner organisations: ANRHE, CHARITABLE WOMEN, ECOLORE CLUB  
1) Urine diverting dry toilet for a school and 2) water sampling from a public drinking water in Armenia

**Georgia**  
Our partner organisations: FOUNDATION CAUCASUS ENVIRONMENT, GERMA, FOE / GREENS MOVEMENT OF GEORGIA, RDCA, PAROS, SEMA, SDCA  
1) Porcelain urine diverting toilet production and 2) resource centre for sustainable development in Georgia

WECF receives financial support from:

- Netherlands Ministry of Foreign Affairs
- Netherlands Ministry of Environment
- European Commission
- German Ministry of the Environment
- German Federal Foundation of the Environment
- Fondation Ecologique, France
- Private donors
- Federal Agency for the Environment

WECF the Netherlands, France, Germany, May 2009

Water and Sanitation projects by WECF and partner organisations:

- Construction of urine diverting dry toilets for households, public places and schools
- Production of porcelain urine diverting seats
- Construction of solar heated showers
- Demonstrating the effects of urine as a fertilizer
- Building soil filters and constructed wetlands for treatment of wastewater
- Monitoring of drinking water quality
- Cleaning and construction of drinking water wells
- Developing Water Safety Plans with involvement of schools
- Establishment of demonstration centres for sustainable development

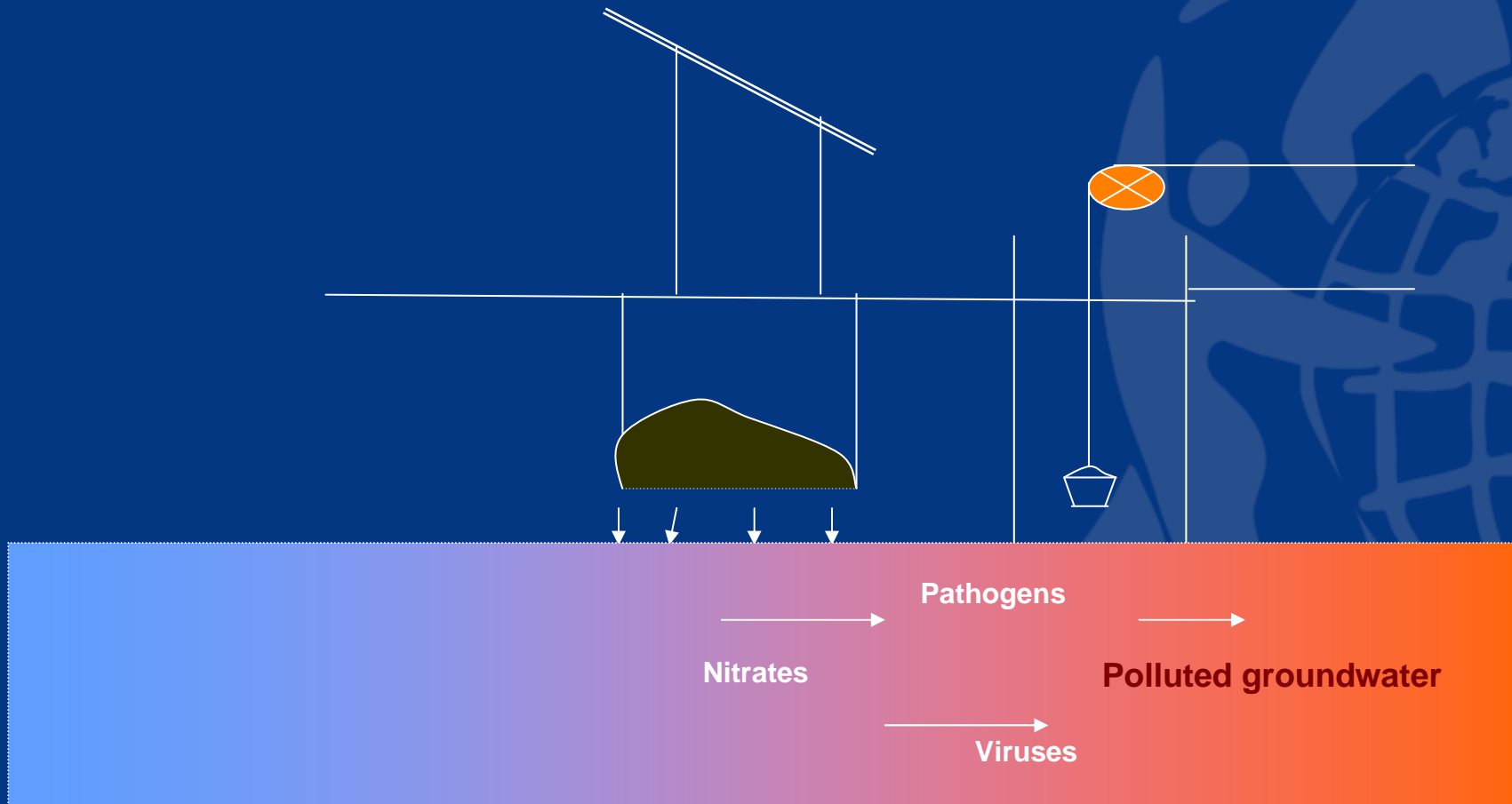
Women in Europe for a Common Future

# Child Mortality (MDG 4) & Sanitation (MDG 7)

- Epidemiological study WHO collaborative center Bonn (Aral Sea Region)
- “Children under 2 years of age had the highest diarrheal disease burden with 8.4 episodes per year”.
- Main reasons “contamination of drinking water and direct living surroundings with human faecal bacteria”



# Increasing access to sanitation - polluting water?



# Link between water quality, sanitation, hygiene and health

## diseases:

- Blue baby disease
- Giardia Lambia
- Urinary Lithiasis
- Thyroid dysfunction



# Roles of NGOs in:

- Access to information
- Planning and implementation of solutions
- Awareness raising
- Watch dog function

# Challenge 1: base line data

## Lack of local capacity to monitor water quality:

- Lack of (mobile) laboratories
- Lack of local experts
- Lack of adequate indicators
- Lack of information for citizens
- Lack of awareness



# Challenge 2: inadequate local institutional structures

In rural municipalities, water supply often:

- Responsibility of (regular changing) mayor
- Lack of continuous funding
- Lack of local expertise

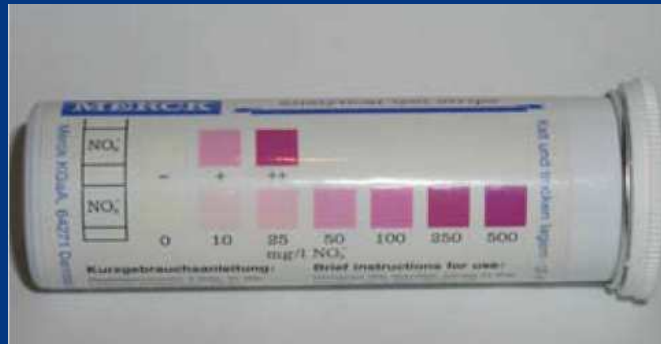
## Public Participation:

- Awareness with water consumers
- Community water committees/companies
- Protection of water sources

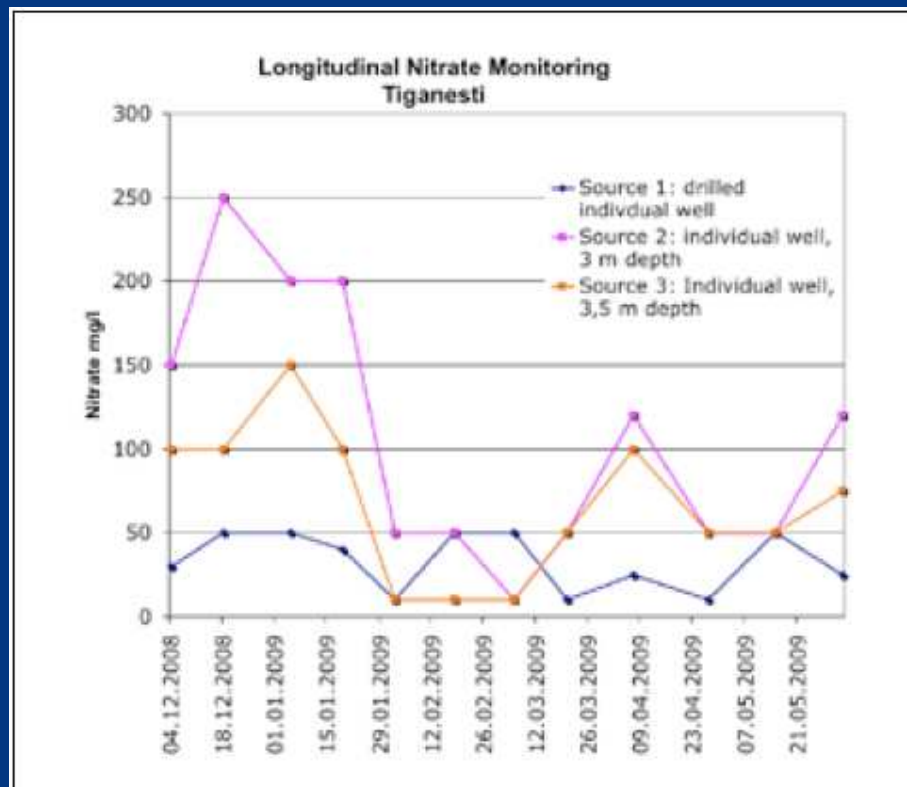


# Best practice 1: monitoring

## Water Safety Plans for Schools



# Best practice 2: information on water quality and health



[www.wecf.eu](http://www.wecf.eu)

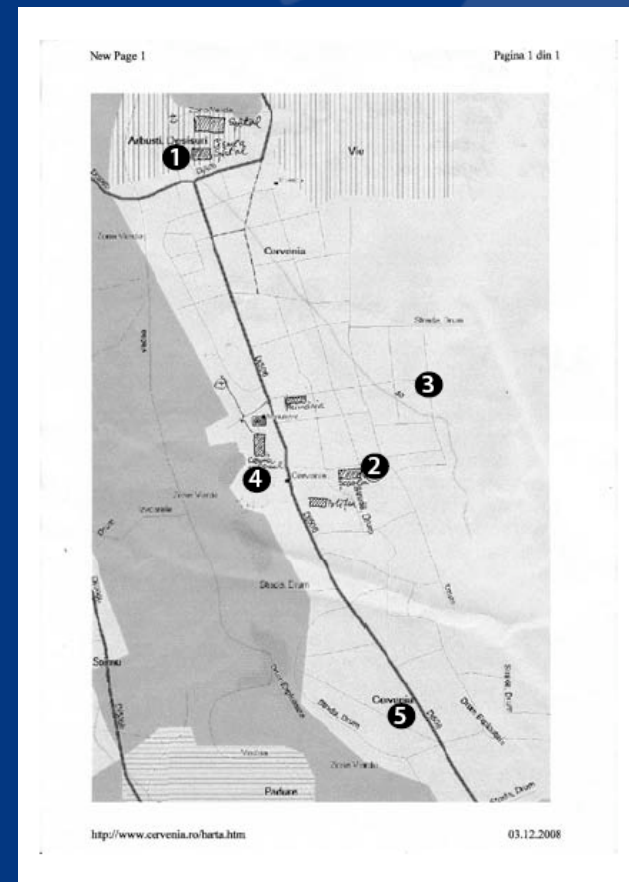


Figure 4. Map of Cernevia: wells in the lower part, nearby the river Veda were very polluted

# Best practice 3: independent information on water quality

WECF - English - Campaigns & Events - ToNi-Finder

http://www.wecf.eu/new/english/campaigns-events/2009/toni-finder.php

Home | Campaigns & Events | News & Reports | Publications | Links | Newsletter | Calendar | Press Relations | Contact

Enter search term



## WECF | Women in Europe for a Common Future

About WECF | Energy & Climate | Chemicals & Health | Water & Sanitation | Biodiversity & Food | Gender & Rights

### Campaigns & Events

- Copenhagen Climate Summit 2009
- ToNi-Finder - WECP's Map for Sustainable School Toilets and Nitrate Levels
- Children's Environmental Health Award 2010
- 5th World Water Forum, Istanbul 2009
- International Year of Sanitation 2008
- Nuclear Power is not a Solution to Climate Change
- Asbestos: a Silent Killer on a Global Scale
- "Environment for Europe", Belgrade 2007
- Breast Cancer: Policy and Prevention
- 4th World Water Forum, Mexico 2006
- Clean up Greece - REACH Youth Event, 2005
- Beijing + 10, 2005
- "Our common future", Budapest 2004
- 3rd World Water Forum, Kyoto 2003
- World Summit on Sustainable Development, 2002
- Commission for Sustainable

### ToNi-Finder

WECF's Map for Sustainable School Toilets and establishing Nitrate Levels in Ground, Surface and Drinking Water

01.10.2009 | WECP Campaign

Countries: Eastern Europe / Central Asia  
Donors: Netherlands Ministry of Foreign Affairs, DGIS, The Netherlands; European Commission DG Environment; Foundation Ensemble, France  
Partners: Diverse NGOs  
Issues: Sanitation, Water, Chemicals  
Duration: 10/2009 - 10/2010



Map showing Nitrate levels in mg/l and locations of school toilets (green circles) and urine diverting dry school toilets (red squares) across Europe and Central Asia. Legend: Nitrate in mg/l: < 50, 51-100, 101-300, > 300. Icons: Green circle for school toilets, red square for urine diverting dry school toilets.

Children's Environmental Health Award

Ministerial Conference Parma, March 2010

Children's Environmental Health Award

WECF Activity Map

Women in Europe for a Common Future (WECP)

Watch the movie about WECP

"WECF promotes ideas of women for a grandchild-friendly environment."  
Margriet Samwel  
Coordinator Water and Sanitation

# ToNi Finder

What do you search for?

Water sources

Please select a country

Villages

Ahalubani

All

Bahor

Baneasa

Bashtanovka

Beiu

Bereke

Beshkapa

Burnooktyabrckoe

Cervenja

Chablynsky

Chardahi

Chasma

Chernyahovskoo



More about Nitrates

# ToNi Finder

What do you search for?

Water sources

Please select a country

Villages

Beiu

Cervenia

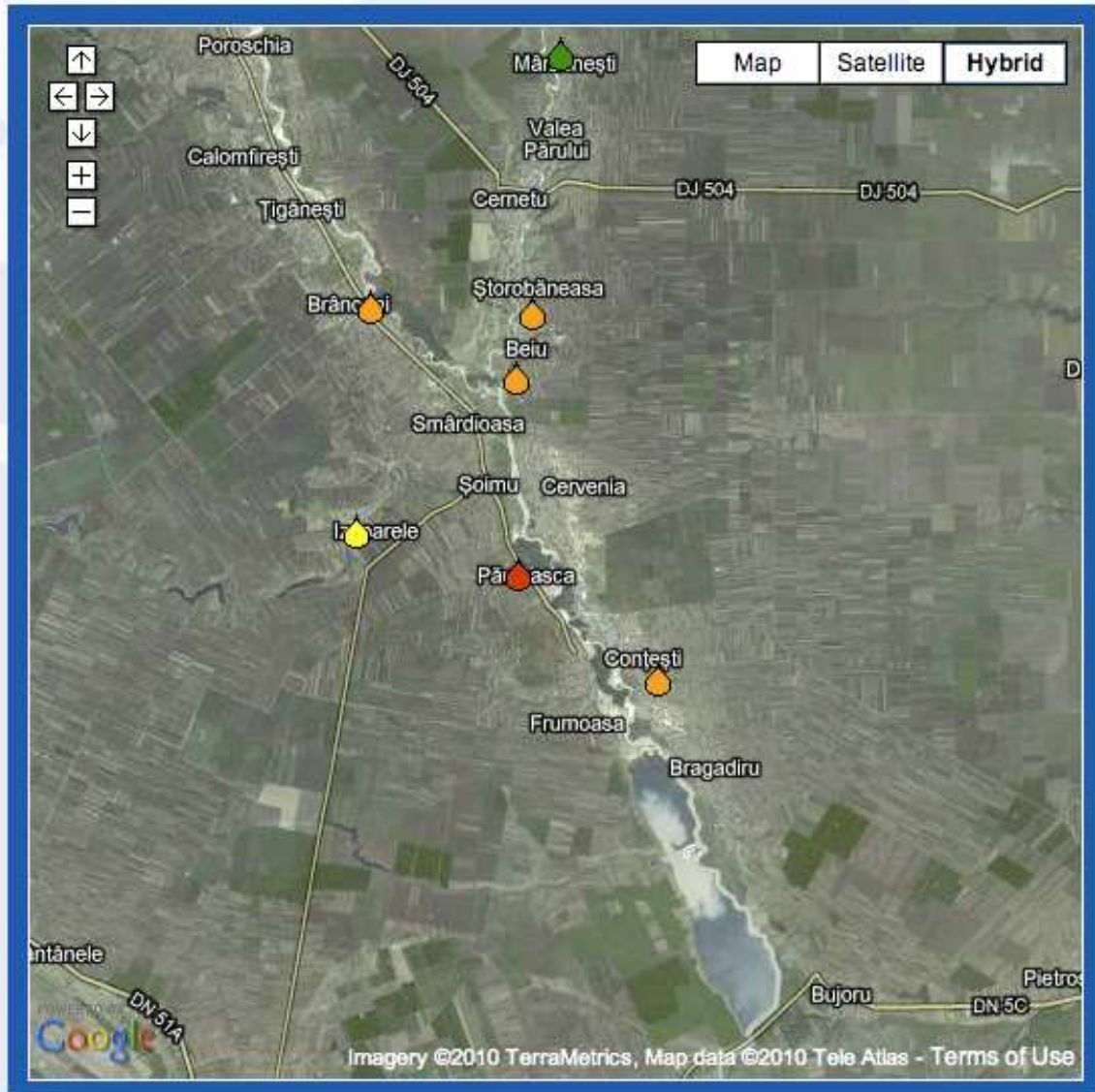
Contesti

Izvoarele

Marzanesti

Storobaneasa

Tiganesti



Nitrate in mg/l:

<= 50

51-100

101-300

> 300

[More about Nitrates](#)



Nitrate in mg/l: ● <= 50 ● 51-100 ● 101-300 ● > 300

[More about Nitrates](#)

**Contesti**

Teleorman, Romania

Number of Inhabitants: n.a.

**Nitrate concentration in different water sources**

**2008**

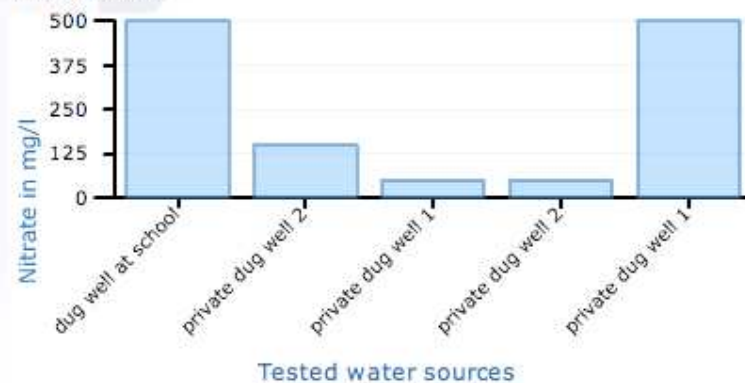
Number of samples: 5

Nitrate concentration in mg/l

Average: 250

Minimum: 50

Maximum: 500



# School Sanitation Issues in Germany



- vandalism, lacking appreciation
- insufficient cleaning and maintenance
- malfunction or missing hardware

# Study of School Sanitation in Berlin, Germany

## Study 1 (GTO, WECF)

- 133 students at 24 schools

## Study 2 (GTO, Project CLEAN)

- 86 students at 4 schools





# Quality of School Sanitation Facilities

## Study 1 (GTO, WECEF)

- 55% of students classify their school toilets as unsanitary
- of these students over 70% avoid using the toilets

- 
- 46% of all students rarely or never use school toilets

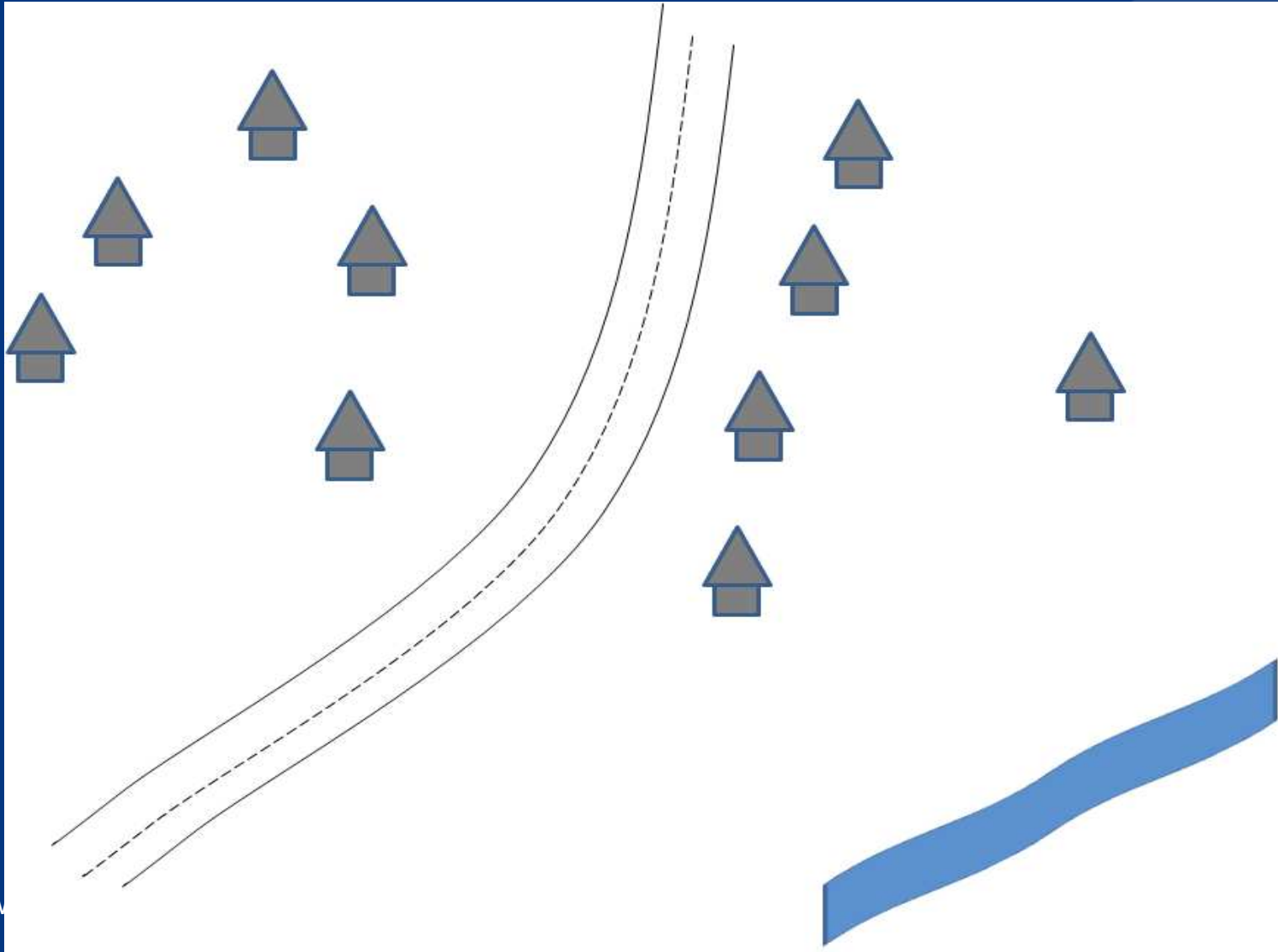
## Study 2 (GTO, Project CLEAN)


- Students award toilets with a mark of 4,7 (1: great, 6: fail)

- 
- 49% of all students rarely or never use school toilets

# Challenge 3: information on technical solutions

- Lack of local engineers knowledge affordable technical solutions
- Lack of knowledge municipalities planning
- Lack of technical guidelines for decentralized and onsite technical solutions

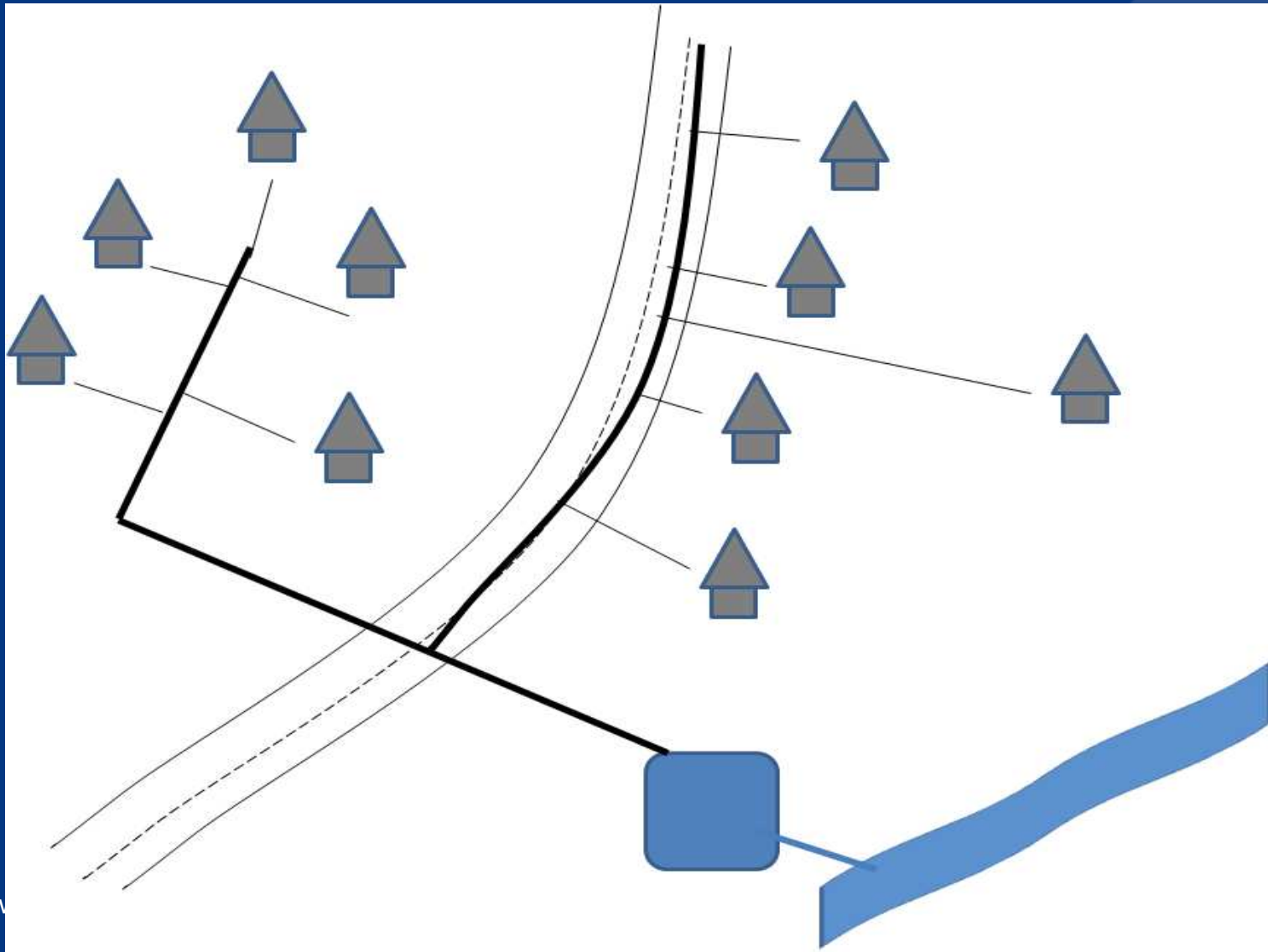




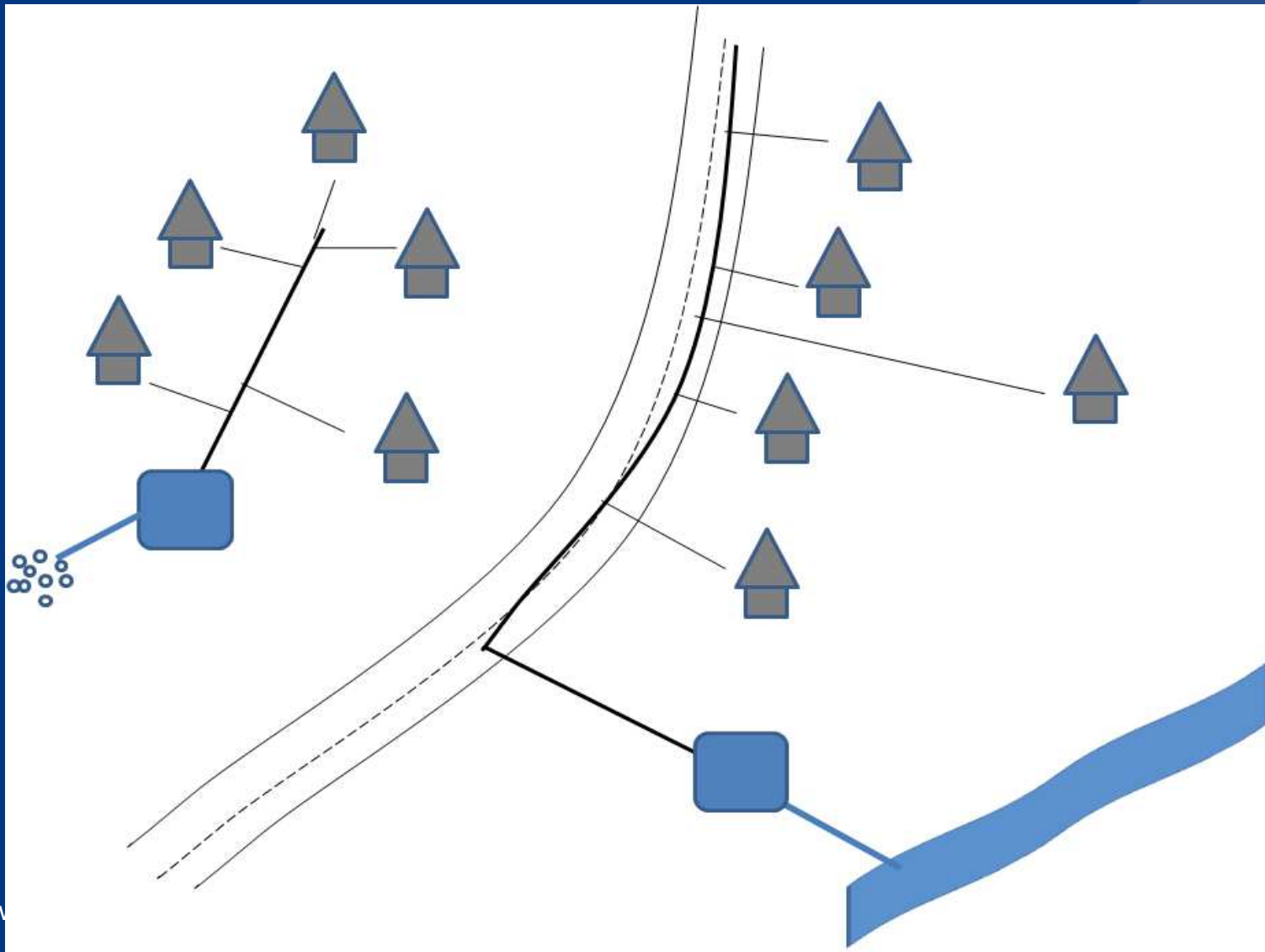
The diagram illustrates a wastewater collection system. It shows a residential area with several houses represented by simple icons. A network of pipes is shown, including a main sewer line and several smaller collection lines. A dashed line indicates the location of a treatment plant. A blue arrow points from the houses towards the treatment plant, indicating the direction of wastewater flow. The background is a dark blue gradient with a faint globe and a person silhouette.

**Which sanitation and wastewater collection and treatment system is the best?**

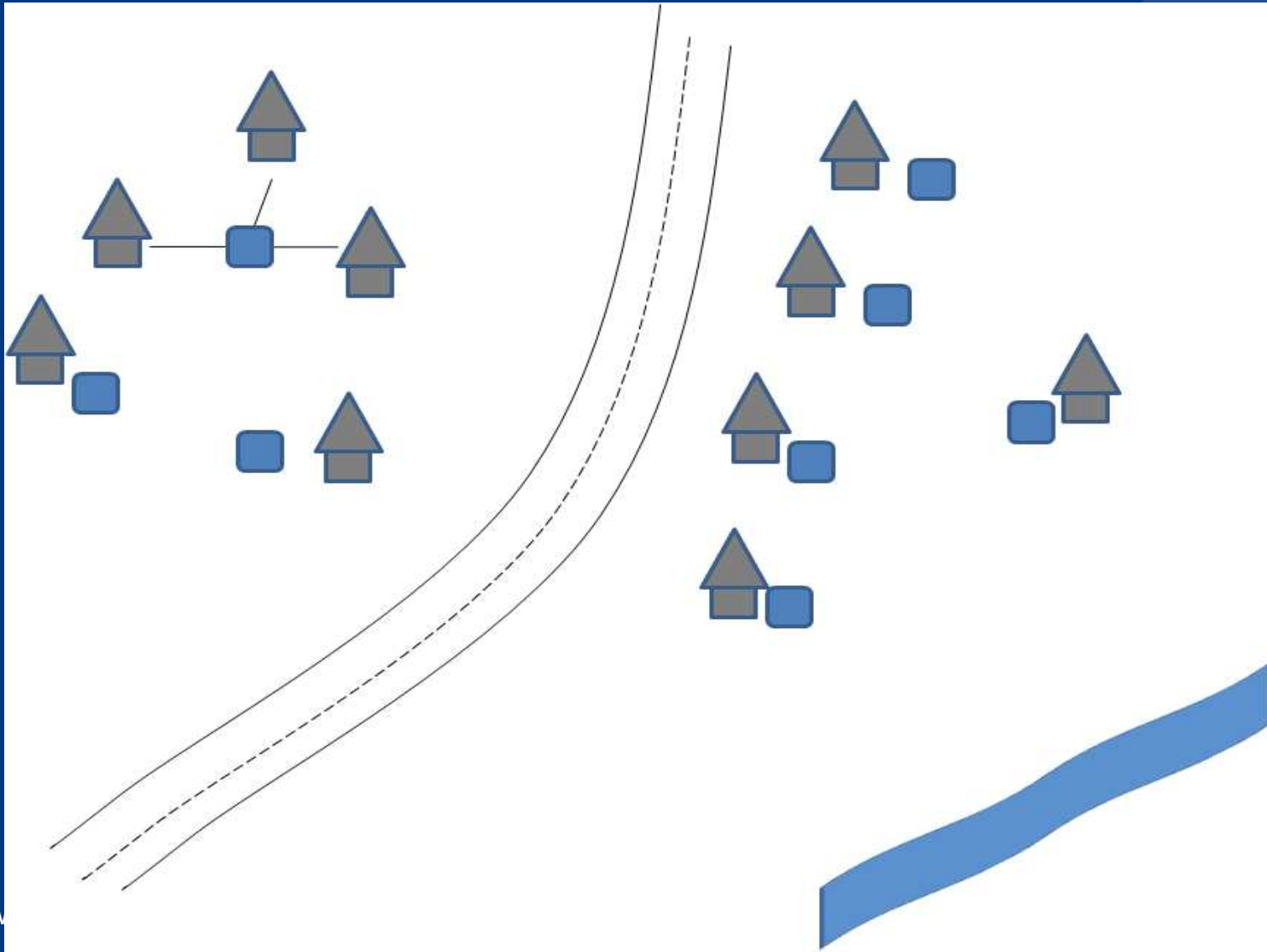
# Centralised System



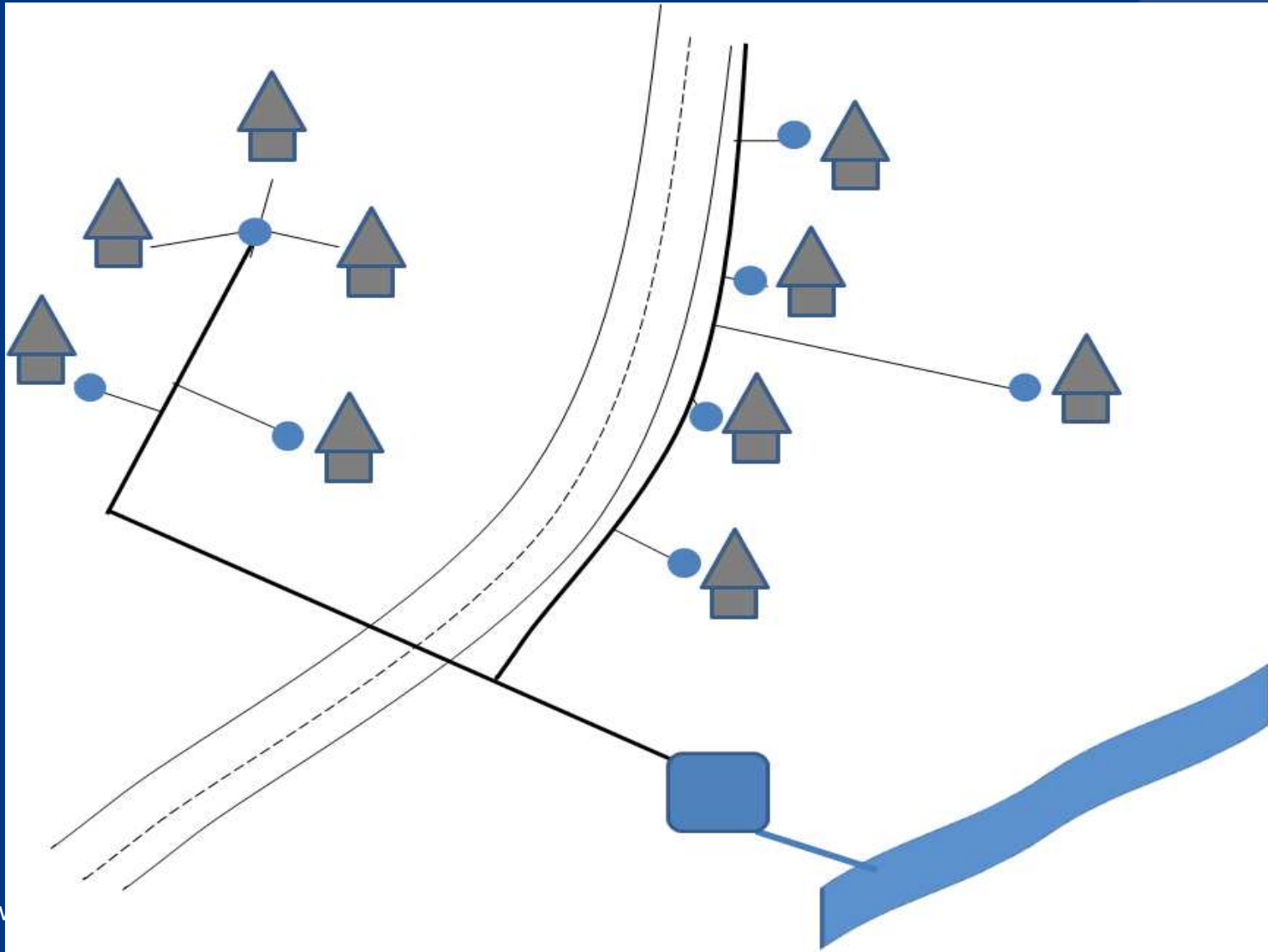
# Semi-centralised System



# On-site System



# Combined On-site and Centralised System





# Selection of the best wastewater treatment and collection system

No solution fits all

Depends on the site characteristics

- Water availability, quality and demand
- Housing density / space availability
- Potential for re-use of water and nutrients
- Climate and soil conditions
- ...

# Protecting ground water and improving sanitation and hygiene in schools

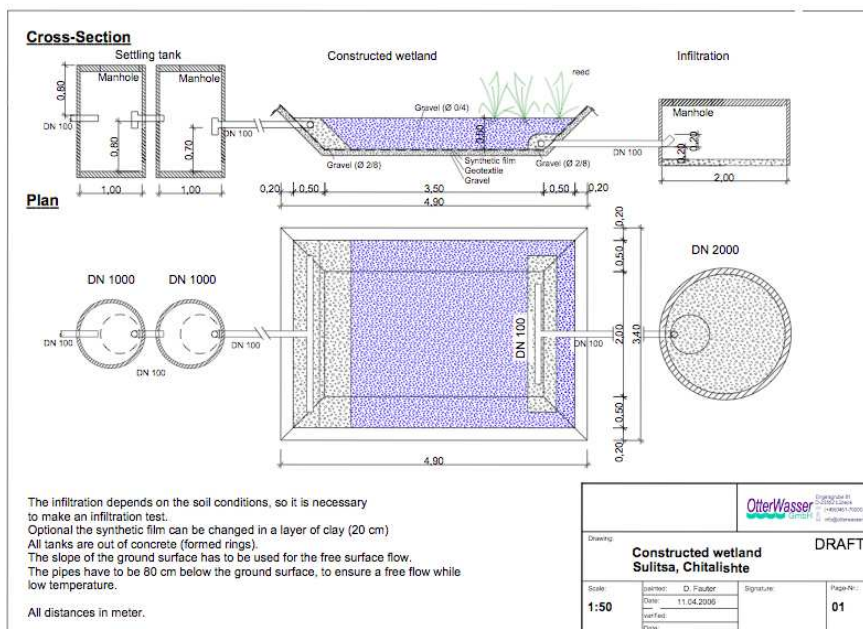


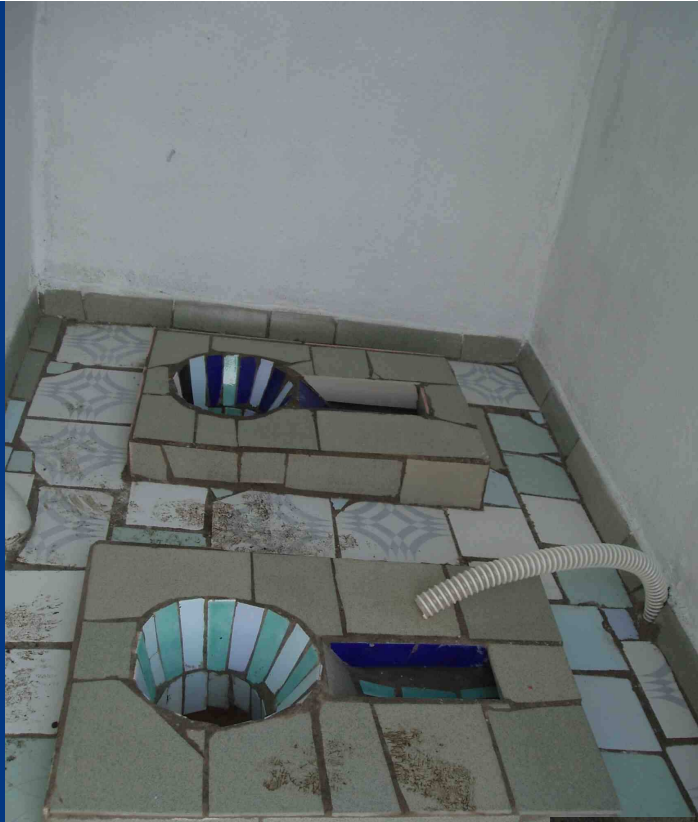
- Privacy
- 4x more toilets girls
- cleaning brush, waste basked



# Bulgarien Vidrare: On-site wastewater treatment

- Constructed wetland for children-home 75 PE
- Cooperation with ww consultant
- Training-high level event for BG engineers and decision makers





# Sustainable and cost-effective wastewater systems

for rural and peri-urban communities  
up to 10,000 PE



Guidance paper

## 3. Examples for sustainable and cost-effective sanitation and wastewater management

### 3.1 Ponds

#### Natural pond for combined sewerage, Sören, Northern Germany

##### Project description

The wastewater treatment in the natural pond system serves 300 PE. Domestic wastewater together with rainwater from a combined sewerage network is the influent to the treatment plant. The system comprises three ponds.

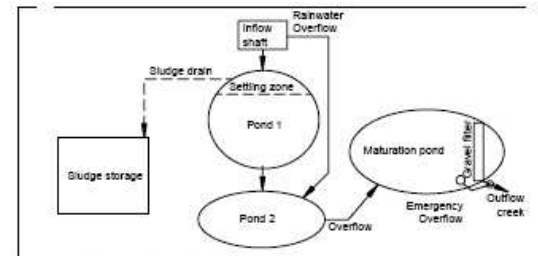


Figure. 7: Scheme natural pond system in Sören, Germany



First pond with settling zone

The treatment plant consists of a first pond with the settling zone (1,200 m<sup>2</sup>) and a second stabilization pond (1,500 m<sup>2</sup>). A third pond serves as maturation pond on the one hand and on it gives additional space for the storage of rainwater on the other hand (1,200 m<sup>2</sup>).

##### Performance

The average effluent concentration is with 56 mg/l COD very low. In wintertime, the COD of the effluent is higher (about 90 mg/l COD) due to the cold climate but the standard can always be met. Nutrient removal is not required here as the treated wastewater is discharged into a creek nearby which is not a sensitive area.

# Challenge 4: Awareness on responsibility of water users

- Protection of water sources (waste, oil, pesticides)
- Good Hygiene practices (hand washing, cleaning)
- Willingness (and capacity) to pay for safe water supply and sanitation
- Contribution to planning and implementation of safe water and sanitation

# Is our water too expensive ?

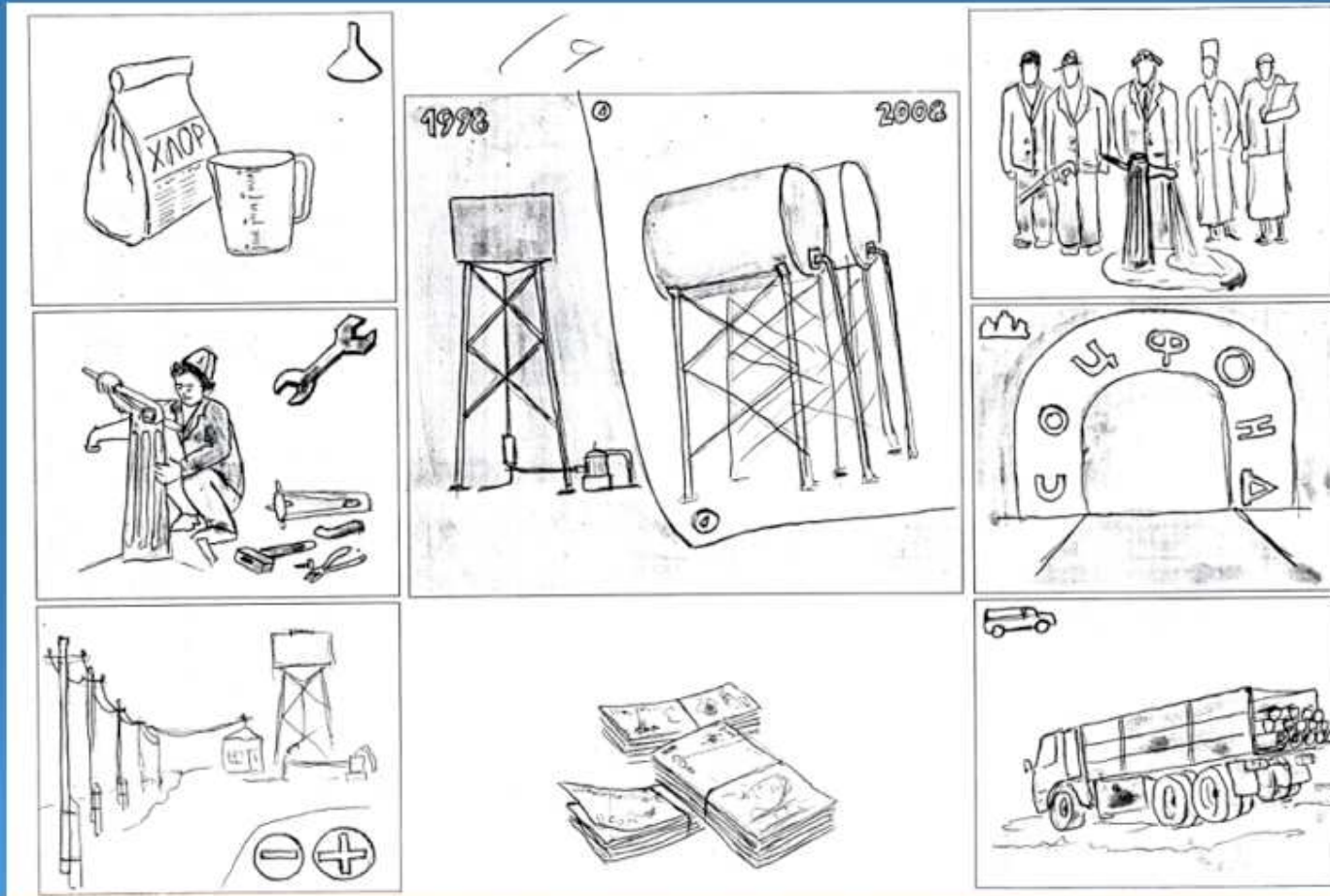


➤ Bottled water €0,50



➤ Vodka €2,50

# Why do we need to pay for water?





# Education and awareness on hygiene, water, sanitation

CAAW Central Asia; hygiene education

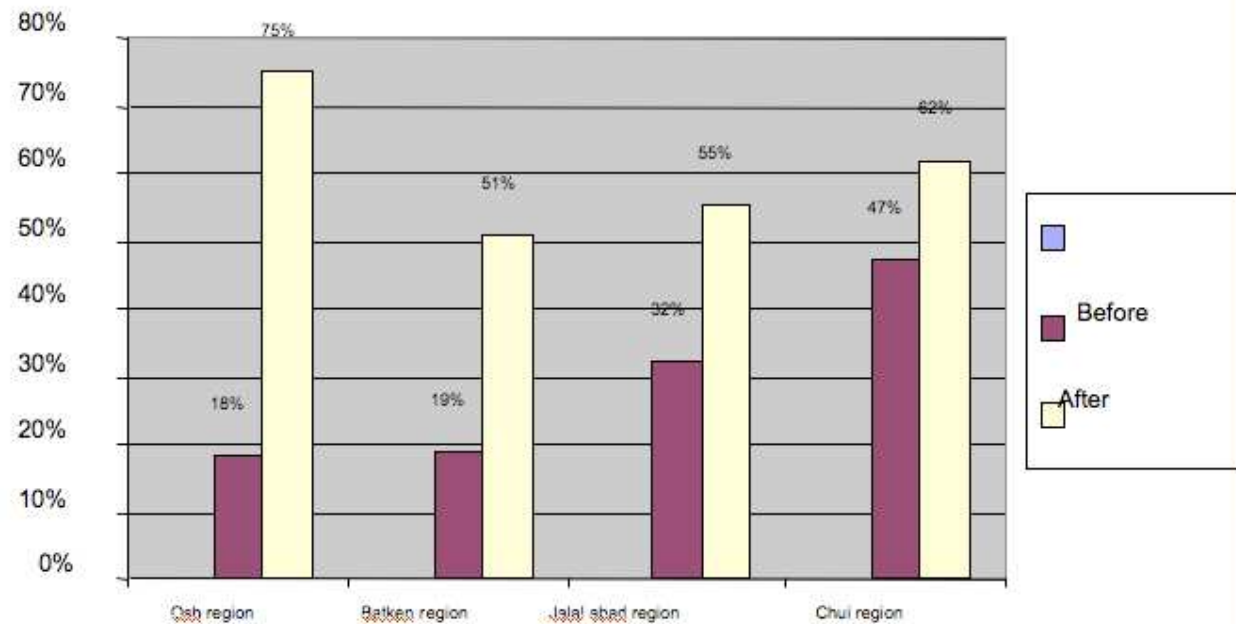
- 315 local facilitators trained (project with ADB)



# PHAST Impact: facilities increased



Availability of the washstands



# Renovation old water supply system in village Armenia

- Local citizens laid new pipes
- Creation of water committee
- Training of local authorities
- Setting prices, operation, maintenance



# Involvement which stakeholders?

- Selection?
- Election?
- Capacity?
- All 9 mayor groups
  - Farmers
  - NGOs
  - Women
  - Indigenous / minorities
  - Youth
  - Local Authorities
  - Entrepreneurs
  - Trade Unions
  - Science

