



# **Barriers and Challenges of Implementing Sustainable Sanitation Practices within the WHO-Euro Region**

**Dr. Claudia Wendland**  
**WECF**

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# 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-86, 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 MCHM, UGAM  
Inside view of urine diverting dry toilet in Kazakhstan

**Kyrgyzstan**  
Our partner organisations: SOCIAL UNION AGERBECHI ALGA, BDM, CAAM, HEHC, ULGU, UNISON  
1) Training on sustainable sanitation 2) and household urine diverting toilet in Kyrgyzstan

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

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

**Armenia**  
Our partner organisations: AWIHE, 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, GEEMA, FOE GREENS MOVEMENT OF GEORGIA, HDCA, PAROS, SEMA, SDCA  
1) Porcelain urine diverting toilet production and 2) resource centre for sustainable development in Georgia

**Azerbaijan**  
Our partner organisations: EROT  
Introduction to sustainable sanitation in Azerbaijan

**Romania**  
Our partner organisations: EUROTELEORMAN, FEMEI PENTRU UN VIITOR CURAT FIC, 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

**Bulgaria**  
Our partner organisations: EARTH FOREVER, ECO WORLD  
1) Urine diverting dry toilet with cross 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

Women in Europe for a Common Future

- 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 Ecoville, 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







# Awareness Raising and Public Participation by WECF and Partners

тися еко-туалетом

Тільки одна з цих малюнків  
зображає правильний спосіб  
використання еко-туалету. Знайдіть  
його серед інших малюнків в  
жовтому Тестовому Відео  
Ваше рішення вплине на розвиток  
Служби Інформації, Інформації  
Технічної Підтримки, Служби



Сеча не повинна потрапляти до відсіку з калом!  
Користуйтеся пісуаром!



Після  
відвідування  
туалету добре  
мийте руки з  
милом!!!



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# Sustainable Sanitation Projects by WECF and Partners







# School Sanitation Implementation based on UDDT by WECF and Partners







## Treatment of Wastewater by Constructed Wetlands/ Soilfilter and/ or Biogas Plants



# Barriers of implementing new sanitation systems

- Considered as low-tech and not modern
- Not accepted by the authorities
- Not known in the population
- Worries about hygienic problems
- Lack of regulation on re-use of water and nutrients (in spite of WHO guidelines)

# How to make sanitation successful?

## Definition Sustainable Sanitation

*([www.SuSanA.org](http://www.SuSanA.org))*

- (1) Health and hygiene
- (2) Environment and natural resource
- (3) Technology and operation
- (4) Financial and economic issues
- (5) Socio-cultural and institutional aspects



# Technology and operation

Lack of knowledge on decentral and onsite sustainable sanitation systems



## Financial and economic issues

Sanitation has not the first priority in household budget

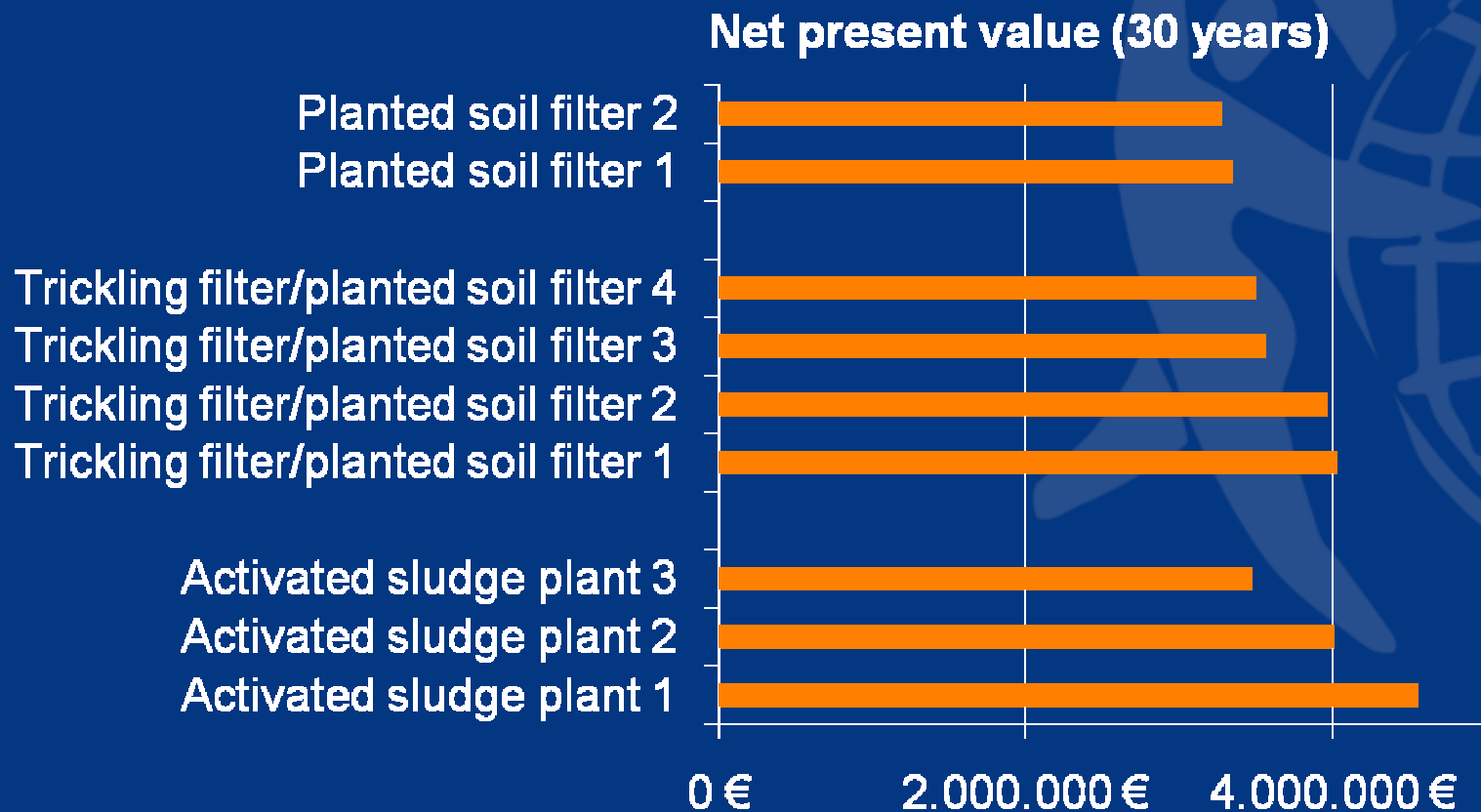
Lack of finances: a new toilet is for many families not affordable

No proper cost-benefit analysis is carried out comparing different scenarios for sanitation (decentralised versus centralised, technical versus natural systems)



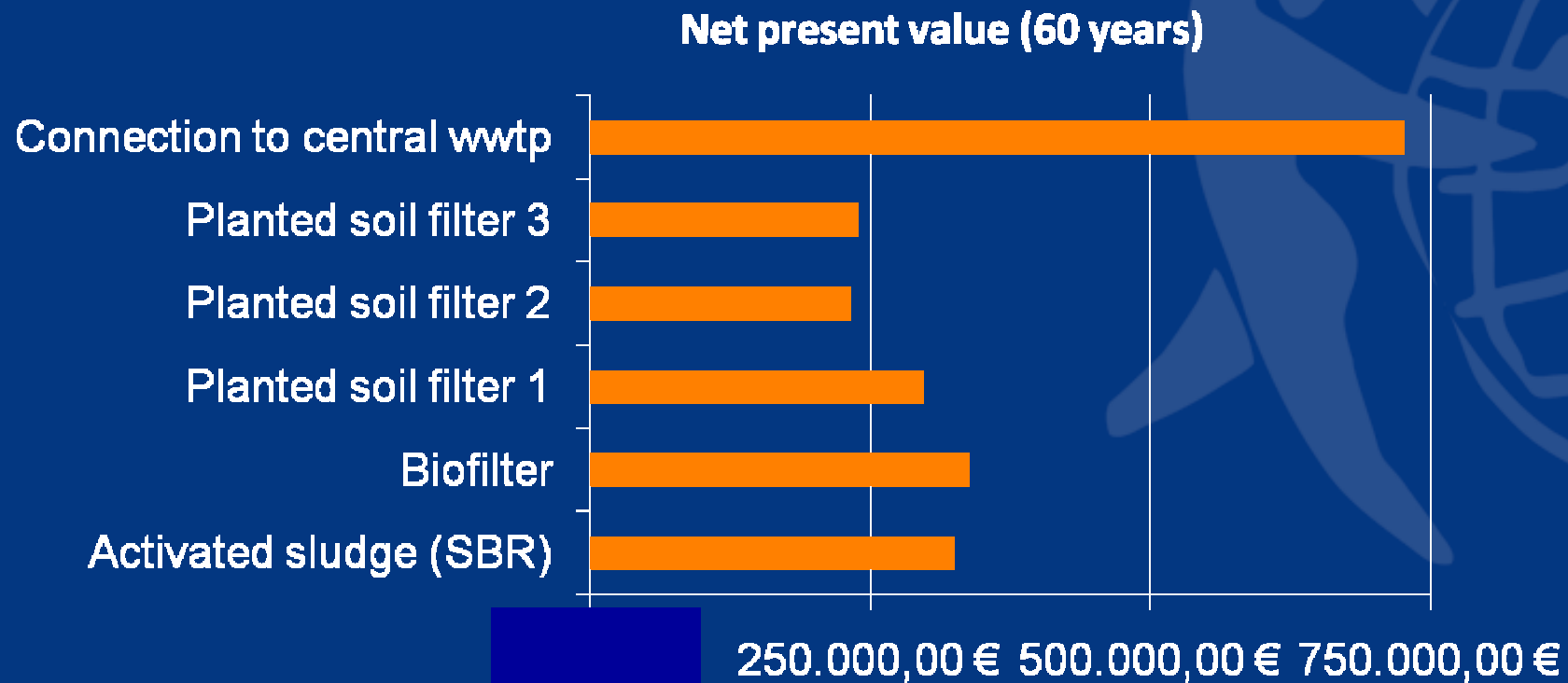
# Comparative cost benefit analysis based on discounted cash flow – Case study 1

Renovation of an existing wastewater treatment plant for 4,150 PE  
(Germany)



# Comparative cost benefit analysis based on discounted cash flow – Case study 2

Small wastewater treatment plant (200 PE) versus sewerage connection to the next big treatment plant (Germany)





# Socio-cultural aspects



# Socio-cultural and institutional aspects



Lack of public interest in sanitation

Lack of regulation to promote sustainable sanitation on national and EU level

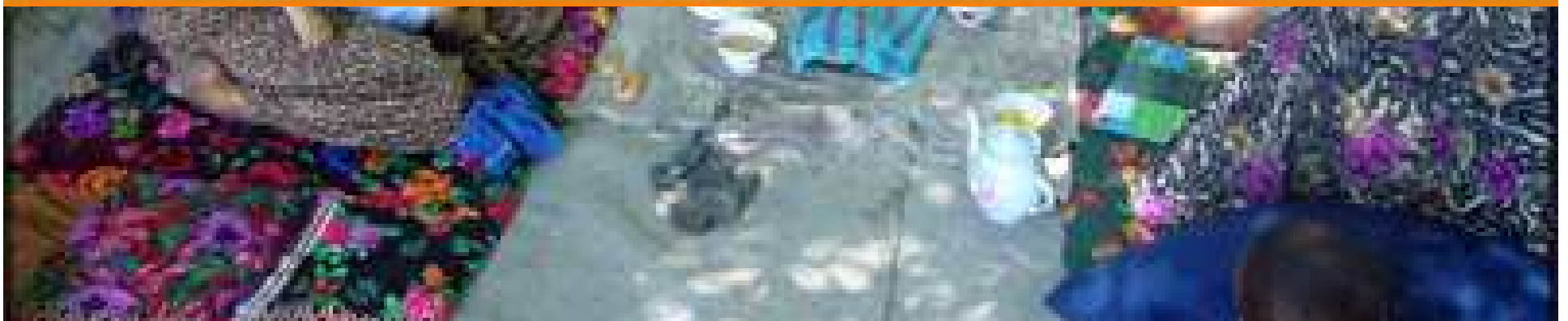
-> Both bottom up and top down approaches needed



# Decision making



# Decision making



# Recommendations

- Awareness raising to set sanitation higher on the political agenda (multi stakeholder processes, education)
- Demonstration projects needed
- National state of the art /regulations/incentives missing
- Full cost-benefit analysis to compare different scenarios





Thank you  
for your attention!

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

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