



#### Enabling water and sanitation safety planning in rural communities

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IWA Conference in Athens, Greece, September 2016

#### **WECF Network**



WECF has individual members from overseas regions: Libanon, Uganda and the USA

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#### Water supply in the rural communities



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#### **Sanitation in the rural communities**



# Present practice in the rural communities

#### WECF Experiences:



The rural population is lacking awareness on

- Access to Information e.g. data about water quality
- Influence of their activities on water quality
- Public participation

Sanitation is inadequate. Groundwater pollution due to pit latrines

Legislation exists but is not put into practice,

e.g. water protection areas.



# Water pollution in the rural communities

From Communities (point pollution): Pollution through pit latrines, wastewater pits, leakage in the sewage network, livestock holding, deposits of waste

From Agriculture (diffuse pollution) Chemical fertilizer, pesticides, liquid manure



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#### Potential of the Water Safety Planning (WSP) developed by WHO

- WSP leads to a safe drinking water management
- WSP supports information and transparency in questions about drinking water
- WSP leads to a better understanding of profitability of drinking water systems
- WSP can be used as a tool to involvement and mobilisation of civil society
- WSP can be used for educational work





Risk Assessment (Catchment to Consumer)



Risk Assessment (Catchment to Consumer)

#### WHO/IWA tools to develop and implement WSP

Target groups are especially Water supplier

Water Safety Plan manual (2008) Step-by-step risk management for drinking water suppliers 11 Modules <u>http://www.wsportal.org/ibis/water-safety-portal/eng/home</u>

Excel-based "WSP Quality Assurance" Tool + user manual (2009) http://www.who.int/water\_sanitation\_health/publications/wsp\_qa\_tool/en/index.html

Water Safety Planning for Small Community Water Supplies (2012)

Step-by-step risk management for Small Community Water Supplies

> http://www.who.int/water\_sanitation\_health/publications/2 012/water\_supplies/en/index.html



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#### **Challenges with small water supplies**

WHO/IWA guidelines to WSP are very good, but

- Are mainly focusing of organised suppliers
- The WSP Team has to consist of specialists

In many rural communities:

- Little Know-how on drinking water and sanitation and their responsibilities
- Minor personnel and financial capacities
- Minor awareness for information and involvement of citizens



#### **Benefits of WSP**

- Communities understand the ecological connection and the influence on water quality
- Communities understand their own responsibility for the water quality

## > Water supply can be improved through own action



# Adaption of the WSP to small communities through citizen science

- WSP Toolbox for schools includes: Manual with:
  - Background information
  - Suggestions for activities
  - Questionnaires for different stakeholders
  - Checklists for sanitary inspection of wells, public taps
  - Forms and examples for reporting results
- Materials for water quick tests like nitrate, pH, colour, turbidity
- Workshop for Teachers and local authorities Teachers develop a 8-months Programme





#### Water and Sanitation Safety Plan Compendium

- Sanitation is an important aspect for the health in the rural areas
- Many diseases are not water-based, but transmitted through faeces, example: parasites (STH soil trans-mitted helminths)
- According to estimations of WHO are in Romania alone 0.8 million children who suffer from STH and need to be dewormed



#### Water and Sanitation Safety Plan Compendium

- Publication with background information, instructions and Materials for teachers and NGOs
- 22 Modules (including small centralised drinking water supply systems):

downloadable in English, Romanian, Macedonian and Russian: <a href="http://www.wecf.eu/english/publications/2014/WSSP-Publication.php">http://www.wecf.eu/english/publications/2014/WSSP-Publication.php</a>





#### Safe Water and Sustainable Sanitation for All

#### WSSP-Compendium 2014 In English, Macedonian, Romanian and Russian

Part 1: How to accomplish WSSP (Water and Sanitation Safety Plan) and Instructions (8 Modules)

Part 2: Background information for developing WSSP (8 Modules)

Part 3: How to involve schools (6 Modules)





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#### **Structure of WSSP: 10 Steps**

Step 1: Start: Introducing Water and Sanitation Safety Plans
Step 2: Description of the Situation of water supply and sanitation in the community

Step 3: Identification of relevant stakeholders and regulations

Step 4: Documentation, Water and Sanitation-Mapping

Step 5: Risk assessment and water tests

Step 6: Preparation of Information and mobilization of the community

Step 7: Development of a plan of measures

Step 8: Reporting and discussion of measures

Step 9: Implementation of measures

Step 10: Monitoring, improvement and adjustment



### Monitoring and risk assessment of the drinking water supply with the pupils







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## Monitoring and risk assessment of the drinking water supply with the pupils







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#### **Activities and results**

- Testing the water quality (Nitrate, Turbidity, pH)
- Risk Analyses of the quality of the water sources and surroundings
- Cooperation with Authorities and participants
- Informing of the population
- Awareness raising
- Concrete improvements/ planning and actions



#### **More results**

- Local authorities, citizens were informed about nitrate-measurements
- Citizens were informed about water quality, they came with water samples to the pupils"







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# Results of the WSSP for the improvement of safety of drinking water resources

Identified main problems

- Uncontrolled deposition of urban waste
- Lack of Wastewater treatment plants
- Leaking distribution network
- Inadequate sanitation

Recommendations which lead to an improved water protection as wall as save drinking water quality were formulated:

On the level of households On the level of the village/community On national level



#### Examples of outcome: Implementation of a new School toilet in Moldova UN "Water for Life - Best Practice Award"

Pupils became active and found a sponsor for the construction of a new school toilet (Ecosan)







#### Conclusion

- The Compendium is a helpful guideline for small communities and schools to develop and implement concrete action for improved water and sanitation
- The understanding for environmental linkages rises
- Civil society will be strengthened
- Improvement of the communication and the understanding between schools/population and the authorities
- WSSP is a suitable method for a extensive and practical environmental education that can inspire and mobilise schools (WSSP Program becomes a part of the school curriculum)



#### Thanks for your attention!



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