

# Safe and Efficient Management of Water Supply and Sanitation/ Work Area 5

Lieke Friederichs  
Netherlands/RIVM

Jelena Vicanovic  
Bosnia & Herzegovina/PoWH Focal Point

Jelka Appelman/  
Netherlands/MinI&W

Working Group on Water and Health  
Geneva, 3-4 April 2019

Protocol on Water and Health



# 1. Main achievements since 2017

- \* **Symposium on WSP/SSP and Extreme Weather Events (04-2017, Bilthoven):**
  - \* Report: <https://www.rivm.nl/bibliotheek/rapporten/2018-0169.pdf>
  - \* Presentations: <https://www.iwccconferences.com/wssp-and-extreme-weather/>
- \* **In-country capacity building and support to WSP policy adoption in five countries**
- \* **Practical implementation support of WSP in rural settings**
  - \* Tajikistan supported by Finland
- \* **Workshop on sanitation (Bonn, 02-2019)**
- \* **Sanitation scoping study** – in preparation, expected in 2019

## 2. Conclusion of the sanitation workshop

- \* Sanitation is broad and highly relevant on the international agenda (SDG-Agenda 2030, Ostrava)
- \* 36 million people still lack access to basic sanitation services and 328,000 practice open defecation (WHO, 2017).
- \* The workshop on sanitation was aimed at systematically reviewing the sanitation situation from both health and environmental perspectives covering the entire pan-European region.
- \* 54 representatives from 28 countries as well as technical experts and representatives of international and non-governmental organizations . **Common challenges** identified including:
  - i. Gaps in the use of safely managed services,
  - ii. Access in rural areas and sanitation in specific settings, such as schools and health care facilities.
  - iii. Preventing water-related diseases;
  - iv. Soil-transmitted helminths
  - v. Anti-microbial resistance in the environment and health care facilities
  - vi. Reducing environmental impacts, chemicals and emerging contaminants

# Conclusion of the sanitation workshop (ctn.)

- vii. **Financing sanitation**; Aging infrastructure vs investment needs, public vs private ownership of sanitation systems
- viii. Building **climate resilient sanitation** services; Climate change requires rethinking of design and operation of sanitation systems (floods, drought, torrential rains)
- ix. Addressing **water scarcity through wastewater reuse**; Opportunities (nutrients, food), Risk assessment, Issue of direct/indirect potable reuse
- x. **Several tools available**, inter alia:
  - \* Faecal flows (SFD)
  - \* Risk management (SSP)
  - \* Technology selection tools (EAWAG Compendium & others)

# Conclusion of the sanitation workshop (ctn.)

- \* Need to **raise political awareness on sanitation, emphasizing its cross-cutting character.**
- \* Need for **improving the evidence base** on the sanitation situation in the pan-European region, linked to the need for scaling up risk-based management approaches .
- \* **Use Protocol as convening platform and forum** for discussion and exchange in the pan-European region
- \* **Address sanitation** related achievements and gaps in the **national summary reports** (due in April 2019)
- \* **Set targets** on sanitation

# 3. Progress on the scoping study

## 1. Process and planning

- \* Sanitation scoping study is prepared by RIVM (NL) and Norwegian University of Life Sciences
- \* Draft report was presented at the workshop in Bonn and submitted to the Working Group
- \* Summer 2019 a final draft will be submitted to the secretariat and co-leads
- \* Final report will be submitted to the MoP
- \* Expert meeting to 2020: On basis of the final draft of the scoping study and the outcome the set-up of an expert meeting in 2020 will be discussed by a core-team (i.a. the secretariat and co-leads)

## 2. Draft key-messages of the scoping study (examples for legislation)

	Access to sanitation	Collection & transport	Treatment & disposal	Reuse
Legislation	Gap between broad policy plans and implementation	Systemic assessments (SFD/LCA) needed to inform CAPEX/OPEX	Topics of AMR and decentralized systems not yet sufficiently in policy plans	Awareness needed with regard to sanitation reuse innovations; e.g. energy saving, resource recovery

- Next to *legislation*, other messages are related to *status* and *impact*; supported by white and grey literature; framing of messages to be activating/facilitating follow-up work on sanitation in the 2020-2022 and 2023-2025 Programmes of Work.

# 3. Progress on the scoping study (ctn.)

## 3. Draft subregional priorities (in prep.)

Sub-regions	Countries	Access to sanitation	Collection & transport	Treatment & disposal	Reuse
<b>Southern Europe</b>	(i) Albania, Andorra, Bosnia and Herzegovina, Croatia, Montenegro, Serbia, Slovenia, Macedonia (ii) Greece, Israel, Cyprus, Italy, Malta, Portugal, San Marino, Spain, Turkey	<b>I</b> Tackle lack of access to basic sanitation and open defecation (i) Improve access to safely managed facilities in rural areas (ii)	<b>III</b> Practice infrastructure monitoring, reduce leakages (i) Develop climate-resilient infrastructure (ii)	<b>II</b> Reduce discharges of untreated wastewater and sludge (i) Mainstream decentralized WWT systems in rural areas and introduce treatment requirements (ii)	<b>IV</b> Investigate opportunities for reuse and reduce unplanned reuse (i) Reuse regulations and research on emerging risks (ii)
<b>Northern Europe</b>	Denmark, Estonia, Finland, Iceland, Ireland, Latvia, Lithuania, Norway, Sweden, United Kingdom		<b>I</b> Develop climate-resilient infrastructure, flood early warning systems, reduce leakages and overflows	<b>II</b> Introduce requirements on treatment in small decentralized systems, complete transition to advanced/tertiary treatment (emerging contaminants, both chemical and microbial)	<b>III</b> Regulations on sludge management practices, reuse and recovery of valuable elements, research on emerging risks
<b>Western Europe</b>	Austria, Belgium, France, Germany, Luxembourg, Monaco, Netherlands, Switzerland				
<b>Eastern Europe</b>	Belarus, Bulgaria, Czechia, Hungary, Poland, Republic of Moldova, Romania, Russian Federation, Slovakia, Ukraine	<b>I</b> Tackle lack of access to basic sanitation in rural areas, develop/revise regulations	<b>III</b> Decentralization and prioritization of investments in centralized infrastructure (rehabilitation or replacement of the old pipes in sewerage system, managing obstacles in the sewer system)	<b>II</b> Reduce discharges of untreated/inadequately-treated wastewater and sludge. Mainstream decentralized WWT & eco-sanitation systems in rural areas	<b>IV</b> Investigate opportunities for reuse and reduce unplanned reuse
<b>Central Asia</b>	Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan	<b>I</b> Ensure adequate services in public infrastructure, especially in rural areas. Tackle lack of access to basic sanitation and open defecation in rural areas, develop/revise regulations			
<b>Caucasus</b>	Armenia, Azerbaijan, Georgia				

## 4. Support to Water Safety Plan uptake

Country	Activity
<b>Croatia</b> (Sep 2018)	Training of trainers to support national rollout of new legislative requirements
<b>Italy</b> (Oct 2018)	
<b>Lithuania</b> (Aug 2018)	Broad sensitization and capacity building on WSP principles
<b>Serbia</b> (Aug 2018)	Support to the development of a national roadmap towards long-term uptake of WSPs
<b>Tajikistan</b> (2017-2018)	<ul style="list-style-type: none"><li>• Broad WSP capacity building</li><li>• Practical implementation with focus on rural areas</li><li>• Change in legislation to adopt WSPs supported by national WSP policy roadmap</li></ul>

# 5. Plans for future work in this area

## 1. Scaling-up the adoption of water and sanitation safety plans

- \* **Capacity building:** Continued support for uptake in national policies and legislation and development of country road maps (irt WA2, WA4, WA7) including practical implementation support for WSP and SSP, using tools and partnerships developed under the PoWH
- \* **Pilot projects:** Support conceptual development and the implementation of pilot projects on integrated water and sanitation safety plans with a focus on small-scale water supply and sanitation systems (irt WA4).

WSP Modules	WSP Steps	SSP steps	SSP Modules
<b>1. Preparation</b>	1 Assemble the team	<b>1. Prepare for Sanitation Safety planning</b>	1.1 Establish priority areas or activities
			1.2 Set objectives
			1.3 Define the system boundary and lead organization
<b>2. System Assesment</b>	2 Describe the supply system	<b>2. Describe the sanitation system</b>	1.4 Assemble the team
	3 Identify hazards and hazardous events		2.1 Map the system
	4 Determine and validate control measures, reassess and prioritize the risks		2.2 Characterize the waste fraction
	5 Develop, implement and maintain an upgrade plan		2.3 Identify potential exposure groups
			2.4 Gather compliance and contextual information
<b>3. Operational monitoring</b>	6 Define monitoring of the control measures	<b>3. Identify hazardous events, assess existing control measures and exposure risks</b>	2.5 Validate the system description
			3.1 Identify hazard and hazardous events
			3.2 Refine exposure groups and exposure routes
			3.3 Identify and assess existing control measures
			3.4 Assess and prioritize the exposure risk

*WSP and SSP compared (2017 Bilthoven symposium report)*

# 5. Plans for future work in this area (ctn.)

## 2. Focus policy attention and technical efforts on sanitation

- \* **Dissemination and communication:** at national, sub-regional and regional levels the **findings of the scoping study on sanitation** will be disseminated with regard to challenges and practices in sanitation management throughout the pan-European region, including through a policy brief for decision makers;
- \* **Support of sanitation policy development at country level** related to effective regulations, sustainable technical interventions and financial approaches,
- \* **Further development of policy and/or technical guidance and practical tools** under the Protocol, based on the scoping study results and outcomes of the 2019 regional workshop on safe and efficient management of sanitation under the leadership of an expert group.

## 3. Focus policy attention on increasing climate resilience

- \* **Develop capacity and promote good practices** on building climate resilience of drinking water supply and sanitation services, including preparing for and responding to extreme weather events by organizing a regional workshop (in coordination with programme areas 4 and 7).