

# Small-scale water supplies and sanitation: achievements and future work

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Working Group on Water and  
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Protocol on Water and Health



#ProtocolWaterHealth

# Main achievements since the MOP 2022

iWSSP project  
in Serbia



Project on ensuring safely  
managed on-site sanitation  
systems (SMOSS) –pilot



## Monitoring safely managed on-site sanitation (SMOSS)

Synthesis of lessons from phase 1 pilots  
and recommendations for phase 2 pilots

December 2021 - FINAL



# Project on integration of water and sanitation safety planning

## Joint undertaking with programme area 5

### Goal

- To establish an advanced safe water and sanitation service provision in small systems in rural areas in Serbia
- To assess and demonstrate the feasibility of integrating water and sanitation safety planning through pilots at selected sites

### Partners

- Institute of Public Health of Serbia
- National Institute for Public Health and the Environment, The Netherlands

### Funding

- German Federal Environment Ministry's Advisory Assistance Programme (AAP) for environmental protection in the countries of Central and Eastern Europe, the Caucasus and Central Asia, and other countries neighboring the European Union
- Supervised by the German Environment Agency (UBA)

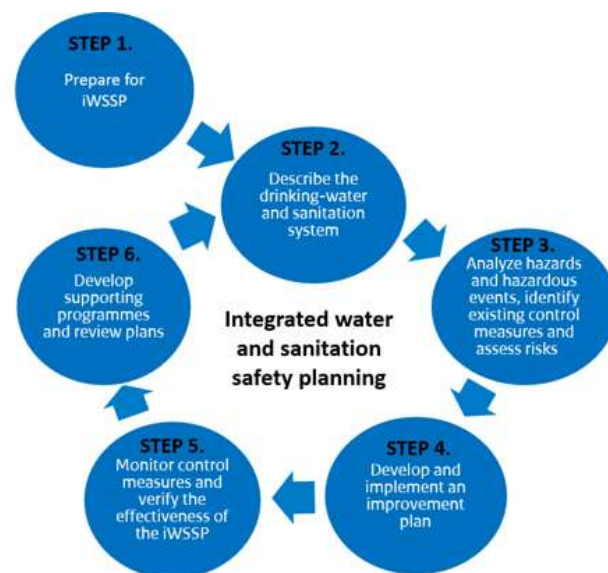


# Templates for iW SSP

iW SSP templates (templates with separate parts on drinking-water and sanitation shown in darker grey)

iW SSP Step	Template	Objective/context
Step 1	Team list	Provide details of team members
	Objectives	Provide a selection of possible objectives
	Stakeholders	Document possible stakeholders, their roles, and approaches to involve them
Step 2	Mapping example	Map the drinking-water and sanitation systems
	Narrative system description	Identify system characteristics
Step 3	List of hazardous events	Detailed list of possible hazardous events
	Control measures	Document control measures and their validation
	Risk assessment definitions	Aligned definitions for likelihood, severity, and risk
Step 4	Improvement plan	Document suggested improvements, responsibilities, resources, timelines, and status
	Risk table	Document risk assessment, control measures, and improvements details (for steps 3 and 4)
Step 5	Operational monitoring plan	Document details on operational monitoring and corrective actions
	Verification monitoring plan	Document verification details
Step 6	Supporting programmes	Document supporting activities
	Operations and maintenance	Provide instructions for operational and maintenance tasks
	Emergency response	Document emergency response actions and communication

Six steps of integrated water and sanitation safety planning



Examples of templates

	Description drinking-water	Description sanitation
Major impact	Major water quality impact; illness in community associated with the water supply; large number of complaints; significant level of customer concern; significant breach of regulatory requirement.	Hazard or hazardous event potentially resulting in serious illness or injury, or even loss of life (e.g. severe poisoning, loss of extremities, malaria, schistosomiasis, chronic diarrhoea, chronic respiratory problems, neurological disorders); and / or may lead to legal complaints and concern and/or major regulatory non-compliance
Moderate impact	Minor water quality impact (e.g. not health related, aesthetic impact) for a large percentage of customers; clear rise in complaints; community annoyance; minor breach of regulatory requirement.	Hazard or hazardous event potentially resulting in self-limited health effects or minor illness (e.g. acute diarrhoea, vomiting, minor trauma) and/or moderate regulatory non-compliance
No/minor impact	Minor or negligible water quality impact (e.g. not health related, aesthetic impact) for a small percentage of customers; some manageable disruptions to operation; rise in complaints not significant.	Hazard or hazardous event resulting in no or minor health effects (e.g. temporary symptoms like irritation, nausea, headache) and/or minor regulatory non-compliance

# Experiences and lessons learned

- ✓ The integrated approach resulted in increased awareness of vulnerabilities, knowledge and understanding of the drinking-water supply and sanitation system
- ✓ Collecting detailed information for sanitation systems was challenging, especially in case of on-site sanitation
- ✓ No combined drinking-water supply and sanitation system map, but separate maps were jointly examined
- ✓ Key experts (facilitators) play a crucial role in implementing WSSP, e.g. in using templates, identifying hazardous events and risk assessment
- ✓ The communities were triggered to initiate some immediate improvements to prevent hazardous events
- ✓ Peer learning visits between the WSSP teams and local communities supported the implementation



# Publication

IW A: Journal of  
Water and Health

Open access

Link:

<https://iwaponline.com/jwh/article/21/12/1772/98521/Experiences-from-integrating-water-and-sanitation>

The screenshot shows the journal article page for "Experiences from integrating water and sanitation safety planning in small systems in rural Serbia". The page includes the journal title "Journal of Water & Health", the volume and issue information "Volume 21, Issue 12", and the date "1 December 2023". The article title is prominently displayed, along with the authors' names: Harold van den Berg, Bettina Rickert, Jerome Lock-Wah-Hoon, Dragana Jovanovic, Sanja Bijelovic, Snezana Gigorjevic, Vesna Karadzic, Milena Vasic, Ana Maria de Roda Husman. The page also features a "Check for updates" button, a "Submit to this Journal" button, and a list of metrics including Impact Factor (2.3), CiteScore (3.5), and Article Downloads (540,124). The abstract is visible, discussing the WHO's risk management approach and the challenges of implementing it in small-scale systems. The page also includes a "Cited by" section and a "We recommend" section with related articles.

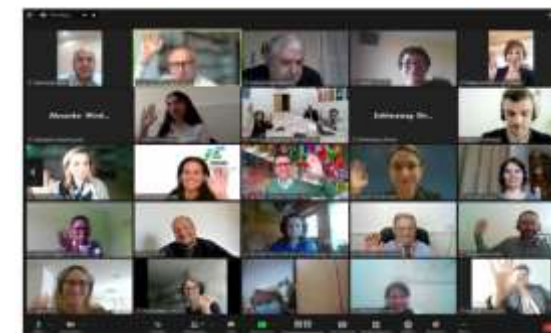


# Expert consultation on on-site sanitation in the pan-European region

ON-site sanitation



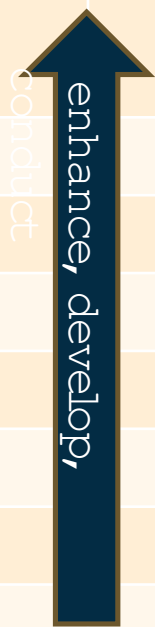
**Joint undertaking with programme area 5**  
 Co-hosted by the Netherlands and Serbia  
 (5-7 October 2021 in virtual format)



Strong emphasis on OSS, promoting exchange and assessing the situation in the pan-European region and identifying opportunities to improve it



	Challenges	Way forward
Limited, insufficient, lack	Prevalent, but not a priority	Discussions among stakeholders, national targets under the PWH
	Data gap	Registration, mapping and reporting
	Legal framework, standards	Developing regulations, technology selection
	Monitoring	Risk based monitoring, inspection planning
	Capacities at local level	Capacity building
	Access to information	Engaging with other networks
	Professional support	Trainings
	Financing	Grant schemes



# Safely Managed On-Site Sanitation (SMOSS)

- Improved facilities
- Not shared
- Containment
- Either
  - Emptied and treated off-site
  - Not emptied, treated in situ





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## Phase 1: 2020-2022



## Phase 2: 2023+



# SMOSS key learnings

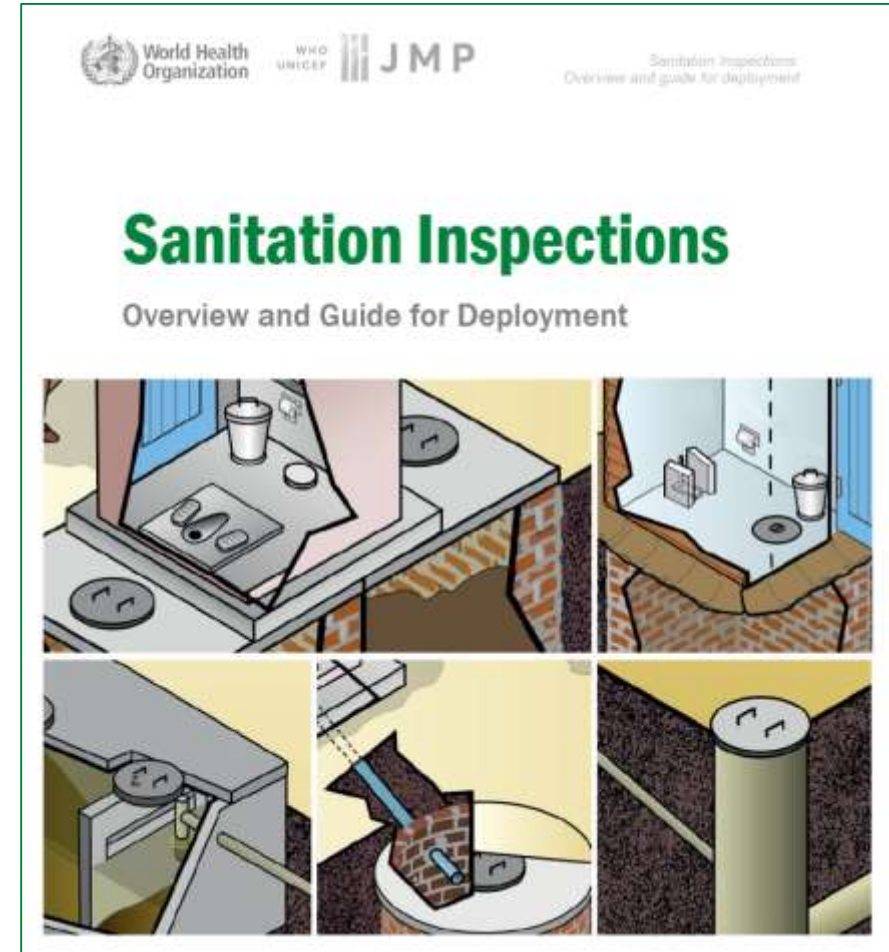
- Many data gaps
- Inspections can reveal inadequate containment, leakage
- Need for institutional clarity: what regulations are there, who has mandate to inspect and enforce



<https://washdata.org/monitoring/sanitation/safely-managed-on-site-sanitation>

# Sanitation inspections

- Supplement to Guidelines on Sanitation and Health
- Simplified risk identification for onsite sanitation facilities, including corrective actions
- Supported by sanitation system fact sheets (applicability, design, O&M, measures to protect public health)
- Different uses :
  - Monitor compliance with regulatory requirements
  - Risk assessment to inform investments and policies
  - Project monitoring and evaluation





Thank you!

[info@washdata.org](mailto:info@washdata.org)

# Project on ensuring safely managed on-site sanitation systems (SMOSS) : Serbia (2020-2021)

**About the project:** Global WHO/UNICEF project on ensuring safely managed on-site sanitation systems (SMOSS)

**Aim:** To bring together selected national governments and international partners to develop and test indicators and data collection methods in urban and rural locations in Africa, Asia, Europe, Middle East, and Latin America

**Serbia** has been selected country from the WHO European Region

**Aim:** To develop harmonized methods and tools for the collection of comparable data on the safe management of excreta from on-site sanitation to support national and global monitoring of progress towards SDG targets 6.2 and 6.3



**What data has/will be collected by pilots?**

	Access	Containment	Emptying	Transport	Treatment
<b>Serbia</b>					
Draft assessment Serbia for review					
Household surveys / interview	✓	✓	✓	TBC if assess buried in-situ	
Sanitary inspections (household)	✓	✓			
Spot checks / Service chain inspections					
Service provider and local government surveys			✓	✓	✓
Administrative and secondary data, log books					
Service provider and government interviews and focus group discussions (formative research but not routine monitoring)					

# SMOSS opportunities

## Assessing the situation of the management of SMOSS at the national and local levels

- Survey on local self-government – 158 LGUs (50% response rate)
- Survey on service providers – 154 (50% response rate)
- Key informant interviews
- Household survey (1055), rural schools (255) and HCFs (250)

## Aligning global and national monitoring objectives

- **Establishing the monitoring system for OSS:** Identified possible key stakeholders for National Statistical Office, local self-government units/local authorities, and SCTM and IPHs
- **Incorporating in existing monitoring schemes:** Census (households), dedicated national statistical surveys, survey on public utility companies on emptying, transport, and treatment, monitoring of WASH in HCFs and schools – the network of IPHs

## Defining core indicators and expanded indicators

- Developing the Tools for data collection across the chain
- Scaling up tools for national monitoring



# SMOSS challenges



Image: the sanitation chain

Source: <https://www.ircwash.org/news/what-does-sanitation-systems-strengthening-mean>

National and local policy and regulation: monitoring of SMOSS is not addressed and is not a priority


Roles and responsibilities for the monitoring of SMOSS are not defined

Financing: the budget line for the monitoring of SMOSS is not defined

Low awareness of national authorities, LGUs and service providers for the need to establish the monitoring system for SMOSS

# Future activities for 2024-2025

## OBJECTIVES

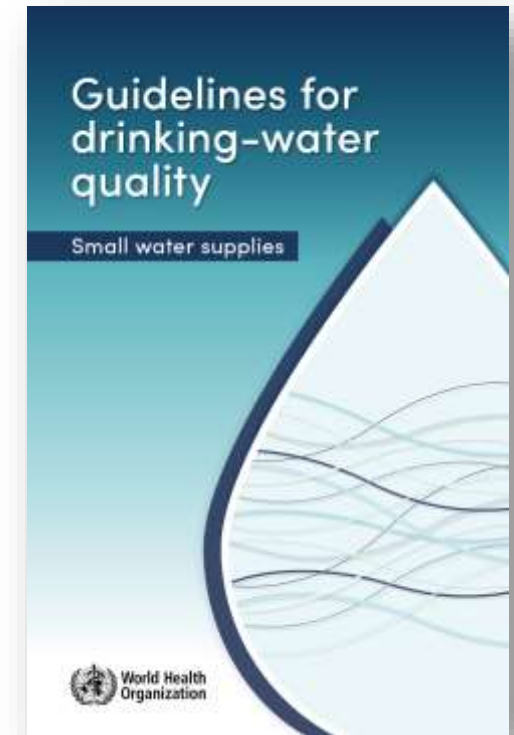
- Increase policy attention to small-scale water supply and sanitation systems
  - Support policy uptake and implementation of good practice-based approaches in the regulation, management and surveillance of small-scale water supply and sanitation at national and local levels
  - Promote improving access to safe, sustainable and equitable drinking water and sanitation services in rural areas, small towns and peri-urban areas
- 
- A decorative illustration at the bottom of the slide shows various water and sanitation infrastructure elements in a light blue, semi-transparent style. It includes a shower head, a water tap with a drop of water, a water bottle, and a hand being washed under a running faucet.



# Future activities for 2024-2025

## Supporting an enabling environment for small-scale systems

- Organize workshop before the MOP in 2025 on disseminating the WHO Guidelines:
  - Disseminate good practices in **regulating small supplies**
  - Support **proactively managing risks** through water safety planning and sanitary inspections



<https://www.who.int/publications/i/item/9789240088740>

# Future activities for 2024-2025

## Finalize publication on small-scale water supplies and sanitation country activities and best practices

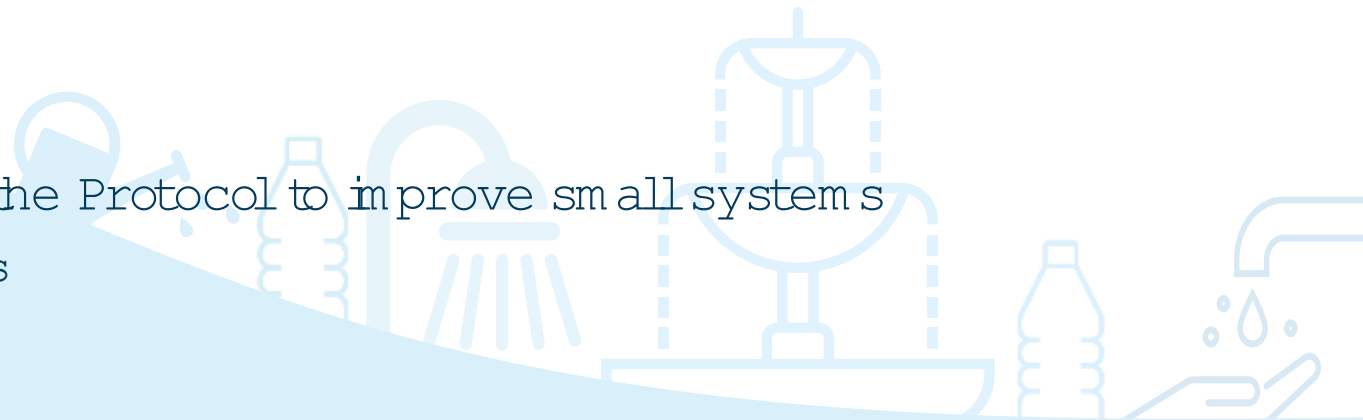
- Small systems as a priority under the Protocol
- Methodology and data reviewed -online survey, expert interviews
- Results:

Access to and quality of drinking-water and sanitation services in rural areas:

- Access to services
- Drinking-water quality
- Data summary

Targets set and other activities under the Protocol to improve small systems

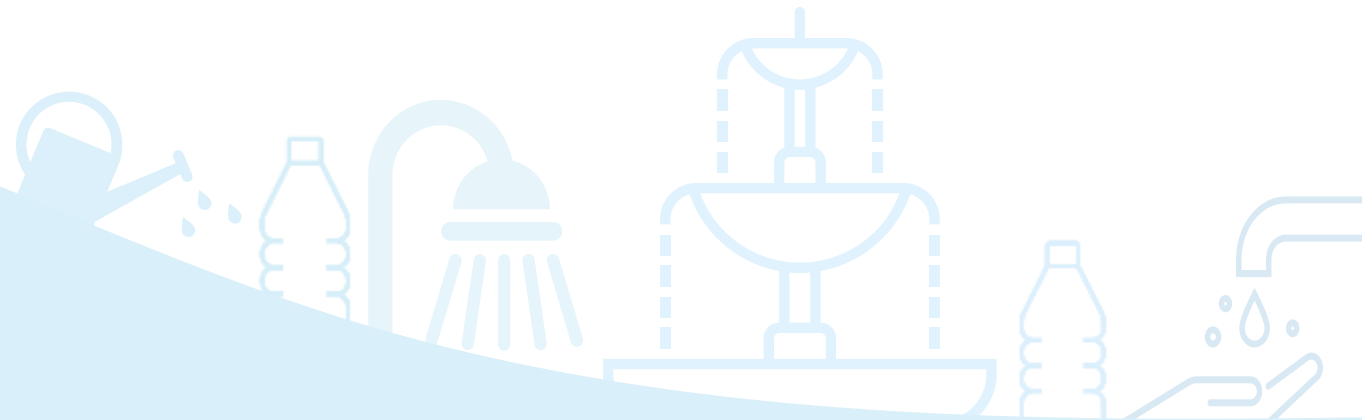
- Focus of targets and other activities
- Challenges and success factors
- Country best practice examples



# Future activities for 2024-2025

## **Field projects on improved planning, operation and management of SSWSS, particularly on iWSSP in rural areas**

- Promotion and dissemination of outcomes of iWSSP project in Serbia
- Proposal for further piloting (e.g. Bosnia Herzegovina, Georgia, Republic of Moldova) to develop approach and tools for small systems to be applied in a broader context



# Future activities for 2024-2025

## **Put more focus on small scale sanitation**

- Produce a good practice/case studies booklet on onsite sanitation for the next MOP:
  - Good practices in regulation, management and surveillance of small-scale sanitation systems, particularly on-site systems
  - Containing supportive case studies from across the pan-European region



# Thank you for your attention!

