

Small-scale water supplies and sanitation

RADWQ in Serbia: the main findings

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Fourth session of the Meeting of the Parties
Geneva, 14-16 November 2016



National consultation on SSWSS in Serbia

- * **The main outcome** of the National consultation in Serbia (December, 2014) was the need for **closing the knowledge gaps** on SWS for **policy making and actions for the improvement**.
- * **Nation-wide rapid assessment**
 - Technically supported by WHO/Europe
 - Financially supported by UNDA project
 - In-kind contribution by Serbia network of IPHs



Rural water supply in Serbia

* Piped water supply systems:

- Urban water supply systems (Public Utility)
- Rural water supply systems managed by Public Utility
- Non-authorized rural water supply systems,

* Public standpipes, wells, capped springs

* Individual wells

- * 30 water-borne outbreaks (10 years period), affecting 1,398 individuals mostly attributed to small and individual water supplies in rural areas – **potential epidemiological risk**

Identification of challenges and knowledge gaps on water supply in rural areas

- * GLAAS (supported by WHO/Europe)
- * Protocol on Water and Health:
 - ✓ Baseline analysis
 - ✓ National consultation on SSWSS (supported by WHO/Europe and UNECE)



Knowledge gaps

Identified challenges and knowledge gaps:

- * Existence of national legal framework in water domain in Serbia
- * Level of implementation is unsatisfactory, especially in rural areas
- * Enforcement of surveillance of drinking-water quality and sanitary conditions is weak in rural areas

Unavailable data on:

- * Number of people served by SSWS and accurate number of SSWS
- * Coverage by water disinfection and regular monitoring in SSWS
- * Sanitary conditions in SSWS
- * Poor data quality on drinking-water safety
- * Unregulated the ownership issues

RADWQ in Serbia: Closing the knowledge gap

National targets and target dates of Serbia under the Protocol (2015)

1. Drinking water quality

Protocol subject (article 6)	Defined target	Target date	Responsible Ministry/ Institution	Target indicator
6.2 a The quality of the drinking water supplied taking into account the guideline for drinking water quality of the World Health Organization	To adopt Rulebook on health safety of drinking water (drinking water quality), drafted and harmonized with EU Directive (98/83/EC)	2016	Ministry of Health, Institute of Public Health of Serbia with the network of regional IPHs	The Rulebook adopted
	To improve collection of drinking water quality monitoring data through development of an electronic information system.	2015		An electronic information system developed
	To improve collection of drinking water quality monitoring data in emergency situation through development of an electronic information system.	2015		An electronic information system for emergency situation developed
	To conduct baseline analysis of drinking water supply systems in rural areas with respect to drinking water quality and sanitary surveillance.	2016		The baseline analysis conducted

RADWQ in Serbia

The objectives :

- * **Acquire** a nationally representative picture of the situation of small scale water supply systems in rural areas
- * **Support** the implementation of the national targets
- * **Develop baseline analysis** of the drinking water quality and prevailing sanitary conditions of small-scale water supply systems in rural Serbia
- * **Inform programming** of improvement interventions and further policy development in the water and health domain.



RADWQ in Serbia

Piped systems (PS)
serve more than 20
people (or 5
households)

**Individual supplies
(IS)** serve less than
5 households, piped
or non/piped,
shallow wells or
boreholes

Total sample size:

n=1,344

PS: 1,168 sample taken

PS: 1,136 inspected

IS: 176



WHO
methodology for
rapid assessment

Field work: april–
august 2016.

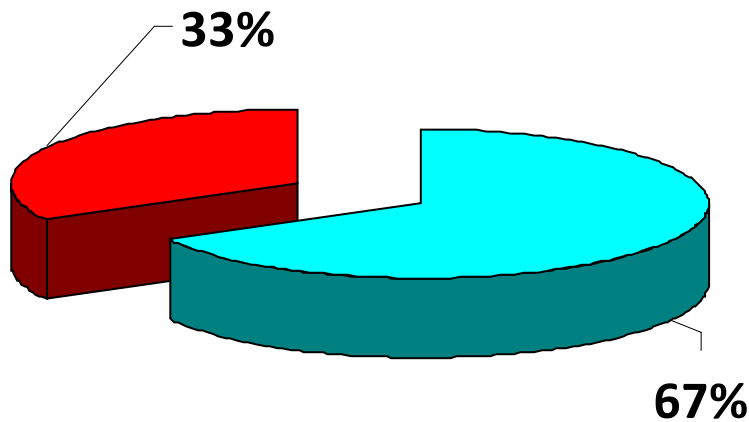
3 Broad Areas

26 districts,
29 field teams,
whole network
of IPHs

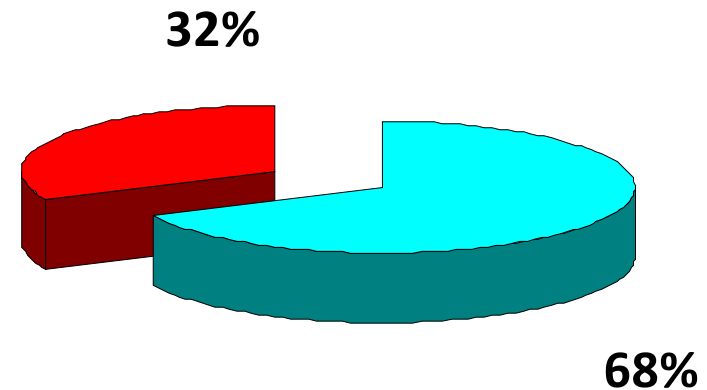
Main results

E.coli compliance with national standard

Piped systems



Individual supplies



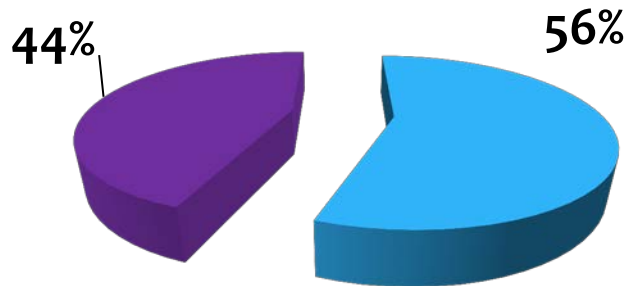
■ Compliance ■ Non-compliance

■ Compliance ■ Non-compliance

Main results

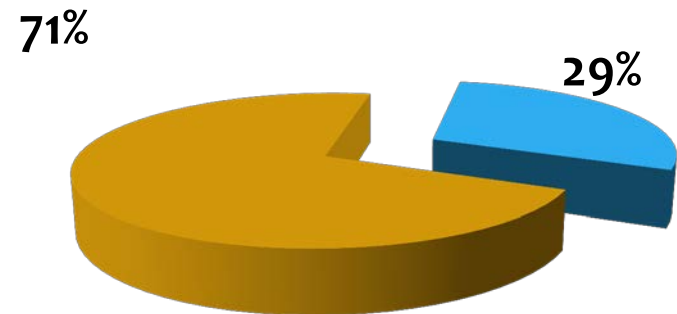
Compliance with physico-chemical parameters

Piped systems



■ Non-compliance
■ Compliance

Individual supplies



■ Non-compliance
■ Compliance

Main results

Urgency for action

30% of all types of water sources for **piped systems** require **high or urgent action** for improvements

41% of all types of water sources for **individual supplies** required **high or urgent action** for improvements

Water chlorination is of great concern: **only 29%** of piped systems **regularly chlorinate** the drinking-water

Only 12 % of inspected **piped systems** are **managed** by **legal entities** (Public Utility) with **resolved ownership** (80% in Vojvodina and 2-3% West and East Serbia)

E.coli count (1/100) ml	Sanitary inspection score			
	0-2	3-5	6-8	9-10
<1	28.8 %			
1-10		42.0 %		
11-100			23.2 %	
>100				6.3 %

Main results

Sanitary risks

Sanitary risks:

- * Unfenced sources
- * Allowing access of animals
- * Pollution sources were too close to water sources
- * Unsatisfactory technical conditions
- * Inadequate construction of the wells
- * Double connections
- * The largest part of the network has not been replaced during the last 10 years
- * Managing by unqualified personnel (70%)



Key recommendations and way forward

- * To **address WSP concept** in national regulations, as well as for **individual supplies**
- * To **develop national and local action plans** for the improvement of the situation on SWS, including **protection of sources**, sanitary inspection, technical improvements and increased awareness-raising activities for the population
- * To **present and disseminate results of RADWQ** at district level to **local self-government** by local IPHs, as well as at **sub-regional level**
- * To **enforce** implementation of existing regulation, in order to **resolve the ownership** issue of SSWSS
- * To complement baseline analysis and **inform revision of national Protocol's targets** related to SSWSS



THANK YOU!!!

