



# Progress in ratification of Protocol on Water and Health and preparation activities on setting Targets under the Protocol in Serbia

**Ministry of Health**, Tanja Knezevic M.D.PhD  
**Ministry of Environment, Mining and Spatial  
Planning**, Biljana Filipovic

# RATIFICATION PROCESS

➤ The Convention on the Protection and Use of Transboundary Watercourses and International Lakes, Serbia ratified in May **2010.**

➤ Responsible Ministry for ratification of Protocol on Water and Health is the Ministry of Health

(MoH provided: official translation of the Protocol in Serbian language; justification of the Draft Law on Protocol on Water and Health; official letters of agreement from the responsible Ministries)



# STATUS OF RATIFICATION

- ▶ Serbia is in the final stage of ratification
- ▶ All responsible Ministries of the Government gave an agreement for the final Draft Law on adoption
- ▶ The Parliament approval of the Draft Law is expected until the end of 2012.

# UNECE-WHO Mission to Serbia

- ▶ The mission presented an opportunity to discuss and explore possibilities how to facilitate the ratification of the Protocol on Water and Health by Serbia, along with the improvement of the involvement of Serbia in the ENHIS system.

## Participants:

### Members of the Mission:

- ▶ Dr. Enzo Funari (Chair of the Task Force on Water-related Disease Surveillance, Institute Superiore, Rome, Italy);
- ▶ Dr Andrey Egorov, Manager (ENHIS) WHO and
- ▶ Ms. Franziska Hirsch (UNECE)

Members of the high level ministerial representatives (providing info on Protocol and Law)



# PROMOTION OF THE PROTOCOL

- ▶ Main goal: To promote a deeper understanding of the relationship between water management, water supply and sanitation and public health, to ensure that stakeholders and the general public are kept informed.
- Topics included: the right to water, water and climate change, sustainable development, integrated water management, access to drinking water and sanitation, water related diseases, public participation, implementation of water safety plans in small scale water supplies, etc.

# PROMOTION OF THE PROTOCOL

- Responsible Ministries organized workshops, conferences and meetings on national, regional and local level to well introduce professionals, public health professionals, stakeholders, authorities, policymakers, NGO, media, general public etc. about objective and aims of the Protocol and importance of it ratification of Protocol.
- The general public continually was informed about the Protocol through the media (TV, radio, newspapers) and web site.



# Activities in the environmental sector on the promotion of the Protocol

- ▶ Several workshops, in different Municipalities (Kraljevo, Aleksandrovac, Aleksinac) have been held for this purpose, and many more are planned.
- ▶ Main goal: To promote a deeper understanding of the relationship between water and human health, to ensure that stakeholders and the general public are kept informed, examples of good practices ensuring equitable access to water and sanitation in different Municipalities.

**Topics included: the right to water, water and climate change, public participation, implementation of water safety plans in small scale water supplies and future implementation of the Protocol.**

# Promotion workshops in Serbia...

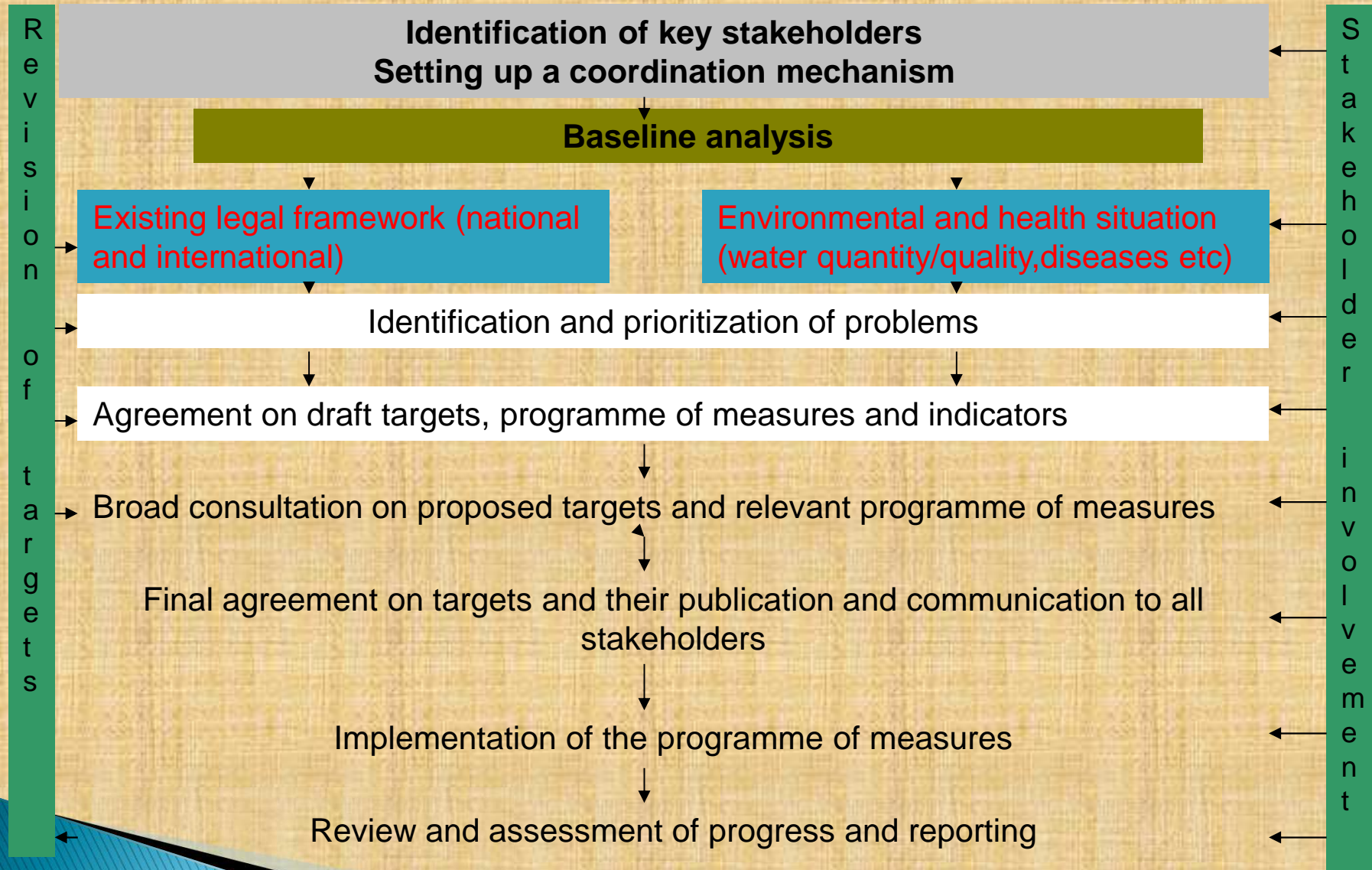




# Municipality of Kragujevac



# OVERALL FRAMEWORK FOR THE PROCESS OF SETTING TARGETS





# BASELINE ANALYSES

The baseline analyses is the first substantive technical step under the target setting and covered the:

## Existing legal framework

Baseline of existing legislation  
(National and international )

etc.

## Environmental and health situation

Water quality, water quantity  
Water management,  
Water related disease  
Access to drinking water  
Access to sanitation  
Quality of water using for bathing

## BASELINE ANALYSES OF LEGISLATION

*The Republic of Serbia* has drawn up and adopted a number of legislative acts, regulations and others arrangements on health protection, environmental protection, water management, provisions on drinking water, wastewater treatment, reduction of outbreaks of water related diseases and other issues that fall under the Protocol.

- For establishing targets, targets data and a programme of measures we are analyzing the provisional legislation as well as policies, strategies and national programme on related issues.



# EXISTING LEGAL FRAMEWORK, National and International)

- ▶ National Strategy for Sustainable Development ( Official Gazette of RS No. 57/08 );
- ▶ National Strategy for Public Health Official Gazette of RS No. 72/09
- ▶ National Environmental Protection Program (Official Gazette of RS No. 12/10);
- ▶ Convention on the Protection and Use of Transboundary Watercourses and International Lakes adopted on May 2010
- ▶ Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption (“drinking water”), as amended by Regulation (EC) 1882/2003
- ▶ Council Directive 06/7/EC of 15 February 2006 concerning the management of bathing water quality, and repealing Directive 76/160/EC
- ▶ Council Directive 91 / 271 /EEC concerning urban wastewater treatment
- ▶ Council Directive 06/113/EC of the European Parliament and of the Council of the quality required of shellfish waters.
- ▶ Directive 00/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy
- ▶ Directive 06/118 EC of the European Parliament and of the Council on the protection of ground water against pollution and deterioration.
- ▶ Directive 06/11/EC on the pollution caused by certain dangerous substances discharged into the aquatic environment of the Community.
- ▶ Law on Water (Official Gazette of RS No. 30/10);
- ▶ Law on Public Health (Off. Gazette of RS No. 72/09);
- ▶ Law on Protection of population against communicable disease (Off. Gazette of RS No.125/04);
- ▶ Law on Health Care (Off. Gazette of RS No. 57/11)
- ▶ Law of Environmental Protection (Off. Gazette of RS No 135/04.)
- ▶ Book of Regulation on Hygienic Correctness of Drinking Water (Off. Gazette of RS No. 42/98; 44/99);
- ▶ Regulation on emission limit values in waters and deadlines for the achievement thereof (Off. Gazette of RS, 67/11),

## Rules and Regulations adopted in environmental sector...

- ▶ Regulation on emission limit values in waters and deadlines for the achievement thereof (Official Gazette of RS, 67/2011), aimed at the prevention of water pollution at the source
- ▶ Regulation of limit values for priority and priority hazardous surface water pollutants and deadlines for the achievement thereof, harmonized with the Directive 2000/60/EC of the European Parliament and Council (Water Framework Directive), as well as Directive 2008/105/EC on environmental quality standards in water policy.
- ▶ Rulebook on establishing for ecological and chemical status parameters for surface waters and of chemical and quantitative status parameters for ground waters



## Legislation to be adopted...

- ▶ The Regulation on limit values for pollutants in surface waters, ground water and in sediment and deadlines for the achievement thereof is in a final stage of finalization. After adoption it will be a significant instrument for the achievement of good chemical and ecological water status.
- ▶ Significant part of this Regulation is that it lifts the protection of ground waters (which are the most important source of drinking water) to a higher level.

Higher attention is given to public participation, collecting opinions and comments, so as to ensure better results. Still, capacity building in state administration is an important task, in particular, capacity building of local self-government.

# Rule and Regulation to be adopted by the Ministry of Health

- ▶ New Rule on Hygienic Correctness of Drinking Water which is harmonized with Guidelines of Drinking Water Quality WHO ,2004 and has been recently adopted.
- ▶ Rolebook of quality of bathing water has been adopted by the Ministry of Health ;



# EXISTING LEGAL FRAMEWORK, National and International)

- ▶ Millennium development goals in the Republic of Serbia –Monitoring Framework adopted in 2006.
- ▶ **MDG 7** : Ensure environmental sustainability  
**Target 2**: Reduce the proportion of the population without adequate supply of drinking water ,access to the sewage infrastructure and organized community waste collection

**CEHAP in the Republic of Serbia for the period 2009 – 2019 adopted in 2009.**

**Regional priority I** : water and sanitation

**Target 1.** harmonization of relevant legislation with EU;

**Target 2.** establishing monitoring system for children morbidity related to the contaminated drinking water

**Target 3.** reduction of children mortality rate due to contaminated drinking water;

**Target 4.** reduction of children mortality rate due to inadequate sanitation.

# ENVIRONMENTAL AND HEALTH SITUATION

## Target area – Art. 6, 2 ( a ) – **Quality of drinking water supplies**

### ▶ CURRENT SITUATION

The basic document for drinking water quality is the Book of Regulation on Hygienic Correctness of Drinking Water (Official Gazette of RS No. 42/1998; 44/1999), approved by the Ministry of Health .The established standards include WHO recommendations from 1993 and the requirements the EU Directive 1998 /83 EC. .The standards for microbiological agents and chemical parameters in drinking water met the standards present in Directive EU 83/98 and Guidelines for drinking water quality WHO published in 1993.

- ▶ Now is ongoing process of harmonization national standards with new Guidelines for drinking water quality published 2004.



## Common indicators for bacteriological quality of drinking water

<b>Indicator</b>	<b>Initial value % (2005)</b>	<b>Current value % (2010)</b>
Coliform bacteria	0.98	0.35
E. coli	0.21	0.21
Enterococcus	0.04	0.009
Streptococcus faecalis	0.37	0.24

# Common indicators of chemical quality of drinking water

Indicator	Initial value % (2005)	Current value % (2010)
Arsenic**	0.1	0.6
Fluoride	0.0	0.0
Iron	2.15	1.95
Nitrate	1.10	0.61
Nitrite	1.49	1.16



# Common indicators of chemical quality of drinking water

Indicator (additional chemical parameter)	Initial value % (2005)	Initial value % (2010)
1.Manganese	2.07	4.03
2.Organic matter	5.55	3.30
3. Trihalomethane	0.002	0.0
4.Dichlorbrommethan	0.01	0.02
5.Chlorophorm	0.002	0.0

# Common indicators of chemical quality of drinking water

- ▶ Data are cumulative for all sources of drinking water. The data are representative for urban water supply systems
- ▶ \*\*The increased value of arsenic in drinking water is due to improved monitoring in water supply systems.
- ▶ According to Serbian monitoring programme of drinking water quality lead concentrations in drinking water are below maximum contaminant level of 0.01 mg/l.
- ▶ Maximum contaminant level according to Serbian national standard for fluoride–1.2 mg/l; nitrite– 0.03 mg/l; iron–0.3mg/l; arsenic– 0.01mg/l; manganese–0.05mg/l.

## Percentage of samples with bacteriological and chemical non-compliance

- ▶ Percentage of samples with bacteriological non-compliance is around 5 % in period from 2002 to 2010 Percentages of samples with chemical non-compliance are decreased for 5% from the year 2007 until 2010 due to improved drinking water treatment facilities in some waterworks.



Target area – Art. 6, 2 ( b )

## The reduction of the scale of outbreaks and incidence of water related – diseases

### CURRENT SITUATION

The responsibilities regarding the water related–diseases and outbreaks are regulated by the national regulation under the Ministry of Health.

Special sanitary – epidemiological management measures were taken to reduce the incidence of infection diseases including water related diseases.

- In period from 2005 to 2010 the number of 22 waterborne outbreaks was registered in Serbia. The most frequent causes in outbreaks were: Hepatitis virosa A, Shigella sonei, E.coli ,and the most frequent water related disease in this period, was Bacterial diarrhea, Hepatitis virosa A and Schigelosis.

Target area – Art. 6, 2 ( b )

## The reduction of the scale of outbreaks and incidence of water related – diseases

	Incidence		Number of outbreaks	
	Baseline (specify the year) 2005.	Current value (spec.the year) 2010.	Baseline (specify the year) 2005.	Baseline (specify the year) 2010.
Cholera	/	/	/	/
Bacillary dysentery(shigellosis)	1,41/100.000	0.96/100.000	/	/
EHEC	/	/	/	/
Viral hepatitis A	13,9/100.100	4.08/100.100	2	/
Typhoid fever	/	/	/	/



Target area – Art. 6, 2 ( b )

## The reduction of the scale of outbreaks and incidence of water related – diseases

- ▶ Under the network of 23 IPH's, coordinators for epidemic intelligence and IHR have established, **early warning system and response for communicable diseases** that may represent a potential threat to public health. Epidemic intelligence provides an effective system of communication, and a continuous flow and exchange of information with the European Centre for Disease Control and Prevention, WHO, as well as other relevant institutions in Europe, the region and in the country.

Target area Art. 6, 2 ( c )–

## Access to drinking water and sanitation

### CURRENT SITUATION

Access to water is defined as ability to receive daily at least 20l of water per person, from "improved," sources located within 1 km from consumer's dwelling. An "improved" source in Serbia is one that is likely to provide "safe" water, such as public water supply, local water supply, public tap, standpipe, protected dug well, tube well, borehole and bottled water.

Improved sanitation in Serbia includes: flush to piped sewer system, flush to septic tank, and pit latrine with watertight tank.



Target area Art. 6, 2 ( c )-  
**Access to drinking water and sanitation**

**Population in % that has access to improvement water sources**

Percentage of population	Baseline value (specify the year) <b>2000*</b>	Current value (specify the year) <b>2006*</b>
Total	98.67	99.1
Urban	99.7	99.7
Rural	90.33	91.7

\* According to National Health Survey in Serbia.

Next survey has to be conducted in 2012.

## Target area Art. 6, 2 ( c )– **Access to drinking water**

### Population in % that has access to improvement water sources

Percentage of population	Baseline value (specify the year) 2000*	Current value (specify the year) 2006*
Total	98.67	99.1
Urban	99.7	99.7
Rural	90.33	91.7

\* According to National Health Survey in Serbia.

Next survey has to be conducted in 2012.



## Target area Art. 6, 2 ( d )– **Access to sanitation**

**Population in % that has access to improvement sanitation**

<b>Percentage of population</b>	<b>Baseline value (specify the year) 2000*</b>	<b>Current value (specify the year) 2006*</b>
Total	87.2	87.7
Urban	94.1	94.8
Rural	73.1	78.4

\*According to National Health Survey in Serbia.  
Next survey has to be conducted in 2012.

# Target area Art. 6, 2 ( e,f,g,h,k,m )

## CURRENT SITUATION

- ▶ The Strategic document in the water management sector, the Water Management Strategy for the territory of the Republic of Serbia will be finalized in 2012.
- ▶ Following the enactment of the Water Law (Official Gazette of the Republic of Serbia 30/10), a number of bylaws which regulate the quality parameters of surface water and groundwater have been adopted.
- ▶ In accordance with the Water Law (Article 33), the development of the Danube River Basin Management Plan is currently in progress. So far Part 1: Assessment of the Characteristics of the Danube River in Serbia is available to the public. The entire document is expected to be completed and adopted by the end of 2012.



## Target area Art. 6, 2 ( e,f,g,h,k ,m )

- ▶ Serbia is a member of ICPDR – International Commission for the Protection of Danube River Danube River Basin Management Plan and the Joint Program of Measures, produced and adopted within the ICPDR and the member countries, and accepted by the European Union, act as a platform for activities related to water quality issues in the Danube Strategy.
- ▶ Serbia is a member of ISRBC – International Sava River Basin Commission The Sava River Management Plan, financed by EC, has been produced under the umbrella of the Sava Commission with participation of all four countries and is at present provided for public discussion. Expected adoption of the plan is December 2012. The Sava River Management Plan presents implementation of the Water Framework Directive in the Sava River Basin. Water Directorate coordinates activities of responsible ministries and stakeholders in the ISRBC.

## Next steps and future activities...

- Ratification of the Protocol on Water and Health by the end of 2012.
- Identification of key stakeholders;
- Setting up a coordination mechanism;
- Update Baseline analyses :existing legal framework and environment and health situation;
  - Identification and prioritization of problems.