



CHALLENGES IN WASTE WATER TREATMENT IN THE DANUBE RIVER BASIN – *FOCUS ON CANDIDATE AND NON-EU COUNTRIES*

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Specific tasks

Development of a study paper

Status of waste water treatment management in candidate and non-EU countries



Activities related to Waste water treatment plans (1)



- Action 4 of the PA4 Roadmap: To continue boosting major investments in building and upgrading urban wastewater treatment facilities across the Danube Basin, including measures to build capacity at the regional and local level for the design of such infrastructure. (Milestone 3: Technology development)
- Action 5 of the **updated** PA4 Roadmap: To establish buffer strips along the rivers to retain nutrients and **to promote alternative collection and treatment of waste (waters) in small rural settlements.**
 - Survey of the situation on alternative collection and treatment of wastewater in small rural settlements.
 - Promoting best practices of wastewater treatment and Programme of Measures for small settlements
 - Implementation projects and promotion of site-specific and eco-friendly waste water treatment for settlements less than 2000 PE.

PA4 activities - first steps



- A research document (*Survey of the situation on alternative collection and treatment wastewater in small rural settlements*) was developed in 2013/2014 by an international research organisation, Czech based Justice and Environment (level of waste water facilities in small local settlements);
- Following the development of the above mentioned study and based on feedback from the PA4 Steering Group and International Commission for the Protection of the Danube River (ICPDR) it was concluded that further investigation is needed in relation to the treatment of wastewater in small rural settlements and focus should be on the current situation **in the countries about to join EU (Serbia, Montenegro, Bosnia and Herzegovina) and non-EU countries (Ukraine, Moldova)**

Organisin study visits

- PA4 HU Team organised study trips to Serbia and to Bosnia and Herzegovina and also held discussion with Ukrainian decision makers in summer 2015.



Aim of the study visits

- **What is the state of play in waste water problems in BiH and RS?**
- What are the differences with domestic and industrial waste water by their importance?
- What is the scale and degrees of different treatment levels?
- Who is the competent authority in treatment planning?
- Ranking in problematic cities, towns and settlements.

Financial needs and possibilities (RS, MD, UA) – Source of info.



- Hungary-Ukraine workshop: the financial possibilities in the framework of the European Union Danube Region Strategy, (11 June 2015, Budapest).
- Workshop in the frame of the 4th EUSDR Annual Forum on: Improvement and co-operation possibilities in the water sector with non-EU countries (29-30 October 2015).
- Stakeholder Conference on European Funding opportunities in the water sector (19-20 November 2015).
- Assessment Report, developed by PA4 SK Team on financial needs of individual Danube states for completion of waste water treatment plants and sewerage systems in order to meet the goals of the Council Directive 91/271/EEC (based on questionnaires).

Development of the draft document (process)

- Based on the outcomes of the country visits (minutes from the study visits) and also based on the conclusions and findings of relevant PA4 activities the PA4 experts drafted the study paper.



Goal of the document



- To give general outlook on the impacts of pollution derived from waste water, as well as introduces the relevant regulations in EU and non-EU countries in connection to small settlements. The document introduces the outcomes of the study visits to **Serbia and Bosnia and Herzegovina and the outcomes of investigation in financial needs and possibilities in relation to Serbia, Ukraine and Moldavia**. Up to the Summer of 2016 no field visit have been made to Montenegro (ME).
- The editors of this study also reviewed outcomes of the **Danube River Basin management Plan update 2015**, in relation to the current status of UWWT in the non-EU and candidate countries in the Danube Basin and assessed the outcomes of the **Danube Water Programme country notes from the year 2015**.

Goal of the document



- The current version of the document has already been circulated to the ICPDR PM EG experts and the related comments were included in the text.
- Comments were received from the following countries: BiH, RS, SK, RO, MD
- **Thank you for all sent notes and comments!**

Structure of the document



- Foreword
- Acknowledgement
- Executive summary
- Introduction (objective of the study)
- Impact of organic and nutrient pollution derived from urban waste water
- Wastewater treatment regulation in the Danube Region
- Key waste water management related challenges
 - **Outcomes of the EUSDR PA4 activities in relation to waste water treatment management focusing on candidate and non-EU countries**
 - Outcomes of the DRBMP Update 2015 and DWP country notes
- Conclusions, Messages

Findings based on PA4 activities (1)

In the frame of the 4th Annual Forum PA4 workshop, which was focusing on the improvement and co-operation possibilities in the water sector with non-EU countries, it was stressed **that to achieve water management objectives, water governance in these countries needs to be substantially strengthened.**

- Institutional strengthening and greater effectiveness of water governance;
- Effective and straightforward legislation;
- Dedicated Water Fund and adequate and independent financial accumulation;
- Dynamic and productive cooperation with all scientific and technical institutions.

Findings based on PA4 activities (2)

The BiH experts were indicated that **no specific investments have been implemented for small settlements in the areas where large scale sewage systems do not exist;** waste water is collected by a separate sewage system which disposes waste water into individual cesspools and collective pits.

No specific regulation has been determined for settlements smaller than 2000 PE. and relatively significant percentage of the population rely on self-provision of water and sanitation services. Most small communities (<2,000 people) do not have wastewater treatment plants or no specific investments have been implemented for small settlements.

Findings based on PA4 activities (3)

In BiH 10% of the collected wastewater is being treated, in Serbia 7,5% of the total collected load treated. In Republica Srpska, as entity in Bosnia and Herzegovina, 30% of waste water is collected and around 10% are being treated.

It can be concluded that small proportion of the waste water is collected and being treated - environmental and human health risks

Findings based on PA4 activities (4)

In Serbia capacity and technology of wastewater treatment plants and collectors need to be renewed and upgraded and the same tasks have been formulated also in Ukraine, where the necessity and the maintenance of the construction of water systems is one of the tasks. In BiH and RS the water sector is operating with an outdated infrastructure. **It can be concluded that in BiH, UA and RS the water sector is operating with an outdated infrastructure which need to be renewed.**

Findings based on PA₄ activities (6)

Conclusions related to financial issues wrap upped at the end of the Hungarian-Ukrainian high level workshop, are also relevant for Serbia, Bosnia and Herzegovina and Moldova such as:

The number and (amount) of needs is high, the sources of development are only available in a limited quantity. The development needs are important, so thus the coordination of the development needs.

The collection of mature and sustainable project ideas is necessary and the communication between the applicants is also important. During the review of development possibilities the water quality and energetic programs get advantages;

Findings based on PA4 activities (7)

Project management capacity and knowledge needs

An important observation – highlighted by the Serbian experts – is that there **is a serious need to increase capacity and knowledge in relation to tender developments and project management as well as for planning especially at local level**. Available financial sources cannot be utilised properly since in the **smaller cities, municipalities there are no suitable staff, expertise to elaborate tender** documentation or to manage projects, with difficult financial regulations and administrative demands.

EUSDR tasks

The EUSDR need to further assist in networking and in partner finding for projects

- to enhance and improve water infrastructure.
- to improve water utility staff (via training) toward enhancing water utility management and performance.

EUSDR PA4 should further organise conferences/workshops in relation to funding opportunities as well as project partner search seminars.

Next steps



- The Executive Summary Part of the document will be further developed and create the bases of a short leaflet/brochure.
- From 2017 the objective is to assist in project proposal development and project implementation activities in relation to the topic of facilitating the efficiency of waste water treatment in the basin (specific focus on non-EU countries).

Thank you for your kind
attention!

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