THEMATIC CONCEPT PAPERS

Polish contribution to the concept paper on Theme 1: Water for Health: Access to WASH, including the Human Rights to Safe Drinking Water and Sanitation

I. Introduction

II. Overview of the challenge, current status and interlinkages

In the perspective of Central and Eastern Europe, one of the main challenges now is lack of access to water and sanitation for people of conflict affected regions in Ukraine due to Russian invasion. The crisis situation in Ukraine in terms of difficulties with access to water and sanitary conditions should be emphasized. In the face of Russia's recent massive attacks on Ukraine's water and sewage infrastructure, many people in war-torn regions are left without access to running water and sanitation. Thus, we call for action to ensure access to safe water and sanitary facilities, and in the future to rebuild the water supply and sewage infrastructure.

Due to Russia's invasion of Ukraine, over 7 million refugees crossed the border with Poland, and Poland provides everyone with access to water and the use of sanitary facilities, which posed a number of logistical challenges, including in terms of the proper operation and functioning of water supply and sewage systems. Due to the escalation of this conflict, it is also a challenge to ensure the security of water supply in the event of emergencies.

In general, the condition of waters in Central and Eastern Europe is affected by various pressures. Taking as an example Polish water resources, there are low level of disposable water resources per capita. Also the volume of water retention is only about 7 percent of annual runoff. Despite limited water resources, over 96% of the urban population and over 85% rural areas has universal access to drinking water in adequate quantity and quality. Access to water and sanitation in rural areas is more difficult due to the extensive residential buildings.

III. Overview of opportunities for progress and transformative solutions

The situation requires strengthening and implementing the human right to water and sanitation in the national legislation, including the water supply investments in programming funds and financial mechanisms and rising awareness of its importance.

1. Financing

Ensuring common access to water and extension of water supply and wastewater infrastructure, using as an example Polish approach to the tariffs policy, focusing on avoiding

unjustified increase in prices for water and sewage services and recent Polish strategies to minimize the effects of high inflation levels and energy market crisis;

Ensure comprehensive and sustainable water financing, reflecting the state of macroeconomic indicators, such as inflation, the cost of water, including water scarcity costs, environmental costs, operational costs and investment costs.

In Poland, tariffs for water and sewage collection are approved by the independent regulatory body. The tariffs for collective water supply and collective sewage disposal are approved for a period of 3 years, which is intended to enable, in particular, balancing the available water resources over a period longer than 1 year due to the possibility of extreme phenomena (e.g. drought) and assessing the availability of this resource, and thus the certainty of this valuation for recipients of water supply and sewage services. Polish government has introduced protective measures to minimize the effects of rising energy and gas prices and high inflation. These activities are aimed at protecting the population against the effects of these phenomena by ensuring affordable prices for water and sewage.

2. **Data and information**

Using as an example Polish plans to gather information about the access to safe drinking water and to identify groups suffering from lack of such access; plans on collecting data about water leakages in water distribution systems, promoting use of innovative solutions which increase effectiveness in management of drinking water infrastructure;

In Poland the degree of water supply is over 92%. Additional efforts are focusing on the development of the water supply and sewage systems, including the investments related to water supply in the planning of funding sources.

In order to properly assess the tasks to be performed, it is necessary to have extensive, reliable data on the situation in the sector of collective drinking water and wastewater infrastructure. Poland plans to take action to identify the situation regarding problems with access to safe drinking water. Identification of groups without access to water will be the basis for identifying the reasons for this lack and creating a strategy of actions to increase access to water, in particular in areas most exposed to water shortages.

3. **Capacity development**

4. **Innovation**

Supporting investments aiming at reducing water losses, especially modernization of water supply infrastructure that are given a priority in funds and other financial mechanisms; supporting investments in water reuse, inter alia in agriculture; education on sustainable use of water, involving society and industry in sustainable management of water resources.

The priority is to reduce the water footprint, i.e. the indicator of fresh water consumption by the consumer or producer, taking into account direct (washing or watering the garden)

and indirect consumption (water used at all stages of the production of goods). To reduce the water footprint, both direct and indirect water consumption must be reduced. For example, the average water footprint of the inhabitants of Poland is 3,900 liters per day, which amounts to approximately 54 billion liters per year. The water footprint shows that as consumers we have a major impact on the world's water resources, and that issues such as water scarcity and water pollution can be better understood and addressed by taking into account all production and supply chains. It is crucial to encourage both industry and households to reduce water footprint.

Examples of such tools can be:

1) Reducing water losses in the distributions systems by modernizing the network and using modern IT technologies by:

- construction of a rainwater drainage system limiting the runoff of rainwater to the sanitary sewage system and keeping water at place of fall;
- recovery of process water, e.g. from washing filters at water treatment stations;
- wastewater treatment technology at treatment plants that return safe water to rivers, e.g. by removing microorganisms through the use of UV radiation;
- closed water circulation by renewing water to and returning it to the collection point in cooling processes;
- heat recovery from sewage by using heat exchangers on sewage collectors;
- installations for the reuse of the so-called gray water without faeces in sanitary facilities.

2) SMART WATER, is one of the elements defining a smart city - SMART CITY, which can optimize and eliminate water waste and distribution costs by:

- recognizing anomalies in the consumption patterns of both water supply companies and individual households,
- controlling water consumption in the household enabling the determination of the most water-intensive devices and limiting the amount of water used in them,
- remote monitoring of the operation of heating and water supply networks and the introduction of their intelligent metering,
- real-time monitoring and forecasting of precipitation and water levels in rivers and reservoirs to prevent and limit the effects of flooding,
- real-time monitoring of tap water and surface water quality parameters.

The implementation of solutions based on modern monitoring and metering systems helps to improve the entire process of urban water circulation.

5. **Governance**

Poland will carry out further activities aimed at ensuring the appropriate quantity and quality of water intended for human consumption, which cover a wide range of projects, and their implementation requires the involvement of all stakeholder groups, from central and local government, through entities providing water supplies and managing water management, to citizens - water consumers.

An example of standard activities are educational campaigns to raise awareness and participation of the public and industry in improving water sustainability and reducing the water footprint. In addition, cooperation between countries to exchange experiences and good practices is of large importance.

IV. Recommendations

Actions to be taken are:

- Promoting access to safe water and sanitation for all by central and local governments – especially in terms of enabling appropriate funding, external and internal, for the investments in water and sewage infrastructure and ensuring affordability of these services;
- Counteracting water shortages by responsible and sustainable use of resources with participation of water authorities but also both industry and society;
- Providing help to Ukraine to ensure access to water and sanitation now and support in restoration of infrastructure in the future.

V. Guiding Questions

THEMATIC CONCEPT PAPERS

Polish contribution to the concept paper on Theme 4: Water for Cooperation: Transboundary and International Water Cooperation, Cross Sectoral Cooperation, including Scientific Cooperation, and Water Across the 2030 Agenda

I. Introduction

II. Overview of the challenge, current status and interlinkages

Water management fulfills two key tasks, it is to maintain ecological security and ensure the supply of disposable water resources for economic and social purposes while maintaining economic efficiency. In both cases, the most important issues are water quality and quantity. The best results in water management are provided by measures that cover the entire catchment area. Transboundary waters account for a significant portion of the world's water resources, so the responsibility for the proper use of shared waters applies to all countries with access to them. International cooperation on transboundary waters is an integral part of the country's water management and supports its important activities, including the warning system against dangerous hydrometeorological occurrences, the flood and drought defense, and the monitoring and protection against the pollution.

Implementation of joint water activities with foreign partners requires the establishment of a formal framework in the legal, institutional and financial context. To this end, contracts shall be concluded defining the objectives and scope of cooperation in the field of water management. One particularly desirable legal form of cooperation is agreements covering the entire international river basin area, in which all coastal States participate in integrated river basin management. They ensure the best results in achieving environmental, economic and social objectives. However main obstacles which withhold the development of the above mentioned cooperation agreements includes lack of the political will and the ongoing conflicts. Therefore other forms of cooperation, such as bilateral agreements between states, regions or institutions are also of significant importance, since they conduct specific projects and activities.

III. Overview of opportunities for progress and transformative solutions

One of the effective ways to develop the transboundary water cooperation and overcome its challenges is carrying out the international projects aimed at the improvement of the international transboundary river basin areas. The projects operated by the institutions for water management involving more stakeholders to the scene and coming closer to the issue, and hence ensures progress in the implementation of the water goals.

Poland would like to illustrate such approach on the examples of the concrete projects carried out by the Polish water management institutions:

- the priority financing program “Investments in wastewater management outside the country” issued by the National Fund for Environmental Protection and Water

Management of the Republic of Poland (NFEP&WM). The aim of the program is to support concrete measures to improve the condition of surface and groundwater in the transboundary river basin areas which have impact on the condition of environment in Poland;

- Memorandum of Cooperation signed between the National Fund for Environmental Protection and Water Management, Lviv City and Lvivvodokanal (Lviv Water and Wastewater Enterprise), under the auspices of the Ministry of Ecology and Natural Resources of Ukraine. The main objective of the Memorandum is the implementation of necessary actions to ensure effective and complex treatment of city wastewater for minimizing pollution of the transboundary Bug River;
- Memorandum signed between State Water Holding Polish Water and State Agency of Water Resources of Ukraine. Such cooperation will help Ukraine to fulfil the European Union water policy standards, as well as to reconstruct the hydrological infrastructure after the Russian aggression.

1. **Financing**

As an example, the priority program "Investments in wastewater management outside the country" is dedicated to support the Polish neighboring countries in investment projects aiming at water status improvement in water basin areas having impact on Polish surface and ground water status. The financial resources are distributed in the form of preferential loans. Projects to be supported are: construction, extension or modernization of municipal wastewater treatment plants (including sludge management), sewage sludge treatment plants and sanitation systems in order to improve the state of surface waters and groundwater in the transboundary basins and to improve the environmental safety of the region.

2. **Data and information**

Data standardization tasks are preformed within the working groups of the existing transboundary waters commissions. There are expert groups on analysis quality assurance which carry out joint comparative studies in the field of water status monitoring. Such assignment involves the laboratories of all contracting parties. The results of the analyses are compiled in the form of a report. Although such a study takes time and resources, these are highly desirable practices to obtain comparable data.

3. **Capacity development**

The cooperation between State Water Holding Polish Water and State Agency of Water Resources of Ukraine in the field of water management is set up to support the Ukraine in the EU Water Framework Directive implementation process and hence to improve the quality of ecosystems on both sides of the border. The cooperation will create opportunity to transfer knowledge and experience and therefore increase the potential of the Ukrainian

institutions and work force in the field of water management. The Memorandum of Understanding signed in October 2022 is a next important step in cooperation between the Parties and the expression of good will for further closer bilateral actions aiming at coordination of water management on both sides of the PL/UA border.

4. **Innovation**

5. **Governance**

Transboundary waters cooperation involves governments, water management institutions, research institutes, regional authorities and other stakeholders in the common responsibilities for the benefit of the environment, society and the economy. Therefore the activities of the river basin commissions, bilateral commissions and other cooperation bodies might be used as an example of best practices and specific actions to be used in the implementation of SDG 6 water goal worldwide.

IV. Recommendations

- Supporting the conclusion of bilateral and multilateral agreements between riparian states, in particular agreements covering the entire international basin districts, and promoting the establishment of cooperation bodies such as river basin commissions or bilateral commissions on their basis;
- Promoting of the institutional and regional international cooperation in the field of water management to create the opportunity for sharing the know-how of the experienced institutions and its valuable knowledge;
- Promoting financing projects of water management in the frames of international cooperation, e.g. on the example of Polish environmental protection financing system implemented by National Fund of Environment Protection and Water Management;
- Sharing the experience of the existing river basin commissions, as the examples of good practices, in particular in the water resources data exchange and the standardization of the research methods.

V. Guiding Questions

1. How to overcome the lack of the political will, which is one of the mail obstacles in the development of the transboundary water cooperation?
2. How can the experience of international cooperation bodies in transboundary waters be applied to the implementation of water goal SDG6?