

TERMS OF REFERENCE FOR INDIVIDUAL CONSULTANTS

TITLE	Development of Recovery Roadmap and Strategy for Kharkiv City Vodokanal, towards compliance with standards of the European Union – National Consultant for Ukrainian legislation and compliance	
Requesting Section	WASH	
Type of engagement	Consultant	
Selection method	Competitive selection [advertisement]	
Start/End date	17-Jun-24	31-Oct-24
Duration <i>[up to 36 months without mandatory break-in-service]</i>	4.5 months	
Duty Station	Kharkiv	
Number of working days	40	
Terms of payment	Upon completion of each deliverable according to schedule	

Background:

Ukraine has been grappling with the consequences of the ongoing war, which has now entered its third year of escalation. Even before the conflict escalated in February 2022, approximately 10 million people in Ukraine lacked access to centralized piped water supply, and 20 million people lacked access to centralized wastewater collection and treatment facilities (GoU, 2021). The situation remains almost the same as per the Government's 2023 figures. The water and sanitation facilities are generally old and decaying, with both drinking water supply and wastewater treatment depending on this heavily degraded infrastructure. As of 2021, around 40% of existing networks were in critical condition, and almost 35% of sewage treatment facilities needed upgrades (GoU 2021).

The war has significantly exacerbated the vulnerability of Ukraine's water and sanitation sector. According to the latest Rapid Damage and Needs Assessment, between February 2022 and December 2023, the estimated physical damage for the water supply and sanitation sector stands at US\$4 billion, with around US\$1.8 billion due to damages between February and December 2023. Losses have been estimated at approximately US\$11.6 billion, a 53% increase (US\$4 billion) compared to February 2023. Around 40 percent of the total losses stem from lost revenues from WSS services provision, with the next biggest losses incurred due to increased energy costs, fuel consumption, prices of materials and equipment, and tariff deficits.

The majority of the responsibility to supply safe drinking water falls on Ukrainian vodokanals (water utilities). As of December 2023, the estimated number of utilities providing water supply and sewage services in Ukraine is approximately 2,550 (Vodokanal Association 2023). The size of water supply and sewage systems is, on average, 2.5 times larger than the existing needs. The average water loss among the largest utilities is 41.1% (data from the National Tariff Regulator), and only 30% of the water supply systems are equipped with commercial water meters.

Kharkiv, the second-largest city in Ukraine and the administrative center of Kharkiv oblast, has been severely affected by the ongoing war. With a pre-war population of over 1.4 million people, the city's water and sanitation infrastructure has suffered significant damage due to artillery and rocket-bomb attacks. As of early 2023, more than 4,000 infrastructure objects were destroyed or damaged, with the situation likely to have worsened over the past year.

The Kharkiv City Vodokanal, responsible for providing water to the city's residents, has faced numerous challenges. The utility's water supply network spans 2,650 km, including 800 km of main water pipeline and 1,850 km of distribution network. The sewage network is 1,640 km long, with 30 sewage pumping stations in operation. Water is sourced from three different locations: the Pecheneg reservoir, the Krasnopavlivske reservoir, and artesian wells. The Pecheneg reservoir's pumping station (Kochetok) was shelled in 2022 and is currently being rehabilitated with the support of SDC.

One unique aspect of Kharkiv Vodokanal is its responsibility for 60% of the internal networks in the city's 8,200 multistorey buildings. Since February 2022, 4,500 of these buildings have been damaged or destroyed. The regular shelling has increased the need for emergency interventions and repair materials, putting additional pressure on the utility's already strained financial situation. The utility's monthly income dropped from 175 million UAH in 2021 to 100 million UAH in 2023, while expenses remain almost stable at around 235 million UAH. The cost of electricity alone, at 130 million UAH per month, exceeds the utility's income. The Vodokanal's debt amounts to 2.6 billion UAH, including 1.4 billion to the electricity company. The utility has also lost more than 1,000 employees from its nearly 6,000-strong workforce.

In addition to the war-related challenges, Kharkiv also faces climate-related changes, such as heavy rains causing floods, strong winds, and drought events. The 1995 Kharkiv drinking water disaster, caused by torrential rain flooding the Dykanivka wastewater treatment plant, highlights the city's vulnerability to such events. Kharkiv was also attacked in February 2024 causing an oil spill that, in turn, led to oil products being found in the city's drinking water pumps.

As the second most important city in Ukraine, Kharkiv needs a clear recovery plan to showcase the municipality's vision, inform its citizens, and prepare for the return of those who may come back when conditions allow. UNICEF facilitates the coordination of humanitarian and development partners, including the WASH Cluster and the Water Supply and Sanitation Donor Group, which includes representatives from various organizations such as BHA, Danida, EBRD, EIB, EU Commission, GIZ, Nefco, USAID, VEI, WHO, and the World Bank.

To support the reconstruction and rehabilitation of Kharkiv's water supply and sewerage systems, UNICEF proposes the development and design of a recovery roadmap and strategy for the city. This project presents a unique opportunity to address the immediate and urgent needs of children and their communities while implementing longer-term solutions with potentially sustainable outcomes. The guiding principles of the recovery roadmap would follow the build back better and greener principles and ensure strong social accountability, paving the way for the gradual achievement of demanding EU standards for WASH service delivery. The project in Kharkiv, beginning with this recovery roadmap and eventual implementation, has the potential to become a scalable model for WASH service delivery in Ukraine.

Purpose of assignment:

The main objective of this assignment is to conduct a comprehensive study and analysis of the current and future situation for water and sanitation services under Kharkiv City Vodokanal. The study will be used to develop a pragmatic roadmap and strategy that will guide future works and investments in water, sanitation, and related infrastructure and services. The ultimate aim is to ensure that all concerned and potential consumers have access to safely managed drinking water supply, sanitation, and drainage services that meet relevant national and EU standards.

Key Objectives:

- Assess the current state of drinking water supply and drainage services in Kharkiv, considering external and internal factors such as state policies, Kharkiv oblast and Kharkiv city priorities for the recovery, war related risks, damages and implications, management and regulation models, functionality, stability, transparency, and consistency of work institutions. Additionally, the assessment may include the identification of vulnerable neighborhoods by analyzing areas susceptible to water and heating facility deficiencies, aging infrastructure, and difficulties associated with water tariffs.
- Conduct a scoping exercise to identify the priorities and needs of the Vodokanal and the actions required to achieve its strategic goals and implement its operational priorities. Assess Vodokanal's financial resources, with particular attention to non-revenue water sources, to anticipate future funding needs across different scenarios.
- Develop a water and sanitation strategic roadmap and recovery plan outlining the necessary actions and investments in the short, medium, and long term, along with expected results and outcomes, including the design of a Water Management Efficiency Plan to ensure efficient water distribution and meet national and EU standards.
- Provide recommendations for implementing the recovery roadmap effectively, which may include the development of a Data Sharing Platform and Contingency Protocol to identify backup water sources and guide international support.

This consultancy specifically requires expertise in Ukrainian legislation and compliance for water utilities, which the consultant would be required to analyse and apply for the required assignment, as illustrated above.

The roadmap should be comprehensive, addressing both hardware and software aspects, including governance of WASH services, citizen engagement mechanisms (e.g., grievance redressal), water quality monitoring, an M&E system to track progress against the recovery roadmap and performance improvement for WASH services, and water safety planning that considers climate change threats in the Kharkiv area.

Given the volatile situation, the roadmap should be pragmatic, time-bound (5 years), and include realistic objectives, measurable targets, and milestones that align with the funding that can be leveraged by the city's fiscal space and from partners.

The recovery plan should therefore:

- Be developed through proactive consultation with all parties, particularly the municipality and vodokanal's vision for recovery, citizens' aspirations, and insights from key partners to leverage technical assistance and resources.
- Be based on a feasibility assessment that considers the capacity of municipal and technical services, funding prospects, demographic trends, and projections for Kharkiv City and its surroundings.

The plan should consider two prospective scenarios:

- Accelerated recovery with security measures ensured and the contact line near Kharkiv under control.
- Continued regular attacks on Kharkiv, necessitating a different phasing of operations to prevent damage to investments.

The main goals (thematic directions) for the roadmap are as follows:

1. **Service delivery**
 - (i) Avoid water and sanitation service disruption, as well as that for district heating
 - (ii) Restore Service Continuity
 - (iii) Ensure safe and adequate service delivery
2. **Efficiency gains**
 - (i) Customer base maximization
 - (ii) Non-revenue water reduction
 - (iii) Efficiency power sourcing
 - (iv) Water utilities aggregation
 - (v) Asset maintenance improvement
 - (vi) Admin and commercial optimization
 - (vii) Direct efforts towards vulnerable neighborhoods by analyzing and mapping areas prone to water facility issues, aging infrastructure, and difficulties associated with water fees as a goal within the roadmap. o water fees.
 - (viii) Maximize the system efficiency sustainably
3. **Financial sustainability**
 - (i) Tariffs
 - (ii) Working capital
 - (iii) Funding
 - (iv) Procurements
4. **Strategy and governance**
 - (i) Sector strategy
 - (ii) Stakeholders roles
 - (iii) Legal framework
 - (iv) Regulation
 - (v) Enhanced Vodokanal's governance and transparency
5. **Investment and innovation**
 - (i) Private sector engagement
 - (ii) Government support
 - (iii) Cross-sector agenda
 - (iv) Data Sharing Platform and Contingency Protocol Development

Working modality: The consultant is expected to work at least 15 days in Kharkiv. All changes of work modality would be discussed and agreed with the supervisor. Any other travel within Ukraine is not anticipated or required for this consultancy.

Minimum requirements:	Education <i>[specify disciplines]</i>	Master's degree	An advanced university degree preferably in the field of policy and legislation, with studies relevant to the field of water, such as water supply sanitary engineering, water treatment, water governance, etc.
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	<p>Professional experience <i>[number of years, relevant to the assignment, other specifics]</i></p>	<ul style="list-style-type: none"> • 10 or more years in topics relevant to water governance or water-related legislation drafting. • 5 or more years of experience in water supply, wastewater treatment, water management, or related areas, preferably on a management role. • Knowledge and experience in the Ukraine context, especially in the Ukrainian water sector, are required. • International experience will be considered an asset, including working foreign experts and international donors. 	
	<p>Language</p>	English	Upper-intermediate [B2]
	<p>Skills and competencies</p>	Ukrainian	Proficient/Native [C2]
		<ul style="list-style-type: none"> • Technical knowledge of Ukrainian policies and legislation in the following areas: municipal water supply, municipal wastewater treatment, energy efficiency, sustainable water management, and related disciplines. 	

Work assignment overview:

Deliverable	Deadline	# of w/days
<p>Deliverable 1: Inception report An inception brief that will detail the following elements:</p> <ul style="list-style-type: none"> • Background • Scope of work • Activities • Tasks • Deliverables • Timelines for deliverables <p><i>Language requirement: English</i></p> <p>As the legislation expert for the project, the consultant will be required to provide the following sections to the team leader for consolidation of the inception report:</p> <ul style="list-style-type: none"> (i) Scope of work in terms of legislation and compliance (ii) Activities and tasks required to achieve compliance as part of the project (iii) Annexures as relevant 	<p>10 July 2024</p>	<p>2 days</p>
<p>Deliverable 2: State of play documentation Documentation of the current situation of service delivery of the vodokanal, needs, and actions required for and by the vodokanal.</p> <p><i>Language requirement: English</i></p> <p>The state of play documentation would provide the necessary background understanding to develop a recovery roadmap strategy and plan for the Kharkiv City vodokanal. The documentation would cover:</p> <p>(i) A scoping exercise to understand the needs of the Vodokanal, actions required to achieve set goals and implementing the Vodokanal’s tasks. This task would require broad consultation (key informant interviews and focus group discussions) to define the most pragmatic and relevant plan, including with:</p> <ul style="list-style-type: none"> • Ministry for Restoration • State Agencies • Kharkiv Municipality • Kharkiv Vodokanal • National Association for Vodokanals • WASH Cluster and its relevant members • UN agencies • Donors and International Financial Institutions • Citizens and youth directly affected. <p>UNICEF will facilitate access to these key stakeholders.</p> <p>(ii) Based on the above, this would include the current situation (state of play) of drinking water supply and drainage services in Kharkiv, including external and internal factors which influence the working of the vodokanal, such as: state policies, war risks, damages and implications, management and regulation models, functionality, stability, transparency and consistency of work institutions, etc.</p> <p>This encompasses mapping vulnerable neighbourhoods regarding water facility issues, identifying areas with water fee challenges and aging infrastructure, and forecasting scenarios, including potential relocations due to war, through demographic studies to pinpoint areas under heightened pressure on water facilities.</p>	<p>15 August 2024</p>	<p>10 days</p>

<p>The expert would work with the team leader of the project to provide the necessary support in organising the scoping exercise, and accordingly analyse the information gathered and provide input for the state of play.</p>		
<p>Deliverable 3: Kharkiv City Vodokanal Recovery Roadmap Strategy and Plan</p> <p><i>Language requirement: English and Ukrainian</i></p> <p>Based on the insights provided as part of the state of play, the key work of this assignment is the development of a roadmap strategy and plan with 6 prioritized actions and investments required in the short term, the medium terms and the longer term. The plan should also indicate the expected results and outcomes the actions and investments presented. The main goals (thematic directions), which may be updated as per the findings in the previous works illustrated above, for the roadmap are indicated in the earlier sections.</p> <p>The roadmap strategy and plan should be complemented with a chapter to provide recommendations on the way forward in implementing the recovery roadmap and to anticipate future reliance on international funds. Recommendations may also aim to improve Vodokanal’s governance by enhancing procurement transparency to secure trust and international funding.</p> <p>The expert would work with the team leader of the project to provide the necessary input for the development of the recovery roadmap strategy and plan.</p>	<p>15 September 2024</p>	<p>20 days</p>
<p>Deliverable 4: Consultations and reports</p> <p>Two consultations:</p> <ol style="list-style-type: none"> 1. With partners 2. With the Kharkiv City Vodokanal <p><i>Language requirement: English and Ukrainian</i></p> <p>The drafted recovery roadmap strategy and plan would be finalized basis two consultations with partners and the vodokanal (respectively). The expert would be required to attend and present in the above consultations, and document all feedback received to be added to the final reports.</p>	<p>15 October 2024</p>	<p>5 days</p>
<p>Deliverable 5: Final reports</p> <p>Final designed report in English and Ukrainian, with infographics, as required.</p> <p><i>Language requirement: English and Ukrainian</i></p> <p>Final report encapsulating all objectives and works presented in this TOR, designed with infographics and maps, as required.</p>	<p>31 October 2024</p>	<p>3 days</p>
	<p>Total:</p>	<p>40</p>

Payment of professional fees will be based on submission of agreed deliverables. UNICEF reserves the right to withhold payment in case the deliverables submitted are not up to the required standard or in case of delays in submitting the deliverables on the part of the consultant

Individuals engaged under a consultancy will not be considered “staff members” under the Staff Regulations and Rules of the United Nations and UNICEF’s policies and procedures and will not be entitled to benefits provided therein (such as leave entitlements and medical insurance coverage). Their conditions of service will be governed by their contract and the General Conditions of Contracts for the Services of Consultants. Consultants are responsible for determining their tax liabilities and for the payment of any taxes and/or duties, in accordance with local or other applicable laws.

The selected consultant is solely responsible to ensure that the visa (applicable) and health insurance required to perform the duties of the contract are valid for the entire period of the contract. Selected consultant are subject to confirmation of fully-vaccinated status against SARS-CoV-2 (Covid-19) with a World Health Organization (WHO)-endorsed vaccine, which must be met prior to taking up the assignment. The vaccine mandate, does not apply to consultants who will work remotely and are not expected to work on or visit UNICEF premises, programme delivery locations or directly interact with communities UNICEF works with, nor to travel to perform functions for UNICEF for the duration of their consultancy contracts.

UNICEF offers [reasonable accommodation](#) for consultants with disabilities. This may include, for example, accessible software, travel assistance for missions or personal attendants. We encourage you to disclose your disability during your application in case you need reasonable accommodation during the selection process and afterwards in your assignment.