



MINISTRY OF FOREIGN AFFAIRS
OF DENMARK



COWI

Assistance to the Development of the **Mykolaiv** **Masterplan**

Water Supply and Sanitation - Vision-2050

Final

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Contents

1.	Introduction	1
2.	Water Supply and Sanitation in Mykolaiv - Vision Statement	2
2.1	Holistic SDG Integration	2
2.2	Compliance with EC Directives	2
2.3	Environmental Neutrality and Beyond	2
2.4	Energy-Friendly Infrastructure	2
2.5	Active Leakage Control and Asset Management	2
2.6	District Metered Areas for Comprehensive Monitoring	3
2.7	Community-Centric Approach	3
2.8	Continuous Innovation and Learning	3
2.9	Transparency and Accountability	3
2.10	Sustainable Financing	3
2.11	Resilience in the Face of Change	3

List of Abbreviations

DMA	District Metered Areas
EC	European Commission
MCA	Mykolaiv City Administration
MFA	Ministry of Foreign Affairs
MVK	Mykolaiv Vodokanal (Water Utility)
NGO	Non-Governmental Organisation
NRW	Non-Revenue Water
SDGs	Sustainable Development Goals
WSS	Water Supply and Sanitation

1. Introduction

This report has been developed within the framework of the project “Mykolaiv - Denmark partnership – Technical support unit” financed by the Danish Ministry of Foreign Affairs (MFA). The project, which has been entrusted COWI, is a framework contract, which, among others, includes assistance to the Mykolaiv City Administration (MCA) in developing the Mykolaiv Masterplan in close cooperation with an Italian company, One Works.

Text box: COWI's contribution to Mykolaiv Masterplan in a nutshell

COWI and One Works are collaborating on various sectors of the Mykolaiv masterplan, which is being carried out for the Mykolaiv City Administration. COWI is responsible for three specific sectors:

- ✓ Water and wastewater
- ✓ Energy, including power, district heating, and renewable energy sources
- ✓ Solid waste management.

COWI has established a project organization consisting of a project management team and three sector teams of professionals, each headed by a so-called Discipline Leader, and each supported by a Focal Point. The three focal points are responsible for monitoring cross-cutting activities, ensuring coordination between the parties, and maintaining consistency in the deliverables.

To enhance transparency in the development of the Mykolaiv Masterplan, given its significant public interest and exposure, COWI has established three sector-specific Sounding Boards inviting all potentially interested parties to take part in these.

This report presents the vision for the Water and Wastewater sector in the city of Mykolaiv in the year of 2050.

A draft vision has been presented to colleagues in the MCA and One Works. Furthermore, it was discussed at the 1st meeting of the Sounding board on water. All comments have been incorporated to the final version of the report.

The primary target group is the MCA and One Works.

The report consists of two chapters, including the current. Chapter 2, titled “Water and Wastewater in Mykolaiv - Vision Statement” presents the rationale and describes how the water sector and in Mykolaiv City should look like by the year 2050.

2. Water Supply and Sanitation in Mykolaiv - Vision Statement

In the year 2050, Mykolaiv Vodokanal (MVK), responsible for the provision of water services to population of Mykolaiv City, as well as industries, institutions and other consumers in the city, envisions a sustainable, resilient, and ecologically balanced community where water resources are managed with excellence, in alignment with the United Nations Sustainable Development Goals (SDGs), and in accordance with the European Commission (EC) directives. As a beacon of responsible water management, MVK is dedicated to achieving environmental neutrality, fostering a green transition, and embodying energy efficiency. Through innovation, strategic management, and community collaboration, MVK aspires to ensure clean water access, reduce environmental impact, and inspires positive change on a global scale.

The following chapters outline the guiding principles that served as the basis for that vision.

2.1 Holistic SDG Integration

MVK commits to integrating the United Nations SDGs into every facet of its operations, ensuring that the efforts contribute to the achievement of these global goals. Actions will encompass clean water and sanitation, climate action, sustainable cities, responsible consumption, and more.

2.2 Compliance with EC Directives

MVK adheres unwaveringly to the directives set forth by the European Commission. Company's policies, practices, and innovations will be in full alignment with EC guidelines, thereby leading the region's green transition and upholding environmental standards.

2.3 Environmental Neutrality and Beyond

MVK's goal is to achieve a state of environmental neutrality for its services. MVK will minimize its carbon footprint, reduce waste, and adopt sustainable practices across the board. Beyond neutrality, MVK strives to leave a positive impact on the environment through restoration and conservation efforts.

2.4 Energy-Friendly Infrastructure

MVK is dedicated to transforming company's infrastructure into energy-friendly assets. By harnessing renewable energy sources, such as biogas at the wastewater treatment plant, MVK aims to reduce energy consumption, minimize greenhouse gas emissions, and enhances the sustainability of the operations by investing in more green solutions.

2.5 Active Leakage Control and Asset Management

MVK commits to efficient water management extends to active leakage control. MVK will implement comprehensive strategies to minimize Non-Revenue Water (NRW), enhance distribution network efficiency, and optimize asset management. Through state-of-the-art technologies and diligent monitoring, MVK will conserve water resources and improve operational effectiveness. This is done by understanding international practices and actively collaborating with other international utilities to achieve knowledge sharing.

2.6 District Metered Areas for Comprehensive Monitoring

To ensure responsible water consumption, MVK will establish District Metered Areas (DMAs) throughout the city. These areas will enable precise monitoring of water distribution, enabling MVK to identify and address inefficiencies, reduce wastage, promote water-saving behaviours among consumers, and contribute to the above-mentioned decrease of NRW.

2.7 Community-Centric Approach

MVK's success relies on the involvement of the citizens of Mykolaiv. MVK will actively engage and educate residents about water conservation, sustainable practices, and the significance of our collective efforts. By fostering a sense of ownership, MVK aims to build a sustainable water-conscious culture.

2.8 Continuous Innovation and Learning

Embracing innovation as a cornerstone, MVK will continuously seek out cutting-edge technologies, methodologies, and solutions. Through ongoing learning and adaptation, MVK will remain at the forefront of sustainable water management practices and lead by example.

2.9 Transparency and Accountability

MVK's operations will be characterized by transparency and accountability. MVK pledges to communicate on progress, challenges, and achievements openly. By being held accountable to stakeholders, MVK ensure that actions align with the vision.

2.10 Sustainable Financing

It's key ensuring that financing is available, not only in the short term, not only for capital investments to be made, but also in the long run, for operation and maintenance costs and renovation. That its financing should be sustainable.

2.11 Resilience in the Face of Change

As MVK navigates a dynamic world, MVK commits to building resilience into the strategies. Whether in the face of climate change, technological advancements, or evolving community needs, MVK will adapt and fortify its approach to ensure the longevity and efficiency of the company's initiatives.