



# Operational Tools for Better WOPs





BEWOP is a collaborative research and outreach initiative between the world's foremost capacity development institute in the water sector, IHE Delft, and UN-Habitat's Global Water Operators' Partnerships Alliance, the organization leading the global WOPs movement. BEWOP aims at boosting the effectiveness of Water Operators' Partnerships (WOPs) around the world.

#### **What are WOPs**

Water Operators' Partnerships (WOPs) are peer support partnerships between water utilities. WOPs work by harnessing the skills, knowledge and goodwill within a 'mentor' utility to build the capacity of another utility - the 'mentee' - that needs assistance or guidance.

Through mentorship, WOPs progressively strengthen and empower the mentee operator on management, financial and technical levels to implement operational and organizational changes that will lead to better and more sustainable services.

By identifying and focusing on cross-cutting lessons from on-going WOPs, BEWOP has been producing a series of guidance tools that make WOPs easier and more effective.

WOP practitioners often report the challenges of sharing experiences and knowledge. It is common to face difficulties when interacting with practitioners from other water utilities. This is mostly because learning in WOPs does not happen in traditional set-ups. This is why we created a number of tools to facilitate interaction and sharing of knowledge.

#### Find out more:

## OPERATIONAL TOOLS

BEWOP's operational tools were co-developed and tested with water professionals involved in the daily operations of WOPs.

The overall idea behind them is to facilitate the dialogue and sharing of experiences between experts involved in WOPs.

## Risk-Based Renewal Planning for Asset Management of Water Distributions (RRPAM)



In the traditional planning of maintenance routines, focus is commonly on the state of assets. Replacements or improvements are done only when they are (known to be) about to fail.

Risk based asset management covers a wide arrange of strategies aimed at prioritizing attention to critical steps, machinery, or infrastructure in order to avoid serious failures that may impact the operation of water distribution systems.

This tool guides in the usage of an educational software tool that demonstrates an approach to renewal planning in the domain of infrastructure asset management.

## Roadmap to nonrevenue water reduction and management



This tool gives a guiding framework for not only the long-term Non-Revenue Water (NRW) management process. It is also meant to support everyone working on NRW, from trainers, managers, and team leaders, to commercial officers, technical officers, or financial advisers. The primary outcomes of using the tool are the reduction of NRW, improved customers satisfaction, improved collection, effective debt management and the affordability of water for the poorest part of the population.

## This tool offers a comprehensive NRW approach through:

- A strategic manual to give managers the complete oversight of a NRW management strategy and how to run NRW reduction pilots.
- Introductory NRW lectures (presentations) aimed at different staff members that need to be involved in the respective NRW activities.
- Practical guidance for different NRW activities meant to be led by either management, technical or commercial teams.

This guidance is done through:

- Customer survey questionnaire
- NRW task team member responsibility descriptions
- District Metered Area (DMA) checklist
- International performance assessment
- Template for business case writing, and more.

### Stakeholder Collaboration in Water Safety Plans



This tool provides users with the opportunity to experience the importance of stakeholders' engagement in Water Safety Plans (WSP), particularly in the decision making process when investing in rehabilitation and maintenance of a drinking water supply system.

The game can be used in WSP training or during an educational activity on water safety and WSP at graduate and post-graduate institutes.

## Water Utility Management



The Water Utility Management Tool has been designed as a learning game to develop awareness and knowledge of the processes of strategic planning within utilities.

This simulation game can be used as a team building or learning exercise for students, utility staff or other water professionals.

The game is played with a facilitator or trainer who guides discussions on how decisions, trade-offs, and actions play out in everyday business practice, and throws in some surprise elements.

The game draws from real cases and practical experience of experts, which allows participants to experience utilities' decision-making dilemmas in a safe environment.

## Green Utility Toolkit



The Green Utility Toolkit (GUT) is a comprehensive, step-by-step guide for formal utilities who wish to embark in the path of sustainability.

This tool recognizes the pressures and difficulties faced by water service providers (WSP) to deliver coverage and adequate levels of water services sustainably. It helps to address some adversities water service providers face when attempting to achieve the Sustainable Development Goals. Overall the tool supports users to contextualize the challenges that water utilities usually confront when becoming green: what can they do? How are they to respond to these various pressures? And, can becoming 'green' support them in engaging and solving these complex issues?

The GUT presents the driving factors behind the incorporation of environmental concerns in the context of water service provision. It also offers the foundations for a conceptual framework to assess a Green Utility in the water service sector.

#### **Financial Toolkit**

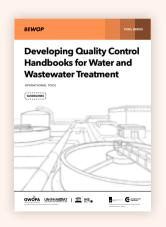


Water Service provision to low-income areas (LIAs) requires alternative service modalities that enable water services extension and outreach whilst also ensuring financial sustainability of the water utility. This difficult task has been commonly addressed by installing pre-paid water meters.

This tool helps users to better understand the financial conditions for the implementation of a pre-paid meter program. It uses a financial model projecting cash flows at the utility management level.

This toolkit consists of a financial model running on Excel and a User's Manual - aimed at guiding experienced and new water professionals through the decision-making process in the implementation of a prepaid meter program.

### Developing Quality Control Handbooks for Water and Wastewater Treatment



This manual serves as a guide for the preparation of a Quality Control Handbook for processes related to water and wastewater treatment. A Quality Control Handbook describes activities and procedures necessary to ensure the provision of quality products and services by a water utility. Proper documentation of the processes for water and wastewater treatment allows concerned employees to appropriately address, repair, and report to management any operational defects or deviations from standard operating procedures.

Such a handbook also helps supervisors and managers to monitor the implementation of required procedures and offers information on the proper way of handling defects and deviations, once they occur. Moreover, the handbook serves as a document for resolving policy disputes on quality issues, as well as a platform for discussing ways to further improve operational efficiency and product/service quality.

## Water Quality Monitoring Tool for Drinking Water Production

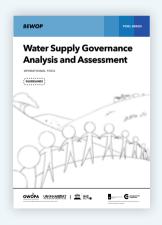


Drinking water systems supplied by surface water and groundwater are subject to contamination that may affect raw and treated water quality. Contamination by pathogenic micro-organisms or toxic chemicals can have severe impacts on public health. Indeed, the production of safe drinking water must comply with public health standards for drinking water quality.

Water quality monitoring is an integral part of drinking water supply. Establishing a monitoring programme is a highly complex task since it needs to determine the human, technical, and financial capabilities, to select the sampling points, water quality parameters, sampling frequencies and priorities, and comply with legal standards.

The objective of this tool is to help water operators decide which parameters to monitor in each step of the water treatment and distribution process, from catchment to consumers. This tool can also support local, national, and international organizations in charge of designing plans for monitoring drinking water quality.

#### Water Supply Governance Analysis and Assessment



Water issues tend to be intrinsically linked to technical challenges. This tool invites readers to consider aspects of governance alongside technical dimensions when analyzing and assessing water supply.

The tool aims to support professionals in water utilities, acting as a guideline to reflect and discuss water governance challenges and alternatives. This framework supports users to critically articulate objectives, opportunities, and challenges towards water and sanitation development.

## **Get updated**















A joint initiative of







Funded by





