CONTENTS

1. INTRODUCTION 1

2. PARTICIPATORY DEVELOPMENT OF THE PERFORMANCE IMPROVEMENT PLAN 5
   2.1 STEP 1: VISION, MISSION, AND GOALS 6
   2.2 STEP 2: PARTICIPATORY ASSESSMENT 6
   2.3 STEP 3: RANKING IMPORTANCE OF THEMES 7
   2.4 STEP 4: PLOTTING THE THEMES IMPORTANCE AGAINST THE LEVEL OF ACHIEVEMENT 11
   2.5 STEP 5: SELECT THEMES FOR SHORT – AND MEDIUM – TERM PIP, AND IDENTIFY LONG-TERM THEMES 11
   2.6 STEP 6: DEVELOPMENT AND IMPLEMENT SHORT-TERM PERFORMANCE IMPROVEMENT PLAN 13
      2.6.1 SWOT ANALYSIS 13
      2.6.2 IMPLEMENTATION OF A SHORT-TERM PERFORMANCE IMPROVEMENT ACTION PLAN 14
      2.6.3 MONITORING AND EVALUATION FRAMEWORK 16
   2.7 STEP 7: DEVELOPMENT OF A MEDIUM-TERM PERFORMANCE IMPROVEMENT PLAN 17
   3. PERFORMANCE IMPROVEMENT PLAN AND PERFORMANCE IMPROVEMENT THEMES 19
      3.1 HUMAN RESOURCES DEVELOPMENT AND MANAGEMENT 19
      3.2 INSTITUTIONAL STRENGTHENING AND GOVERNANCE 20
      3.3 POLICY AND LEGAL SUPPORT 21
      3.4 MASTER PLANNING AND BUSINESS PLANNING 21
      3.5 FINANCIAL MANAGEMENT 22
      3.6 COMMUNICATION AND CUSTOMER RELATIONS 22
      3.7 BILLING AND REVENUE COLLECTION 23
      3.8 NON-REVENUE WATER MANAGEMENT 23
      3.9 OPERATION AND MAINTENANCE 24
      3.10 ASSET MANAGEMENT 25
      3.11 INFORMATION AND COMMUNICATION TECHNOLOGY 25
      3.12 EXTENSION OF WATER SUPPLY SERVICES 26
      3.13 EXTENSION OF SANITATION AND HYGIENE SERVICES 27
      3.14 EXPANDING SERVICES TO POOR HOUSEHOLDS 27
      3.15 SUSTAINABLE WATER RESOURCES AND INTEGRATED WATER RESOURCES MANAGEMENT 27
      3.16 WATER QUALITY MANAGEMENT AND WATER SAFETY 28
      3.17 WASTEWATER TREATMENT AND REUSE 29
      3.18 WATER DEMAND MANAGEMENT AND WATER EFFICIENCY 29
      3.19 ENERGY EFFICIENCY 30
      3.20 CLIMATE CHANGE RESILIENCE 31

4. PRACTICAL GUIDELINES FOR THE DEVELOPMENT AND IMPLEMENTATION OF SHORT-TERM PIP AND DEVELOPMENT OF A MEDIUM-TERM PIP DURING A (SHORT-TERM) WOP 32

REFERENCES 45
ACKNOWLEDGMENT

This manual was developed by Dr. Mohamed Chabaane, who worked as a consultant for GWOPA on this assignment. The manual builds on the WOPs experience of several GWOPA member and partner utilities, namely National Water and Sewerage Corporation from Uganda; E-Thekwini Municipality from South Africa; Office National de l’Eau et de l’Electricité du Maroc; DUNEA, Vitens-Evides, and WorldWaterNet from the Netherlands; and Contra Costa Water District from the USA.

This manual version is a working document that will be field-tested in a set of 9 WOPs in Africa that are implemented by GWOPA and funded by the OPEC Fund for International Development (OFID). The manual will be reviewed and finalized based on the lessons learned during this process.

This work is funded in part by the Dutch government-supported BEWOP project, a collaboration between GWOPA and UNESCO-IHE to “Boost the Effectiveness of WOPs”.

Performance Improvement Plan Manual
# ABBREVIATIONS AND ACRONYMS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCC</td>
<td>Bulawayo City Council</td>
</tr>
<tr>
<td>BWS</td>
<td>Belize Water Services</td>
</tr>
<tr>
<td>CCWD</td>
<td>Contra Costa Water District</td>
</tr>
<tr>
<td>CSADF</td>
<td>Compañía de Saneamiento Ambiental de Distrito Federal</td>
</tr>
<tr>
<td>CSAC</td>
<td>Compañía Saltería de Agua y Saneamiento S.A.</td>
</tr>
<tr>
<td>FIPAG</td>
<td>Fundo de Investimento e Patrimônio do Abastecimento de Agua</td>
</tr>
<tr>
<td>GWOPA</td>
<td>Global Water Operators’ Partnerships Alliance</td>
</tr>
<tr>
<td>IWK</td>
<td>Indah Water Konsortium</td>
</tr>
<tr>
<td>KIWASCO</td>
<td>Kisumu Water and Sewerage Company</td>
</tr>
<tr>
<td>MDGs</td>
<td>Millennium Development Goals</td>
</tr>
<tr>
<td>MCWD</td>
<td>Metropolitan Cebu Water District</td>
</tr>
<tr>
<td>MWAUWASA</td>
<td>Mwanza Urban Water and Sewerage Authority</td>
</tr>
<tr>
<td>NRW</td>
<td>Non Revenue Water</td>
</tr>
<tr>
<td>NWSC</td>
<td>National Water and Sewerage Corporation</td>
</tr>
<tr>
<td>NWSSC</td>
<td>Nakuru Water &amp; Sanitation Services Company Ltd</td>
</tr>
<tr>
<td>ONEE</td>
<td>Office National de l’Eau et de L’Energie</td>
</tr>
<tr>
<td>PIP</td>
<td>Performance Improvement Plan</td>
</tr>
<tr>
<td>SDGs</td>
<td>Sustainable Development Goals</td>
</tr>
<tr>
<td>SNWSL</td>
<td>South Nyanza Water Services Ltd</td>
</tr>
<tr>
<td>SWM</td>
<td>Surinamese Waterleiding Maatschappij, Surinamese Water Company</td>
</tr>
<tr>
<td>UNSGAB</td>
<td>United Nations Secretary-General’s Advisory Board on Water and Sanitation</td>
</tr>
<tr>
<td>WECB</td>
<td>Water and Energy Company Bonaire</td>
</tr>
<tr>
<td>WSPA</td>
<td>Water Services Providers Association</td>
</tr>
<tr>
<td>WSSA</td>
<td>Water Supply and Sewerage Authority</td>
</tr>
<tr>
<td>WSSAUC</td>
<td>Water Supply and Sewerage Authority of Ulaanbaatar City</td>
</tr>
<tr>
<td>WOPs</td>
<td>Water Operator s’ Partnerships</td>
</tr>
</tbody>
</table>
1. INTRODUCTION

Public water operators currently provide over 90 per cent of the water and sanitation services globally. They are essential players for attaining the Millennium Development Goals (MDGs), and upcoming Sustainable Development Goals (SDGs), on drinking water supply and sanitation. Public water utilities in many developing countries are facing increasing pressure to improve and expand their services to meet the substantial demand for clean and safe water and improved sanitation and hygiene resulting from the rapid expansion of urban and peri-urban areas. Facing this challenge is particularly difficult when utilities lack the needed infrastructure, financial and administrative systems, and sufficiently trained managers and staff.

The United Nations Secretary-General’s Advisory Board on Water and Sanitation (UNSGAB) recommended in the Hashimoto Action Plan in 2006 building the needed technical, management and financial capacity of water operators. In an era when the money and resources available for technical assistance and training is limited, water operators’ partnerships (WOPs) were recommended as a viable mechanism to provide a win-win solution for capacity development by twinning water operators to share their experience and expertise in a not-for-profit peer support arrangement. WOPs are based on the spirit of “solidarity” between utilities to help one another improve their capacity in providing access to water and sanitation.

Former UN Secretary General Kofi Annan requested UN-Habitat to lead the development, and host the secretariat, of the global WOPs mechanism envisaged by UNSGAB. During the annual Stockholm World Water Week in August 2007, the Chair of UNSGAB, his Royal Highness, Prince Willem-Alexander of Orange, launched the Global Water Operators’ Partnerships Alliance (GWOPA) as a global mechanism to scale up WOPs. In January 2009 GWOPA held its foundation meeting in UN-Habitat headquarters in Nairobi, Kenya, at which it established a general assembly of members and an international steering committee to advise the Alliance Secretariat. Since its foundation GWOPA has been making heightened efforts to promote the scale up of WOPs worldwide, and has developed a strong alliance of water operators, UN Agencies, water associations, development partners, labor and civil society bodies, international financial institutions and the private sector. GWOPA Secretariat moved in 2013 to the UN-Habitat office in Barcelona where it has secured stable financing for the next five years.

GWOPA has carried out several studies on WOPs to assess how the partnerships are conducted, analyze success factors, identify gaps, document best practices, and develop guidance material to improve ongoing and future partnerships. These studies showed that the WOPs carried out so far vary greatly in their objectives, approach, and outcomes and that WOPs in general would benefit from a harmonized framework for the selection of WOPs activities and the development of a Performance Improvement Plan (PIP) for the WOP beneficiary utility via a systematic and participatory process. There is also a need to ensure that short-term WOPs set in motion the right conditions for a subsequent, longer-term and comprehensive utility improvement process. This Guide addresses the above-mentioned needs by providing a comprehensive and systematic process for Performance Improvement Plan development at the short-term (or within the initial short-term WOP phase), as well as at the medium-term.
What is a PIP?

A Performance Improvement Plan (PIP) is a comprehensive strategic work plan developed to address a variety of utility management issues, with the aim of improving utility performance and enabling the utility to achieve its short – and medium-term objectives. One of these objectives may be improving services to the urban poor.

A PIP enables the development a longer term view of the utility management, while at the same time ensuring that the day-to-day issues are attended to. It involves the planned application of utility resources to achieve these aims.

The PIP should encompass the two main scopes of planning – short-term and medium-term:

The short term part covers a duration of 10 to 12 months (implemented within the 1st phase WOP, also called in this manual the short-term PIP), while the medium-term part plans for a period of two to four years (also called the medium-term PIP, likely to be implemented in a second phase WOP).

A PIP is a road map to achieve stated utility objectives, and should be able to:

- Define the scope of the utility’s activities in terms of what it will do, and what it will not do
- Match the utility’s activities to the environment in which it operates, so that it optimizes opportunities and minimizes threats
- Match the utility’s activities to its resource capacity such as staff, finance, infrastructure, technology etc.

The potential benefits of developing a PIP may be summarized as following:

- It is a tool to implement significant process improvements and changes.
- It creates a platform for common understanding and focus
- It provides a benchmark for the organization through the monitoring and evaluation policy
- It leads to clear understanding of the utility’s vision, mission and objectives.
- It can bring out structural deficiencies in the utility
- It aligns the process of corporate strategic planning
- It creates a link between policies and plans for implementation
- It enhances accountability and transparency
- It creates confidence among internal and external stakeholders
- It could trigger enabling legislation
Performance Improvement Plan Manual

Year 1
- Short-term WOP
  - 1st phase
  - medium-term PIP development
  - Short-term PIP implemented
  - Submission of the PIP to donors for funding or for implementation

Funded by GWOPA, WOP-Africa, etc...

Year 2 to 3/4
- Medium term PIP
  - 2nd phase WOP
  - Implementation of the medium term PIP including:
    - Medium term capacity building activities (themes selected for medium term) through WOP
    - Long-term follow-up investment (equipment, infrastructure, etc.)

Funded by donors (development banks, cooperation agencies, etc.) as financial and technical assistance programs

Year 4/5 to...
- Long term development programs including core investments
  - Examples: massive rehabilitation programs, massive extension plans, building of new treatment plans, etc.

Funded by donors (development banks, cooperation agencies, etc.) as long-term development programs

Short-term WOP

Preparatory work
Diagnostic visit (1 week)

STEP 1: Set Vision, Mission, and Goals

STEP 2: Participative assessment

STEP 3: Rank importance of each module

STEP 4: Plot modules importance against level of achievement

STEP 5: Select modules for short-term PIP and medium-term PIP and identify long-term modules

STEP 6: Development and implementation of short-term PIP

Development
Draft draft after diagnostic visit
- Realization of short-term PIP after 1 month

Implementation of short-term PIP during the short-term WOP
- Visits by the mentor to the mentee
- Benchmarking visit by the mentor to the mentee
- Training: classroom training session + on-the-job training
- Distance follow-up by the mentor
- Reporting on progress by the mentee

STEP 7: Development of medium-term PIP

Medium-term PIP modules:
- Medium-term program through WOP
- All other CEnt resources allocated/measured against corresponding measurable objectives and indicators
- Medium-term PIP investment needs (funded by the mentor, self, and external funding)
While recognizing that the nature and extent of the WOPs activities vary with the available funding and with the mentee’s immediate needs and the mentor’s capacity to meet these needs, linking WOPs short term interventions to medium term and long term objectives is essential to sustaining the mentees performance improvement beyond the life of the WOPs. The long term foresight approach of the WOPs will help mentees in identifying activities for their business and master plans to generate follow-up investments for infrastructure improvement by the national government, donors, and/or financial institutions.

This Guide is a planning tool developed in collaboration with water operators building on lessons learnt from their WOPs experience. It provides a practical guidance tool to streamline the WOPs approach.

The Guide presents a customized step by step tool for the selection of the themes for the short term or WOP phase1, as well as the medium term and long term programs within the Performance Improvement Plan.

It also includes a comprehensive list of themes that contribute to the performance improvement of operators and which should be addressed one by one during the diagnosis phase.

Finally, the Guide stresses that the whole process of the PIP development should be performed in a participatory approach involving managers, staff, customers, community, and other relevant stakeholders. In the 4th Chapter, the WOPs practitioners will find practical guidelines on how to lead a participative diagnosis process and develop short and medium term PIPs in the framework of a WOP.

---

1 The duration of the short term phase and the selection of the modules for this phase will depend on the size of the WOP funds and the mentor capacity to meet the needs of the mentee.
2. PARTICIPATORY DEVELOPMENT OF THE PERFORMANCE IMPROVEMENT PLAN

A step by step comprehensive and systematic approach is presented herein to assist water operators in the selection of the WOPs themes (or short term PIP's themes) and the medium-term themes to be included in the mentees’ performance improvement plan, as well as in the identification of long term themes.

An overview of the themes that should be addressed in the diagnostic phase is provided in Chapter 2 of the manual. For each theme, a short description is given, including the common challenges that utilities face in that specific theme. Examples of WOPs which have targeted some specific challenges related to the theme are also provided.

- The manual explores the 20 following themes:
  - Human Resources Development and Management
  - Institutional Strengthening and Governance
  - Policy and Legal Support
  - Master Planning and Business planning
  - Financial management
  - Communication and Customer relations
  - Billing and revenue collection
  - Non-Revenue Water Management
  - Operation and maintenance
  - Asset management
  - Information and Communication Technology
  - Extension of Water Supply Services
  - Extension of Sanitation and Hygiene Services
  - Expanding services to Poor Households
  - Sustainable Water Resources and Integrated Water Resources Management
  - Water Quality Management and Water Safety
  - Wastewater Treatment and Reuse
  - Water Demand Management and Water Efficiency
  - Energy Efficiency
  - Climate Change Resilience

The approach proposed for the development of the PIP includes seven steps that should be implemented in a participatory process involving utility managers, utility staff, and stakeholders relevant to each performance improvement theme.

The seven-step procedure comprises: 1) setting vision, mission, and goals of the mentee utility; 2) performing participatory assessment; 3) ranking the importance of each theme; 4) plotting themes importance against level of achievement; 5) selecting short-term and medium-term PIP themes and identifying long-term themes; 6) developing and implementing the short-term PIP; 7) developing the medium-term PIP;
2.1  **STEP 1: VISION, MISSION, AND GOALS**

The process begins with a presentation of the mentee utility vision, mission and goals. The following example is provided for illustration.

**Vision:** be the lead water utility in the country/continent.

**Mission:** meet the needs of customers for reliable, safe and clean water and high quality sanitation and hygiene services, and offer staff a fulfilling and rewarding work experience.

**Goals:**

- Reach national MDGs for water and sanitation by 2015
- Increase revenue collection to cover O&M cost by 2016
- Reduce physical water losses to 20% by 2020
- Improve customer satisfaction by reducing customer complaints by 80% in 2017
- Establish employee professional and leadership development program in 2014
- Etc…

2.2  **STEP 2: PARTICIPATORY ASSESSMENT**

On a 1-to-5 scale, assess current conditions by rating the mentee utility’s practices and approaches and current level of achievement for each theme following the rating system in Table 1 below. Fill the rating in Table 2.

Please refer to Chapter 2 for the exhaustive list of themes which should be assessed during the process.
Table 1. Rating Description

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Effective, systematic approach and implementation; consistently achieve goals</td>
</tr>
<tr>
<td>2</td>
<td>Workable systems in place; mostly achieve goals</td>
</tr>
<tr>
<td>3</td>
<td>Partial systems in place with moderate achievement, but could improve</td>
</tr>
<tr>
<td>4</td>
<td>Occasionally addressed when specific need arises</td>
</tr>
<tr>
<td>5</td>
<td>No system for addressing this</td>
</tr>
</tbody>
</table>

2.3  **STEP 3: RANKING IMPORTANCE OF THEMES**

On a 1-to-10 scale rank the importance of each Theme to the mentee utility based on the following key points:

- Consider the utility’s vision, mission, goals, and specific needs.
- Reflect the interests and considerations of all stakeholders (managers, staff, customers, community and watershed interests, and other relevant stakeholders).
- Consider long-term needs and sustainability of water and sanitation services.

Give the most important Theme rank 1 and the least important Theme rank 10.

**Table 2 Rating and Ranking Matrix**

NB: Utilities can add more components in each PIM.

<table>
<thead>
<tr>
<th>Performance Improvement Themes (PIMs)</th>
<th>PIM Components</th>
<th>Step 1: Rate Achievement (1-5)</th>
<th>Step 2: Rank Importance (1-10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Resources Development (HR)</td>
<td>• Recruitment and retention of competent workforce.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Opportunities for training and professional development.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Appropriate wages and incentives.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Appropriate performance evaluation system.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Ongoing performance improvement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance Improvement Themes (PIMs)</td>
<td>PIM Components</td>
<td>Step 1: Rate Achievement (1-5)</td>
<td>Step 2: Rank Importance (1-10)</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>----------------</td>
<td>-----------------------------</td>
<td>-----------------------------</td>
</tr>
</tbody>
</table>
| **Institutional Strengthening and Governance (IS)** | • Functions and responsibilities streamlined.  
• Collaborative organization, employees involved in the decision making processes.  
• Employees satisfied and motivated. | | |
| **Policy and Legal Support (PL)** | • Policies for performance improvement are developed and implemented.  
• Legal incentives for performance improvement are developed and enforced. | | |
| **Business Planning (BP)** | • Comprehensive master plan that guides long-term, mid-term, and short-term programs.  
• Business plans with a clear vision, mission, objectives, and achievements.  
• Investment options elaborated in the master planning and business planning processes. | | |
| **Financial Management (FM)** | • Full-cycle cost of utility understood.  
• Accounting and procurement policies and procedures established.  
• Financial risk assessment tools established.  
• Predictable and adequate rates. | | |
| **Communications and Customer Relations (CR)** | • Responsiveness to customers’ needs and emergencies.  
• Effective awareness, communication, and outreach programs to inform the public about new programs and initiatives. | | |
| **Billing and Revenue Collection (BC)** | • Effective billing and revenue collection operation.  
• Effective and up-to-date billing payment systems.  
• Reliable water meter reading program. | | |
<table>
<thead>
<tr>
<th>Performance Improvement Themes (PIMs)</th>
<th>PIM Components</th>
<th>Step 1: Rate Achievement (1-5)</th>
<th>Step 2: Rank Importance (1-10)</th>
</tr>
</thead>
</table>
| Non-Revenue Water Management (NRW)   | • Physical water losses are effectively monitored.  
• Time response to leak repairs is reduced to minimize disruption and water losses.  
• Procedures to reduce illegal water connection are in place.  
• Commercial water losses are insignificant. | | |
| Operation and Maintenance (OM)       | • Technical and safety procedures for the O&M of water and wastewater treatment plans are developed and implemented by certified operators.  
• Emergency planning and operating procedures are developed and enforced.  
• Water distribution SCADA systems are adopted.  
• Ongoing performance improvement | | |
| Asset Management (AM)                | • Inventory of infrastructure location, condition, value, O&M updated and computerized  
• Effective systems for security and safety of assets.  
• Effective planning for infrastructure improvement projects | | |
| Information and Communication Technology (IT) | • Utility taking advantage of advances of ICT to develop smart solutions to improve operation in all the departments. | | |
| Extension of Water Supply Services (WS) | • MDGs and Sustainable Development Goals (SDGs) on drinking water supply achieved  
• Plans and investment options for sustained water supply services developed | | |
| Extension of Sanitation Services (SS) | • MDGs and Sustainable Development Goals (SDGs) on sanitation achieved  
• Plans and investment options for sustained sanitation services developed | | |
<table>
<thead>
<tr>
<th>Performance Improvement Themes (PIMs)</th>
<th>PIM Components</th>
<th>Step 1: Rate Achievement (1-5)</th>
<th>Step 2: Rank Importance (1-10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expanding Services to Poor Households (PH)</td>
<td>• Extending water and sanitation services and improving hygiene awareness of poor households in poor settlements using internal resources.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Scaling up poor household services via national and international solidarity programs.</td>
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<td></td>
</tr>
<tr>
<td>Wastewater Treatment and Reuse (WT)</td>
<td>• Effective wastewater treatment program</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Opportunities for treated wastewater reuse increased</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sustainable Water Resources and Integrated Water Resources Management and IWRM (WM)</td>
<td>• Freshwater withdrawals are brought in line with sustainably available water resources while increasing water productivity by all uses.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Threshold level of environmental flows in the country maintained.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Availability of water supply ensured through long term IWRM program for groundwater and surface water sustainability.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Quality Management and Water Safety (WS)</td>
<td>• Water quality improvement programs developed and executed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Water safety plans developed and implemented.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Demand Management (DM)</td>
<td>• Water demand management promoted through public education and awareness and water saving technology.</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>• Water use efficient best practices guides developed for urban users.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Long term water use efficiency plans developed to implement water conservation interventions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Energy Efficiency (EE)</td>
<td>• Energy efficiency audits carried out to identify opportunities for energy saving across the water supply chain from the water sources to the end users.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Long term energy efficiency plans developed to implement energy conservation interventions.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2.4 STEP 4: PLOTTING THE THEMES IMPORTANCE AGAINST THE LEVEL OF ACHIEVEMENT

Insert each Theme acronym in Table 3 below based on the rating and ranking filled in Table 2. For instance, if Human Resources Development (HR) is rated 5 for achievement and is ranked 1 for importance, you place it in the table as shown below. Likewise, if Asset Management (AM) is rated 3 for achievement and is ranked 5 for importance, you place it in the graph as indicated below.

Table 3. Themes ranking and rating table

<table>
<thead>
<tr>
<th>Rating</th>
<th>5</th>
<th>HR</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>AM</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td>More Important</td>
<td>Less Important</td>
</tr>
</tbody>
</table>

2.5 STEP 5: SELECT THEMES FOR SHORT – AND MEDIUM – TERM PIP, AND IDENTIFY LONG-TERM THEMES

It should be emphasized that performance improvement in all the themes of 20 Themes is important for the overall performance improvement of the utility, and the sustainability of its services. However, for practical and financial reasons utilities may wish to focus on a selected number of Themes that have priority over the rest. Table 3 that was developed in Step 4 helps the mentees in prioritizing these Themes. The Themes that
are plotted in the upper-left quadrant of Table 3 are the Themes that are ranked as most important with low achievement. Therefore, they are the Themes that need to be addressed by the mentee utility most urgently.

The mentee utility, with the support of the mentor utility, should then select the Themes to work on within the short-term WOP. Note that Themes selected for short-term action are the ones to be addressed by the WOP in terms of low-cost fast improvement measures. Medium-term improvement will be the focus of the medium-term PIP (performance improvement plan) that will be developed collaboratively by the mentor and the mentee to be ready at the end of the short-term WOP.

The development of the long-term PIP is beyond the scope of the short-term WOP phase, as it will be carried out during the implementation of the medium-term phase.

Selected Themes for short-term, medium-term, and long-term improvement should be recorded in Table 4 below. For example, if Human Resources Development (HR) is selected for improvement within the short-term WOP, enter it in Table 4 in the short-term column. Likewise, if Policy and Legal Support (PL) is selected for medium-term, enter it in Table 4 as indicated below. Note that if a Theme is selected for improvement at short-term or within the WOP, improvement could continue for the medium-term and the long-term horizons.

Table 4. Theme Selection

<table>
<thead>
<tr>
<th>Performance Improvement Themes (PIMs)</th>
<th>Short-Term (WOP)</th>
<th>Mid-Term</th>
<th>Long-Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Resources Development (HR)</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Institutional Strengthening and Governance (IS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Policy and Legal Support (PL)</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Business Planning (BP)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Financial Management (FM)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Communications and Customer Relations (CR)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Billing and Revenue Collection (BC)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non Revenue Water Management (RW)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operation and Maintenance (OM)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asset Management (AM)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information Communication Technology (IT)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extension of Water Supply Services (WS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extension of Sanitation Services (SS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expanding Services to Poor Households (PH)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Performance Improvement Themes (PIMs)

<table>
<thead>
<tr>
<th>Performance Improvement Themes (PIMs)</th>
<th>Short-Term (WOP)</th>
<th>Mid-Term</th>
<th>Long-Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wastewater Treatment and Reuse (WT)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sustainable Water Resources and Integrated Water Resources Management and IWRM (WM)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Quality Management and Water Safety (WS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Demand Management (DM)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Energy Efficiency (EE)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Climate Change Resilience (CC)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 2.6 STEP 6: DEVELOPMENT AND IMPLEMENT SHORT-TERM PERFORMANCE IMPROVEMENT PLAN

This exercise will focus on the development of the short-term or WOP phase PIP. Based on the selection of the Themes for short-term or WOP phase done in Table 4, proceed with the preparation of a short-term performance improvement plan, to be implemented during the WOP phase, with the participation of the utility managers, staff, and stakeholders relevant to each of the selected Themes. The short-term PIP would include the following items:

- Utility SWOT analysis for selected each Theme to identify strengths, weaknesses, opportunities, and threats for performance improvement.
- Performance improvement action plan for each Theme that includes underlying root causes or issues of under-performance, actions to address these issues, by whom, when, and cost of the action.
- Monitoring and evaluation plan to assess and monitor the accomplishments of these actions.

The short term WOP should set in motion the interventions for a subsequent medium-term PIP. Work on the preparation of the medium-term PIP interventions will progress in a parallel track during the implementation of the short-term WOP. The medium-term PIP is one of the key deliverables of the short-term WOP phase.

### 2.6.1 SWOT ANALYSIS

Develop a SWOT analysis for each of the Themes selected for short-term performance improvement plan during the WOP, in STEP 5 above. Two illustrative examples are provided in Tables 5 and 6 below respectively for the human resources development Theme and the billing and revenue collection Theme.

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2 Note that the illustrative examples are presented to help the reader to understand the short-term or WOP performance improvement plan development process.
Table 5. Illustrative SWOT for Human Resources Development Theme

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Adequate number of staff</td>
<td>• Limited number of qualified staff</td>
<td>• High potential for capacity building</td>
<td>• Political interference in staff recruitment and advancement</td>
</tr>
<tr>
<td>• Staff eager to improve their capacity and skills</td>
<td>• Poor time management</td>
<td>• Willingness of management and staff for improvement.</td>
<td></td>
</tr>
<tr>
<td>• Adequate team working capabilities</td>
<td>• Lack of training program for professional development</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Ability to share knowledge and experience</td>
<td>• Lack of adequate recruitment procedure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Staff welfare policy in place.</td>
<td>• Staff welfare policy not enforced</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Inadequate staff evaluation procedure, lack of incentives mechanism.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6. Illustrative SWOT for Billing and Revenue Collection Theme

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Skilled staff for billing function</td>
<td>• Manual billing system</td>
<td>• Many customers are not in the billing system</td>
<td>• Low water tariff</td>
</tr>
<tr>
<td>• Adequate billing records</td>
<td>• Many customers are not metered. They are charged a flat rate</td>
<td>• Computerization of billing system</td>
<td>• Payment of government customers not guaranteed</td>
</tr>
<tr>
<td>• Accurate billing calculation</td>
<td>• Inaccurate and untimely meter readings</td>
<td>• Mapping of meter connection</td>
<td></td>
</tr>
<tr>
<td>• Good coordination between meter readers and billing office</td>
<td>• Many dysfunctional meters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Monthly billing system</td>
<td>• Many illegal water connections</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Unreliable water supply</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.6.2 IMPLEMENTATION OF A SHORT-TERM PERFORMANCE IMPROVEMENT ACTION PLAN

Develop an action plan for each of the Themes selected for short-term PIP within the WOP, in STEP 5 above. Two illustrative examples are provided in Tables 7 and 8 below respectively for the billing and revenue collection Theme and for the human resources.
Table 7. Illustrative Example of short-term Performance Improvement Action Plan for Hunan Resources Development Theme

<table>
<thead>
<tr>
<th>Issue (s) and Cause (s)</th>
<th>Action (s)</th>
<th>By Who</th>
<th>When</th>
<th>Cost Kshsx1000</th>
</tr>
</thead>
</table>
| • Lack of qualified staff | • Identify training needs  
• Design training program  
• Implement training program | • Head of Training Unit (HTU)  
HTU  
HTU | • 31 Mar 2014  
• 30 Apr 2014  
• 30 Jun 2014 | • NIL  
• NIL  
• 10,000 |
| • Inadequate recruitment policy | • Develop appropriate recruitment policy | • Head of Human Resources Department (HRRD) | • 30 May 2014 | • NIL |
| • Lack of mechanism to enforce staff welfare policy | • Develop welfare policy development mechanism | • Utility Legal Advisor | • 15 June 2014 | • NIL |
| • Inadequate staff evaluation procedure | • Improve staff evaluation procedure including incentives for achievers. | • HRRD | • 30 May 2014 | • NIL |

Table 8. Illustrative Example of short-term Performance Improvement Action Plan for Billing and Revenue Collection Theme

<table>
<thead>
<tr>
<th>Issue (s) and Cause (s)</th>
<th>Action (s)</th>
<th>By Who</th>
<th>When</th>
<th>Cost Kshsx1000</th>
</tr>
</thead>
</table>
| • Delayed bills delivery | • Timely meter readings  
• Speeding bills preparation  
• Door to door bill delivery | • Meter Readers  
Billing Clerks  
Meter Readers | • 24th day of month  
• 30th day of month  
• 30th day of month | • NIL  
• NIL  
• NIL |

3 NWSC-SNWSL WOP with modifications.
<table>
<thead>
<tr>
<th>Issue (s) and Cause (s)</th>
<th>Action (s)</th>
<th>By Who</th>
<th>When</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inaccurate meter readings</td>
<td>Carry out meter reading audits</td>
<td>Internal Auditor</td>
<td>31 Mar 2014</td>
<td>NIL</td>
</tr>
<tr>
<td>Dysfunctional meters</td>
<td>Faulty meters replacement</td>
<td>Managing Director</td>
<td>30 Jun 2014</td>
<td>35,000</td>
</tr>
<tr>
<td>Many customers not metered</td>
<td>Meters purchase and installation</td>
<td>Managing Director</td>
<td>30 Jun 2014</td>
<td>50,000</td>
</tr>
<tr>
<td>Inadequate system for following up on arrears</td>
<td>Encourage customers with high arrears to pay in installments, Legal action can be taken for non payers</td>
<td>Commercial Manager</td>
<td>Routine</td>
<td>NIL</td>
</tr>
</tbody>
</table>

2.6.3 MONITORING AND EVALUATION FRAMEWORK

The Monitoring and Evaluation (M&E) framework is essential in providing a systematic mechanism for the mentees and mentors to effectively monitor and evaluate the implementation of the developed short-term PIP. The following guidelines can help in developing a sound M&E framework with specific goals, sound performance indicators tailored to the short-term PIP interventions:

1. Engage the mentee utility at all levels in developing, tracking, and reporting the results of the M&E plan.
2. Assign someone in the mentee utility the role of championing and coordinating the M&E activities.
3. Assign someone in the mentor utility to backstop the development of the M&E plan and oversee its implementation.
4. Define an overall objective for the implementation of the performance improvement plan.
5. Select measurable and sound performance indicators.
6. Develop a clear and concise definition of each indicator.
7. Indicate the unit of measurement of each indicator.
8. Provide a baseline of each indicator.
9. Set targets for each indicator based on usual sector performance. Targets should be set for the WOP phase as well as the medium-term horizon to link and sustain the short-term PIP actions beyond the WOP life setting in motion opportunities to generate follow-up investments for infrastructure improvement by the national government, donors, and financial institutions.

10. Report achievement/result of each indicator.

11. Identify who is responsible for collecting the data, and how the data will be measured.

12. Set the frequency of data reporting for each indicator. Monthly reporting is recommended for the WOP phase. Then, the reporting frequency can be fine-tuned over time to balance the level of measurement effort with the cost and benefit of the mentee.

13. Regularly review the performance measurement system for opportunities to improve.

14. Remember to celebrate your measured and documented successes and encourage achievers.

2.7 STEP 7: DEVELOPMENT OF A MEDIUM-TERM PERFORMANCE IMPROVEMENT PLAN

The medium-term PIP is developed, as mentioned earlier, during the implementation of the short-term WOP phase to ensure continuity of the mentee utility performance improvement process beyond the life cycle of the short-term WOP. The medium-term PIP would include continued support for selected short-term Themes, if needed, in addition to the Themes selected for medium-term improvement in Table 4 (Section 3.5).

The medium-term PIP development will entail the following:

- Selection of the WOP or short-term Themes to be carried over to medium-term phase;
- Selection of the new Themes for the medium-term phase (from Table 4, Section 3.5);
- SWOT analysis for the above selected Themes;
- Development of a medium-term performance improvement action plan, over a 2-3 years period, for each of the above Themes.
- Monitoring and evaluation plan to assess and monitor the accomplishments of these actions following a similar M&E framework to the one presented in section 3.6.3

The medium-term PIP shall take the form of a Project Document that would encompass the developed 2-4 year performance improvement action plans for all selected Themes, as well as the technical assistance and capacity building interventions needed by the mentee utility for successful implementation of these action plans. The Project Document (or medium-term PIP) shall also include any mentee utility infrastructure development needs that could be associated with the medium-term performance improvement process to ensure its sustainability and long-term impact.

The outline of the medium-term PIP Project Document, which would be used to solicit financial support from potential donors and regional/international financial institutions for the PIP implementation by the mentee utility with the mentor support, should be as follows:

Outline of the medium-term PIP report

1. Introduction/Background

A short introduction with a brief background of the mentee utility covering for example its main features, mandate, service area, served citizens, legal status, etc.
2. **Assessment: Current Status**
   
a. A comprehensive description of the mentee utility current status, including the participatory assessment of the utility.

b. Themes selected for medium-term performance improvement plan based on the participatory assessment (including those that could be carried over from the short-term WOP phase)

NB: The selection process of the Themes (table 4 to table 6) should be included in an annex.

3. **Performance Improvement Action Plans**
   
a. Proposed action plans, with agreed targets, for all selected Themes.

b. Technical assistance and capacity building interventions needed to help implement these action plans, as well as any infrastructure development needs associated with these action plans.

NB: tables 7 and 8 for each Theme should be included in an annex.

4. **Project Log-frame and M&E framework**
   
a. Log-frame including objectives, activities, outputs, outcomes, and indicators

b. Monitoring and evaluation framework with clear evaluation criteria including mid-term and final project evaluation

5. **Project implementation Schedule and estimated budget**
3. PERFORMANCE IMPROVEMENT PLAN AND PERFORMANCE IMPROVEMENT THEMES

This guide is an opportunity for water operators to broaden their performance improvement scope. The performance improvement Themes presented herein cover areas related to the regular utility operations such as human resources, financial management, billing and revenue collection, non-revenue water, operation and maintenance, asset management, and customer relations. They also comprise other areas related to the water SDGs such as the sustainable use and development of water resources, and water quality and wastewater management in addition to climate change resilience, efficient water and energy use, governance, policy and regulations, information and communication technology, etc.

The twenty Themes presented hereafter are not listed in a particular order, but rather can be viewed as a comprehensive list of opportunities to select priorities for improvement at the WOP phase and at medium term and long term phases.

• Human Resources Development
• Institutional Strengthening and Governance
• Policy and Legal Support
• Master Planning and Business Planning
• Financial Management
• Communication and Customer Relations
• Billing and Revenue Collection
• Non Revenue Water (NRW) Management
• Operation and Maintenance
• Asset Management
• Information Communication Technology
• Extension of Water Supply Services
• Extension of Sanitation and Hygiene Services
• Expanding Services to Poor Households
• Sustainable Water Resources and Integrated Water Resources Management
• Water Quality Management and water safety
• Wastewater Treatment and Reuse
• Water Demand Management and Water Efficiency
• Energy Efficiency
• Climate Change Resilience

Each Theme is defined below with potential WOPs interventions for performance improvement. Each Theme description includes an illustration of relevant good practices selected from WOPs identified in collaboration with WOPs operators.

3.1 HUMAN RESOURCES DEVELOPMENT AND MANAGEMENT

Water and sanitation operations cannot improve without a qualified staff and an effective working environment. Many utilities in developing countries are facing the challenge of shortage of skilled staff, low wages and lack of incentives to encourage performers, insufficient training and professional development, and inadequate employee evaluation system.

Significant efforts have been made through WOPs to enhance mentees’ staff skills through formal and hands on training, improve employees’ satisfaction and motivation, and introduce procedures and practices to improve their productivity and human resources management. WOPs’ case studies and interviews of mentor utilities revealed that WOPs have also contributed to boosting the moral of mentors’ employees and assisted indirectly in attracting new university graduates to their organizations. This win-win situation can be further developed to provide comprehensive and long-term solutions for the improvement of the mentees human resources performance.
3.2 INSTITUTIONAL STRENGTHENING AND GOVERNANCE

Streamlined structure where the functions and responsibilities of the utility activities are well defined and where employees are part of the decision making process is vital to the success and growth of water operators. Inadequate organizational structure with overlapping functions and responsibilities and lack of collaborative decision making process are among the major challenges faced by many utilities in developing countries.

Institutional reforms and good governance have helped utilities to move from being mentees within WOPs arrangements to become highly successful mentors in Africa. WOPs have assisted mentees to strengthen their organization structure and improve employees’ participation in the decision making process. WOPs can significantly advance and strengthen institutional reforms and participatory governance of water utilities using proven approaches of change management.

Employee Satisfaction

Dunea N.V. (Netherlands)–Mwanza Urban Water and Sewerage Authority, MWAUWASA (Tanzania) WOP: The Employee Satisfaction Survey explored current satisfaction in terms of working time and payment, organization of work tasks, work environment, and health safety. The survey produced recommendations on interventions on how to improve employee satisfaction in MWAUWASA. An evaluation survey will be done by the partners in the last year of the WOP to measure the results of the implementation of the recommended interventions.

3.3 POLICY AND LEGAL SUPPORT

Water utilities need an enabling policy and legal environment that supports and encourages holistic and integrated approaches for sustainable performance improvement. The lack of appropriate policies and regulations can be an obstacle to necessary utilities’ activities such as organizational restructuring, tariff reform, revenue collection, and water conservation. WOPs can play a significant role in assisting national institutions and relevant stakeholders to develop policies, regulatory mechanisms and regulatory incentives to support organizational reforms, financial management, collection of revenue, water and energy conservation, and water resources and water quality protection.

Moreover, some national policies and regulations may be an obstacle to knowledge sharing with international water operators. GWOPA is making efforts to promote easing national policies and legislations towards sharing knowledge and experience related to water and sanitation. This is essential to the scaling up of water operators partnerships.

### Legal Constraints to Institutional Reform

City West Water, Melbourne (Australia)–Metropolitan Cebu Water District (Philippines) WOP: City Waste Water assisted MCWD in the first stage of organizational restructuring that would lead to the creation of a service department to improve MCWD’s performance in customer relationship. Local legal and social factors limited MCWD’s ability to implement a large scale organizational reform program. To Resolve this issue MCWD decided to engage stakeholders in the future to increase their involvement in the decision making process to raise awareness of the benefits of an organizational restructuring plan within the utility.


3.4 MASTER PLANNING AND BUSINESS PLANNING

Many utilities in developing countries have limited planning capabilities. Assisting these water utilities in developing their master plans and business plans will help them address today’s issues and get ready for the future. Master plans usually include long term water demand forecasts, water storage, treatment, and delivery systems to meet demands, and water and wastewater conveyance and treatment. It also covers the institutional, financial, managerial, and technical requirements for implementation of the planned programs.

WOPs would help operators to adopt a more comprehensive approach for the preparation of master plans to integrate for instance IWRM, climate resilience and options for financing rehabilitation and extension of water supply and sanitation systems. Based on the comprehensive master plan, WOPs can also assist in developing business plans with a clear vision, mission, values, and measurable goals to guide performance improvement and investments for the extension of water and sanitation services. Involving financial institutions and development partners in the preparation of master plans and business plans can pave the way for utilities to access potential funding for follow up investments. GWOPA plays a financial brokering role, linking utilities that have benefited from a WOP with financial institutions able to support follow-up investments.

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4 Including addressing illegal connection and non-payment of water bills.
Comprehensive Master Plan

eThekwini Water and Sanitation (South Africa)–Bulawayo City Council (Zimbabwe) WOP: eThekwini assisted BCC in guiding, reviewing, and monitoring the development of the City of Bulawayo water and wastewater Master Plan. The Master Plan objective is to provide the City of Bulawayo with a basis for planning, sourcing funding and implementing renewal, remedial upgrading and other interventions aimed at improving the provision of potable water and wastewater conveyance and treatment. The Master Plan includes planning for rehabilitation, renewal and expansion of water and wastewater infrastructure in addition to other topics such as technical guidelines and standards, O&M systems, tariff policy and structures, billing, and recommendations on organization structure, change management, salary review, performance management, gender mainstreaming and staff retention. (Source: interview)

3.5 FINANCIAL MANAGEMENT

Financial resources are central to the operation of a water utility. Water utilities can sink or swim based on their financial standing. A large number of utilities in developing countries are not able to cover even their operation and maintenance costs and are losing money due to poor financial management.

WOPs can assist in improving the management of utilities financial functions such as budgeting, accounting and procurement policies and procedures, payroll management, expenditure procedures, revenues-expenditures monitoring, tariff adequacy, financial forecasting, internal audits, and debt management.

Improved Financial Management

Vitens Evides International (Netherlands)–Water Supply and Sewerage Authority of Ulaanbaatar City (Mongolia) WOP: Vitens and WSSAUC jointly reviewed and analyzed the Water Supply and Sewerage Authority of Ulaanbaatar City’s financial position, accounting systems and procedures and found that revenues were insufficient to cover operational costs and depreciation in 2009 and 2010. Debt repayments to the World Bank and the Spanish Government due in 2009 remained unpaid. Vitens Evides International helped Ulaanbaatar water authority develop a financial forecasting model, design improvements for tariff increases. Vitens-Evides International advised that Ulaanbaatar water authority seek to 1) aim for full cost recovery and increase tariffs annually until their costs are covered and 2) find a solution to deal with debts. Vitens Evides International’s financial expert visited the Water Supply and Sewerage Authority of Ulaanbaatar City each half year to review the financial figures, income statements and balance sheet for the preceding six month period. The authority’s finance department staff has had sufficient training both in Mongolia and in the Netherlands to make the financial analyses themselves.


3.6 COMMUNICATION AND CUSTOMER RELATIONS

Many water utilities are benefiting from improving their communication with customers and from engaging them in their planning and decision making process. Some of these utilities in Northern countries have been able to build on the satisfaction of their customers to convince them to donate funds to finance access to water and sanitation for poor communities in developing countries. On the other hand, many water operators lack the capacity to cope with customers’ dissatisfaction. WOPs can assist these operators in developing and implementing communication and outreach programs to achieve higher levels of customer satisfaction, enhance their quality of services, and promote sanitation and hygiene improvement.
Call Center-Improving Customer Care Service

National Water and Sewerage Corporation (Uganda)–Kisumu Water and Sewerage Company (Kenya) WOP: NWSC assisted KIWASCO in establishing a min-call center to address KIWASCO customers’ dissatisfaction about the long delays for the repair of water distribution leaks. NWSC also trained KIWASCO staff on the operation of the center. The center helped KIWASCO in reducing the leaks repair response time from 24 hours to 16 hours during its first few months of operation. The center is also helping KIWASCO to promote households’ connection to the sewerage system by reaching out directly to customers with the objective of increasing connections from 35% to 65%.


3.7 BILLING AND REVENUE COLLECTION

Effective billing and revenue collection has an immediate impact on the financial health of a utility. Many utilities in developing countries have inadequate billing and revenue collection systems.

WOPs have been successful in making effective and low cost interventions to improve billing and revenue collection by bringing proven and up-to-date practices to enhance billing accuracy, streamline customer database management, solve customers’ billing queries, modernize billing payment systems, repair malfunctioning meters, train and incentivize water meter readers, and develop specific strategies to address illegal connection and non-payment of water use by government agencies.

Effective and Low cost improvement

Dunea N.V. (Netherlands)–Mwanza Urban Water and Sewerage Authority (Tanzania) WOP: Prior to the WOP commercial losses were estimated at about 30% of the billable production. The main causes included unread and faulty (non-functional and slow-running) water meters, illegal connections, and undelivered bills. Dunea N.V. assisted MWAUWASA in replacing the manual recording of water reading with electronic recording via hand-held units, cleaning and updating the customers database, adjusting meter readers’ routes, introducing Smart Billing Manager software , constructing an effective and low-cost meter repair workshop, and addressing the issue of the 3,000 customers that are not allowing access to premises for meter-reading. These interventions have significantly improved revenue collection.


3.8 NON-REVENUE WATER MANAGEMENT

Non-Revenue Water (NRW) is defined as the difference between the amount of water put into the distribution system and the amount of water billed to consumers. NRW is comprised of the following three components:

Physical (or real) losses resulting from leakage from all parts of the water network systems that are located before the customers’ meters and overflows at the utility’s reservoirs. They are caused by poor operations and maintenance, the lack of active leakage control, and poor quality or aging water infrastructure.

---

Commercial (or apparent) losses are caused by customer meter under-registration, data handling errors, and theft of water in various forms.

Unbilled authorized consumption includes water used by the utility for operational purposes, water used for firefighting, and water provided for free to certain consumer groups.6

One of the major challenges facing water utilities in many developing countries is the high level of NRW that can exceed 50% of the supplied water. High levels of NRW lead to low levels of efficiency. When a large part of the utility’s water is lost, water sales decrease and substantial capital expenditure programs are needed to meet the ever-increasing demand. Funding of these programs requires viability of financial investment, which is not the case for utilities with low level of performance. In short, this is a vicious cycle that does not address the core problem.

In fact, NRW management is not a one-off activity, but one requiring a long-term commitment and involvement of all water utility departments.7 Reducing NRW is not about solving an isolated technical problem, but is instead tied to several activities including human resources skills and management, governance, planning and financial management, billing and revenue collection, asset management, operations and maintenance, network information, communication and customer support, financial allocations.

This integrated approach can support WOPs in advancing management of NWR by preparing and implementing short-term, medium-term, and long-term programs to reduce NRW. Water saved through reduction of physical water losses would serve additional customers, postpone the need for investing in new sources, lower operating costs, and generate more revenue.

**Non-Revenue Water Reduction**

Vitens Evides International (Netherlands)–Water Services Providers Association (Kenya) WOP: Vitens assisted WSPA in improving key performance indicators to reduce their current NRW (45%) through implementation of best practices. Best practices were demonstrated in a pilot District Metering Area to reduce NRW to 20%.


### 3.9 OPERATION AND MAINTENANCE

Operation and maintenance (O&M) is one of the most challenging tasks for water operators. Aging infrastructure requires increased budget for their maintenance and repairs. Customer demand, for immediate service/response, impacts staffing and equipment costs and allocations. O&M of water and wastewater systems requires expenditure, technical and management skills, and technical and safety procedures.

WOPs can assist water operators to improve planning and scheduling maintenance, emergency planning and operating procedures, water distribution SCADA systems, operators and employees’ safety, O&M efficiency in water and wastewater treatment, and support certification of operators.

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6 Contrary to physical and commercial losses, unbilled authorized consumption does not reflect operational inefficiencies but a public policy decision to allocate water without monetary compensation.

7 The Manager’s Non-Revenue Water Handbook.

Operators Training and Certification

Contra Costa Water District (USA)–Belize Water Services (Belize) WOP: BWS has set a goal to have all fresh water treatment operators certified through programs equivalent to that provided by American Water Works Association (AWWA). BWS is pursuing options for water treatment operator training, including offering assessment testing to existing staff to determine additional training needs. CCWD provided resources and contacts to assist in training of current BWS staff and training program development. Additional development of this element to establish a complete training program is recommended. CCWD can continue to contribute to this program through recommendation and review of training materials. Additional training visits to BWS by CCWD water treatment staff could also benefit this program as it develops.

http://gwopa.org/wop-profiles/3593-international-water-partnership-between-belize-water-services-and-ccwd

http://gwopa.org/images/congress_PDF/WOP_between_Belize_Water_Services_and_Contra_Costa_Water_District.pdf

3.10 ASSET MANAGEMENT

Efficient asset management can bring several short – and long-term benefits to the utility including: 1) increased knowledge of the location of the assets, 2) better decisions on when to repair, replace, or rehabilitate particular assets, 3) prolonged asset life, improved emergency response, 4) improved operation efficiency, 5) improved security and safety of assets, 6) better communication with customers to increase acceptance of tariffs based on sound operational information, 7) informed capital improvement projects that meet the true needs of the system, 8) reduced overall costs for both operations and capital expenditures, and 9) long-term funding strategy for sustained water and sanitation services. Most water operators in developing countries lack the capacity to manage their assets appropriately. WOPs can assist them to improve the management of their assets and benefit from the above merits.

Streamlining Asset Management

Contra Costa Water District (USA)–Belize Water Services (Belize) WOP: Using the CCWD asset management as a model, the BWS Operations Department, with advice from CCWD, is taking steps to streamline efficiency in its own asset management. Can you give some examples?

http://gwopa.org/wop-profiles/3593-international-water-partnership-between-belize-water-services-and-ccwd

http://gwopa.org/images/congress_PDF/WOP_between_Belize_Water_Services_and_Contra_Costa_Water_District.pdf

3.11 INFORMATION AND COMMUNICATION TECHNOLOGY

Water utilities are progressively taking advantage of advances in Information and Communication Technology (ICT) to develop smart solutions to improve payroll and human resources management, streamline contract processing and asset management, speed up billing and water collection using smart water meter reading and online payment, improve leak detection and enhance operation and maintenance, foster communication with
customers, gather real time data about water supply and demand to increase water efficiency, and advance e-governance and e-learning. WOPs can help in sharing proven ICT solutions between water utilities.

**Several ICT Solutions in one WOP**

Contra Costa Water District (USA)–Belize Water Services (Belize) WOP: CCWD assisted BWS to adopt the following IT solutions:

- **Internal Customer Service Improvements** – Inspired by the CCWD IT service catalog, the BWS IT Department has developed a “help desk” with web interface to receive and track BWS staff requests for service.
- **WEB-Based Meter Reading System** – Based on visits to CCWD, BWS implemented a new meter reading system that is Web-based.
- **Virtualization Project for Servers** – Being at CCWD allowed the IT Manager to see a detailed example of virtualization in action.

http://gwopa.org/wop-profiles/3593-international-water-partnership-between-belize-water-services-and-ccwd

http://gwopa.org/images/congress_PDF/WOP_between_Belize_Water_Services_and_Contra_Costa_Water_District.pdf

**3.12 EXTENSION OF WATER SUPPLY SERVICES**

Many water operators in developing countries are facing challenges to meet the MDGs for water supply. This PIP guide will assist mentees to take advantage of short-term WOPs to be institutionally prepared for water service extension and to pave the way towards generating follow-up financing by the government, donors, and financial institutions for rehabilitation and expansion of infrastructure to extend water supply services. Familiarity with the government water sector strategy and strategies of donors and financial institutions in water and sanitation prior to the planning of the WOP and the involvement of these actors and partners at the development stage of the WOP would increase opportunities for follow up investments.

**Supporting extension of water services**

eThekwini Water and Sanitation (South Africa)–Bulawayo City Council (Zimbabwe) WOP: eThekwini assisted BCC in guiding, reviewing, and monitoring the development of the City of Bulawayo water and wastewater Master Plan that includes rehabilitation and expansion of water supply infrastructure.

Vitens Evides International (Netherlands)–FIPAG (Mozambique) WOP: Vitens assisted FIPAG in the management and planning of the construction and other work for the extension of water supply services financed by the AfDB investments.

3.13 EXTENSION OF SANITATION AND HYGIENE SERVICES

Many water/sanitation operators in developing countries will not meet the MDGs for sanitation by 2015. Donors are gearing up for making substantial funding for sanitation and hygiene. This PIP guide will assist mentees to use short-term WOPs to get the needed institutional capacity for sanitation service extension, and to identify funding opportunities to extend and sustain sanitation and hygiene services for all.

**WOPs paving the way for increased access to sanitation**

eThekwini Water and Sanitation (South Africa)–Bulawayo City Council (Zimbabwe) WOP: eThekwini assisted BCC in guiding, reviewing, and monitoring the development of the City of Bulawayo water and wastewater Master Plan that includes rehabilitation and expansion of sanitation infrastructure.


Indha Water Konsortium (Malaysia) –PDAM Tirtanadi-Medan (Indonesia) WOP: IWK helped PDAM develop a sewer connection outreach program facilitated by USAID. Within five months (Aug-Dec 2009) of launching the sewer connection outreach program 750 households connected to the sewerage system, well above the target of 300. By 2011 PDAM Tirtanadi reached their target of 3000 sewerage connections. This has encouraged the local and central government to be more engaged in supporting sewerage development. The City Government of Medan has provided increased funds to raise awareness and demand for household connections to the sewerage system.


3.14 EXPANDING SERVICES TO POOR HOUSEHOLDS

Some mentor utilities have established special funds from donations of their customers or through international solidarity funds to expand water, sanitation, and hygiene service for poor households. WOPs can assist in scaling up poor household services via national programs and international solidarity programs taking stock of donor funds earmarked to this sector.

**Scaling up services to poor households**

Vitens Evides International (Netherlands)–Nakuru Water & Sanitation Services Company Ltd (Kenya) WOP: Vitens assisted NWSSC in developing and implementing a strategy for expanding water and sanitation access to the (peri) urban poor in Nakuru. Vitens Carried out a similar program in Kisumu, Kenya. Around 25000 people from the urban poor areas of both Nakuru and Kisumu benefited from increased access to water supply and sanitation services.


3.15 SUSTAINABLE WATER RESOURCES AND INTEGRATED WATER RESOURCES MANAGEMENT

Several countries are currently under water stress and are facing the challenge of over-abstraction of groundwater resources and the risk of unsustainable access to water supply. By 2025 two thirds of the world’s
population could be living in water-stressed countries if current consumption patterns continue\(^9\). Without the required attention to the potential decline of water resources and the ecosystems which serve to provide them, the challenge of balancing water supply between multiple users can be expected to accelerate. The proposed SDG “sustainable water for all” calls for managing the water cycle in a holistic and sustainable way\(^10\).

Integrated water resources management (IWRM) holds promise as an approach to better manage this critical resource, and while it has not yet become the standard of practice, growing numbers of organizations are adopting IWRM principles as the approach that will be used to address their water resource challenges. According to the SDG on water, integrated management systems for freshwater and sanitation would be in place in all countries in accordance with national targets by 2030. This guide will help WOPs in taking into consideration sustainable water resources and IWRM as key factors in the mentees performance improvement.

**Promoting IWRM and sustainable water use in Suriname**

Worldwaternet-Amsterdam (Netherlands)-- Surinaamse Waterleiding Maatschappij, Surinamese Water Company (Suriname) WOP: Worldwaternet is working with SWM, farmers water boards, Ministries of Agriculture, Animal Husbandry and Fisheries; Public Works; and Regional Development, and ADRON research institute to create a platform for integrated water resources management to promote sustainable water use.

http://gwopa.org/wop-profiles/3022-partnership-between-water-boards-from-suriname-and-the-netherlands

3.16 WATER QUALITY MANAGEMENT AND WATER SAFETY

Water quality can be affected at the water source from untreated wastewater pollution and agriculture nutrient pollution. Water contamination can also occur in the water supply systems from infiltration of wastewater from septic tanks and leaky wastewater networks into the water supply pipes. Contamination can also take place after the meter inside the household water storage systems. Water quality should be given a high priority to ensure safe water supply and improved sanitation and hygiene. Improved water quality is one of the main themes of the proposed SDG on water.

WOPs are assisting water operators in the development and implementation of water safety plans (WSP) based on the WHO approach and WSP Manual\(^11\) that provides water utilities with a comprehensive step by step risk assessment and risk management approach ensuring the safety of drinking water supply from the water source all the way to the consumer.

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\(^9\) UN-Water Recommendations for a Potential Global Goal on Water, Prepared by the UN-Water SDG Working Group for discussion at the 19th UN-Water SPM meeting.

\(^10\) Emerging advice on a potential SDG on water, UN water, October 2013.

**Water Safety Plan Support**

Office National de l’Eau et de l’Energie (Morocco)–Bethlehem Water Supply and Sewerage Authority (Palestine) WOP: ONEE trained WSSA staff on development and implementation of a Water Safety Plan with emphasis on regulations and standards, water quality monitoring, operators’ qualification requirements, enhancement of the transparency and efficiency of data transfer mechanism, and improvement of communication with citizens and the Department of Public Health. ONEE and WSSP developed short term actions for 2013-2014 and longer term actions for 2015-2020 based on diagnosis of the water supply chain, from the water sources all the way to end users, and diagnosis of the water quality monitoring and testing systems.

For more information on this WOP, please refer to:


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**3.17 WASTEWATER TREATMENT AND REUSE**

Around 80% of global wastewater is discharged without treatment. Many developing countries do not treat their wastewater. This has impacts on the deterioration of water resources quality and therefore on drinking water supply and the health of ecosystems. Without proper wastewater collection and treatment, progress in drinking water coverage won’t achieve its full impact on people’s health and dignity. Wastewater treatment will not only improve the quality of water supply and environment, it is also an additional source of water that can be made available for various uses such as landscape, industry, and agriculture. Treated wastewater reuse represents a part of the national water use in water scarce areas such as MENA, Southwest USA, Australia, and South Africa. This PIP guide will help WOPs in taking into consideration wastewater treatment and reuse for improvement of the mentees performance.

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**Improving Wastewater Treatment**

Dunea N.V. (Netherlands)–Mwanza Urban Water and Sewerage Authority (Tanzania) WOP: The main Mwanza Wastewater Treatment Plant at Butuja is in good condition but the lack of “field suitable and specific” manuals for operation and maintenance of both the sewerage collection system and the wastewater treatment plant is holding back efficiency. Proper manuals and guidelines are also necessary for the improvement of engineering standards and practices. The wastewater manuals will be developed during the WOP phase with assistance from the Water Board of Rijnland. MWAUWASA’s capacity to write its own manuals will also be developed. On the water supply side MWAUWASA is in the process of certification under ISO 9001. Dunea will support MWAUWASA though the process on the basis of its own ISO experience.


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**3.18 WATER DEMAND MANAGEMENT AND WATER EFFICIENCY**

Supply-side solutions alone are not adequate to address the ever increasing demands from demographic pressure and socio-economic development. Demand management has been introduced to counter the challenges of inadequate supply. Water Demand Management is a set of regulatory, institutional, technological, educational, economical, environmental, and policy measures to achieve water efficiency.
Water demand management can sometimes lead to around 20% to 30% of water saving and could postpone investment in new water supply infrastructure for few years. WOPs can assist water operators in promoting water demand management and water efficiency.

### 3.19 ENERGY EFFICIENCY

Energy commonly represents more than 30% of a water utility total operation and maintenance costs. Many water operators in developing countries lack the capacity to conduct energy audits.

WOPs can assist operators in conducting energy use audits to identify opportunities for energy saving across the water supply and wastewater systems and support the development and implementation of energy use efficiency interventions.

**Supporting Energy Efficiency**

**Companhia de Saneamento Ambiental do Distrito Federal (Brazil)–Compañía Salteña de Agua y Saneamiento S.A. (Argentina) WOP:** CSADF assisted CSAC in Establishment of Department of Energy Management for energy conservation.


**Contra Costa Water District (USA)–Belize Water Services (Belize) WOP:** Using contacts introduced by CCWD, BWS is looking into importing solar panels for use on BWS facilities to save energy.


**Vitens Evides International (Netherlands)–Water and Energy Company Bonaire, Caribbean (Netherlands) WOP:** Vitens assisted WECB in the optimization of drinking water production and energy conservation.


**Water Saving Devices for Water efficiency**

**Contra Costa Water District (USA)–Belize Water Services (Belize):** While at CCWD, the BWS Customer Service teams observed residential water conservation surveys performed by CCWD and learned of water saving devices such as colored tablets to detect toilet leaks and flow restrictor aerators for water efficient faucets and showerheads to reduce residential water use. The BWS Customer Service Department is very interested in using these water saving technologies to promote water conservation efforts in Belize.


3.20 CLIMATE CHANGE RESILIENCE

Climate change can cause water shortage due to reduced precipitation, as well as service disruption and damage to utility assets as a result of severe floods. Many water operators in developing countries lack the capacity to deal with such impacts as water shortage and extreme floods.

WOPs can support utilities to conduct climate change adaptation studies to examine future possible impacts of shifts of weather patterns on the utility assets and water supply. WOPs can also support adoption of integrated approaches for climate change adaptation and risk assessment to protect assets and sustain water supply and sanitation services.

Climate Change Adaptation for Sustainable Water Supply

Vitens Evides International (Netherlands)—Saigon Water Supply Company (Vietnam) WOP (2013-3017): In the face of looming climate change and groundwater over-abstraction that has led to increased salinity and land subsidence, VEI is assisting SWSC and other utilities in the Mekong Delta area to develop and implement climate adaptation plans to sustain drinking water supply. The WOP program is helping the utilities to replace groundwater supply by sustainable and climate resilient surface water supply and by promoting more efficient use of water. The program will also reduce the water and energy footprint of the water companies and industries.

4. PRACTICAL GUIDELINES FOR THE DEVELOPMENT AND IMPLEMENTATION OF SHORT-TERM PIP AND DEVELOPMENT OF A MEDIUM-TERM PIP DURING A (SHORT-TERM) WOP

Preamble:

This chapter has been developed on the basis of the material collected from several African utilities for the elaboration of the PIP manual. Amongst them, we would like to acknowledge particularly the contribution of National Water and Sanitation Corporation from Uganda, which has largely inspired the process described in the present document.

This chapter relates to the proposed seven step process described in the Manual and aims at providing additional practical guidance for the utilities involved in WOPs, on how to lead the steps and the tasks described in the Manual – in a participatory manner – throughout the duration of a short WOP.

The Guide presents in detail the 7 necessary steps as follows:

- Step 1: Set vision, missions and goals of the utility
- Step 2: Perform participatory assessment of the utility
- Step 3: Rank importance of each theme
- Step 4: Plot themes’ importance against level of achievement
- Step 5: Select themes for short-term PIP and medium-term PIP and identify long-term themes
- Step 6: Develop and implement short-term PIP
- Step 7: Develop medium-term PIP
Diagnostic visit (1 week)

**STEP 1:** Set Vision, Mission, and Goals

**STEP 2:** Participative assessment

**STEP 3:** Rank importance of each theme

**STEP 4:** Plot theme importance against level of achievement

**STEP 5:** Select themes for short-term PIP and medium-term PIP and identify long-term themes

**STEP 6:** Development of short-term PIP during the short-term WOP
- Visits by the mentor to the member
- Benchmarking visit by the mentor to the member
- Wearing a uniform existing on the job training
- Distance follow-up by the mentor
- Reporting on progress by the member

**STEP 7:** Development of medium-term PIP

Medium-term PIP themes:
- SWOT analysis
- Medium-term CIP programs through WOP and other CIP approaches
- Actions/measures proposed with corresponding measurable activities and indicators if multi-year investment (realistically phased by the members’ own external funding)

**Development**
- 1st draft after diagnostic visit
- Finalization of short-term PIP after 1 month
1. PREPARATORY PHASE (2 MONTHS) – STEP 1 – PRIOR TO THE BEGINNING OF THE WOP

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>The mentor familiarizes itself with the mentee’s situation</td>
<td>• National water policy</td>
<td>Pre-assessment report</td>
</tr>
<tr>
<td></td>
<td>• National water strategy</td>
<td>Operator’s profile on GWOPA’s website</td>
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<tr>
<td></td>
<td>• Charter of the utility</td>
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<tr>
<td></td>
<td>• Strategy of the utility</td>
<td></td>
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<tr>
<td></td>
<td>• Last 2 year activity reports</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Last 2 year financial reports</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Organogram of the utility</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Report sent to the regulator (if any)</td>
<td></td>
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<tr>
<td></td>
<td>• any other relevant document</td>
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</tbody>
</table>

A desk evaluation on the mentee’s performance will be based on the performance data submitted by the mentee to the mentor and an evaluation report will be prepared. This will serve as a preparatory work before the first visit of the mentor to the mentee. This will help the mentor to have a better understanding of the mentee’s situation.

This covers also step 1 (vision, missions and goals).

Defining a utility’s vision, mission and goals is not a self-contained process. Every utility operates in a national (policy and political) Water Supply and Sanitation (WSS) sector setting that sets the boundaries for the discussion. That needs to be described. So the process requires, in this first “getting to know you” step, a national/WSS sector statement. N.B. That policy and political environment – and how “enabling” it is – is a strong factor in the eventual PIP and WOP success.

Many mentee utilities, especially if they have been involved with donors, will already have a vision and mission statement, general goals etc. If so, the partners will need to revisit the existing statement(s) and re-assess their validity going forward.

All goals, to have value, need to be based on real data. A goal of 20% physical water losses by 2020 for example, requires that we know what the losses are today. Most poorly performing utilities have very weak data on such indicators. This immediately flags up the key problem of data collection and quality which all PIPs need to take into account.

2. ASSESSMENT WORKSHOPS AT THE MENTEE’S PREMISES – STEP 2 TO STEP 6

The assessment workshops will serve as a basis for collecting a first round of information and data that will feed the diagnosis of the situation of the mentee. These workshops will be prepared and facilitated by the mentee with the help of the mentor in a participatory manner, having a balanced mix of bottom-up and top-down approaches using the following guiding principles:

a) Mentee’s Management’s most important role is to provide leadership and support. Management does not have to know all the technical details of operation etc. but rather must have a clear vision and systematically guide all to share and contribute to the vision.

b) There is a lot of un-tapped wisdom and knowledge among the lower cadre staff

c) Participation by all staff in planning greatly contributes to staff ownership and commitment
d) Specificity of plans is the starting point in their effective implementation.

e) The mentors’ Teams’ role is one of facilitation and moderation while the actual analysis of problems and generation of ideas and solutions is the role of mentee’s staff and management.

The typical assessment workshops usually run for four or five days:

<table>
<thead>
<tr>
<th>Perform participatory assessment of the utility – step 2 to step 5</th>
<th>Documents/ material needed</th>
<th>Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Day 1: Management Workshop – step 2</strong></td>
<td><strong>• presentation of the mentee utility by management</strong></td>
<td>Operator’s profile (to be put online on the GWOPA database)</td>
</tr>
<tr>
<td>The mentor Team will conduct an inception meeting with the mentee’s Management. This will enable the mentor Team appreciate more definitively the expectations of the mentee, agree on the entire PIP preparatory process as well as provision of the requisite background documentation. It is important that the mentor presents the concept of the PIP to the management and gets the buy in of its partner regarding the expected outcome of the exercise. – Constitution of the team within the mentee responsible for the coordination and M&amp;E of the short-term PIP – Constitution of a mentee’s coordination group for the PIP development</td>
<td><strong>• presentation of the mentor utility by mentor’s staff</strong></td>
<td></td>
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<tr>
<td><strong>Day 2: Field Excursion – step 2 ctnd</strong></td>
<td><strong>• presentation of the PIP concept by mentor</strong></td>
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<tr>
<td>One day field excursion to be organized by the mentee to get a reconnaissance of the water and sewerage installation and systems. The field excursion is vital in enabling the mentor to have a better understanding of the intricacies and challenges of the mentee for more effective facilitation and moderation in the PIP preparation.</td>
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<tr>
<td><strong>Perform participatory assessment of the utility – step 2 to step 5</strong></td>
<td><strong>Documents/ material needed</strong></td>
<td><strong>Outputs</strong></td>
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</tr>
<tr>
<td><strong>Day 3: Staff Workshop 1 – step 2 ctnd</strong></td>
<td></td>
<td>Analysis based on the inputs of the staff on main challenges</td>
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</tbody>
</table>
| It will start with a plenary session aiming at informing the mentee’s workforce about the WOP and its objectives. It is expected that a maximum number of staff attend the session and that those who are attending relay the information to the rest of the staff. This could involve the organization of smaller information meetings within the different units of the mentee utility. A short report of the session should be circulated to all staff. | • PIP manual and process presentation  
• brief presentation on what WOPs are and who is GWOPA  
• cards to write |  |
| The plenary session should start with a presentation of a brief overview and importance of the assignment. This will be followed by brief presentations by the mentor on: |  |  |
| • the key elements of top priority challenges and examples of good practices taken by other utilities to tackle these challenges  
• the PIP process – presentation of the PIP team (mentee’s staff + mentor’s staff)  
• the short term PIP process – presentation of the team responsible for the coordination of the short term action plans within the mentee’s staff |  |  |
| These presentations will be done with the purpose of enabling staff to appreciate the importance of the PIP and the WOP to the mentee. The remaining part of the workshop will mainly focused on the generation of issues i.e. challenges, weaknesses etc. |  |  |
### Perform participatory assessment of the utility – step 2 to step 5

In an anonymous process, the mentee’s staff will write on cards identifying constraints affecting performance in the main themes, including for example:

- Human Resources Development
- Institutional Strengthening and Governance
- Policy and Legal Support
- Master Planning and Business Planning
- Financial Management
- Communication and Customer Relations
- Billing and Revenue Collection
- Non-Revenue Water (NRW) Management
- Operation and Maintenance
- Asset Management
- Information Communication Technology
- Extension of Water Supply Services
- Extension of Sanitation and Hygiene Services
- Expanding Services to Poor Households
- Sustainable Water Resources and Integrated Water Resources Management
- Water Quality Management and water safety
- Wastewater Treatment and Reuse
- Water Demand Management and Water Efficiency
- Energy Efficiency
- Climate Change Resilience

The anonymous process will enable the staff to freely outline issues and factors they strongly feel are hindering performance.

At the end all issues raised will be compiled by the organizing team (composed of both mentor’s and mentee’s staff) under the respective thematic performance categories and regrouped to enable group discussions the following day.
### Day 4: Group discussions – steps 3, 4 and 5

Three groups will be formed including for example the Technical Operations Group, the Commercial Operations Group and the Finance and Administration Group. Each group will discuss the issues regarded to be most relevant to that group and will draw from all the themes identified. This approach will enable all to appreciate that most of the theme categories are multi-disciplinary in nature and require multi-disciplinary teams for effective solutions. The formation of each group will ensure that all functions are adequately represented.

The groups will rank the importance of each of theme and will plot the theme’s importance against the level of Achievement. Then they will select the WOP themes for the short-term PIP and medium-term themes for the medium-term PIP and also identify the long-term themes.

<table>
<thead>
<tr>
<th>Perform participatory assessment of the utility – step 2 to step 5</th>
<th>Documents/ material needed</th>
<th>Outputs</th>
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</thead>
<tbody>
<tr>
<td>Day 4: Group discussions – steps 3, 4 and 5</td>
<td>• Mentor’s staff together with one staff from the mentee for each group to guide the discussions.</td>
<td>Tables filled out</td>
</tr>
<tr>
<td></td>
<td>• Thematic assessment table (PIP manual)</td>
<td>Themes selected both for short term and medium term</td>
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<tr>
<td></td>
<td>• Ranking matrix (PIP manual)</td>
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</tbody>
</table>
**Day 5: Group discussion – step 5 contd, step 6 and step 7**

**Morning:**

The groups will be required to formulate short term thematic action plans for each of the themes selected for the short term, including assignment of responsibility and implementation time as well as the respective cost estimates where applicable. Targets and goals should also be clearly defined. A SWOT analysis should be done for each of the selected theme (see box no1).

The short-term PIP (for the duration of the WOP) will be formulated taking into account the mentee’s Strategic Business Plan Targets (if any) and Annual Budget for the year. A table will present the outlines of the key performance targets to be achieved during the WOP.

<table>
<thead>
<tr>
<th>Performance areas</th>
<th>Goal Description – Indicator</th>
<th>Unit</th>
<th>Base Performance</th>
<th>PIP Targets</th>
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<tbody>
<tr>
<td>1. XXXXX</td>
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<td>2. XXXX</td>
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<td>Etc…</td>
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</table>

The short-term PIP will provide implementation timeframes and responsible officers or parties respective to each strategy and action plan as well as cost implications where applicable.

**Afternoon:**

In the afternoon the groups will reconvene in plenary to present the outputs of each group discussion.

These will be discussed in the presence of the Managing Director and will set the scene for addressing communication gaps and problems of interpersonal relations and misguided perceptions. Members will be encouraged to react freely to issues through clarifying, appreciating the perceptions and committing to change for the better.

The final prioritization of the themes for the short-term PIP and for the medium-term PIP should be done during this plenary. The proposed short-term PIP should be validated by the plenary. The selection of the themes for the medium-term PIP should also be validated.

**Documents/material needed**
- short term PIP structure (PIP manual)
- SWOT presentation
- performance area table

**Outputs**
- Short term PIP developed and validated by management and staff
- Themes for medium term PIP selected and validated by management and staff
Box no1 – SWOT

Based on the records and reports provided by the mentee, a performance table will be designed. This table should include the baseline data, the indicators and the objectives to be reached at the end of the PIP for each of the medium-term theme selected.

SWOT Analysis

In order to establish the basis for developing the PIP, a detailed SWOT analysis of the situation will be carried out to identify the strengths, weaknesses, opportunities and threats of the mentee. The issues discussed will be categorized in a certain number of performance areas (for example, water production, supply reliability, Non-Revenue Water, sewerage services, revenue generation, business growth & customer relations, cost optimization, staff motivation & productivity, administration and logistics etc.)

The SWOT analysis will present the strengths, weaknesses, opportunities and threats under each of the performance area.

3. TRAINING AND BENCHMARKING VISIT(S) – IMPLEMENTATION OF THE SHORT TERM THEMATIC PIP – STEP 6 CTD

According to the need assessments done during the previous steps, on the basis of the short term PIP, the mentor will organize specific classroom or/and hands-on training and/or on-the-job training, either at its own premises or at the mentee’s premises.

The training at the mentor’s premises will be combined with a benchmarking visit of the different units of the mentor utility.

Both training and benchmarking visit should not take more than 7 working days.

4. MONITORING AND EVALUATION FRAMEWORK – STEP 6 CTD

Monitoring mechanism

The purpose of the M&E Framework is to provide a systematic mechanism for both the mentor and the mentee to effectively monitor and evaluate the mentee performance in respect to the targets and milestones stipulated in the short term PIP thematic action plans. The monitoring and evaluation of the short term PIP thematic action plans will be carried out by a multi-disciplinary Team composed of members from different departments of the mentee utility. This implies that the mentee’s management shall structure itself into a monitoring and evaluation team. The team shall be composed of members from the different departments and will have a Chairperson and Secretary.

Modus Operandi of M&E Team

The M&E team will meet every two weeks to discuss the implementation progress, emphasizing exceptionally disquieting issues and striving to find solutions. The meetings will be informed by regular field inspections to be carried out by the team (at an interval to be determined by management) to physically check and assess implementation progress of planned activities.

M&E Team shall prepare and present the short term PIP thematic action plans’ progress reports including the agreed way forward on the constraints and achievements to the executive committee meeting.
At the end of every month, the M&E Team shall collect all the relevant information and prepare a monthly report in line with the reporting format to be determined by the mentee’s management. This report should be sent to the mentor.

The reports shall include:

- a comprehensive performance evaluation in respect to the plans, highlighting the achievements, incentives earned, constraints
- and way forward.

The results of the evaluation shall be discussed and communicate to management and staff. These reports should be communicated and discussed with the mentor.

In order to build capacity within the mentee to continuously and effectively monitor and evaluate the plans, the mentor’s team will support the mentee’s management in planning the monthly evaluations.

Quarterly (after the first three months) and final (after 1 year) plans consolidated performance evaluations shall also be carried out, highlighting the objectives of the PIP, achievements, constraints and way forward. The quarterly and final plans evaluations shall be conducted using a workshop methodology involving a representative number of staff.

The quarterly reports should be sent to GWOPA.

5 DEVELOPMENT OF THE MEDIUM-TERM PIP – STEP 7

On the basis of the outputs of the assessment workshops, the mentor will help the mentee to develop a medium term PIP. This will be done in collaboration with the PIP focal point team from the mentee utility (identified at the beginning and endorsed by Management). This team will facilitate the data gathering necessary for the development of the PIP. Each mission of the mentor’s staff to the mentee utility should be an opportunity to gather more information, to develop further and to discuss the PIP. The development of the PIP will be done throughout the duration of the WOP itself. The final PIP report is expected only at the end of the WOP, as one of the products of the WOP.

1 – SWOT analysis and performance overview (see box no1)

2 – Performance targets

The PIP will set performance targets on the medium term (2/3 years). The short term action plans will be included in the PIP as the short term phase (1 year – or 10 months according to the duration of the WOP). The final report on the short term action plans will present the achievements and the remaining steps to be taken.

Strategic Goals

If the mentee has already identified strategic goals over a certain period of time (for example a 5 year plan) then the targets of the PIP should necessarily be aligned with those goals.

PIP Performance Targets

The medium term PIP targets will be formulated taking into account the mentee’s Strategic Business Plan Targets (if any) and pluri – Annual Budget or business plan (if any). A table will present the outlines of the key performance targets to be achieved during the PIP.
Performance Improvement Plan Manual

<table>
<thead>
<tr>
<th>Performance areas</th>
<th>Goal Description – Indicator</th>
<th>Unit</th>
<th>Base Performance</th>
<th>PIP Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. XXXX</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. XXXX</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Etc…</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The PIP will outline the strategies and/or actions to be implemented after the WOP itself on the medium term. The strategies and actions will be formulated and agreed upon in a participatory manner by the management and staff of the mentee as described previously. The strategies are well linked and anchored to the challenges and constraints faced by the mentee. The strategies and actions form the attainment of the Performance Targets should be presented under the identified performance categories. The PIP will provide implementation timeframes and responsible officers or parties respective to each strategy and action as well as cost implications where applicable. It will also distinguish between capacity building needs and infrastructure/investment needs.

### Performance area 1

<table>
<thead>
<tr>
<th>Issue</th>
<th>Improvement Strategy/action</th>
<th>By whom</th>
<th>By when</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>• capacity building</td>
<td>• infrastructure development</td>
<td>Names of staff</td>
<td>Deadline and landmarks</td>
<td>Estimation</td>
</tr>
<tr>
<td>• equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is expected that the PIP will be developed during the total duration of the WOP, by the PIP team assisted and guided by the mentor. The different drafts of the PIP should be circulated amongst the different units of the mentee utility, as well as within the top management team, to make sure to collect sufficient and valuable feedback from the staff.

### 5. FINAL EVALUATION AND VALIDATION WORKSHOP – STEPS 6 AND 7 CTD

- Desk Evaluation (preparatory phase)
- Field Evaluation Workshop

The 2/3 day evaluation workshop will take place at the mentee’s premises.

The management and staff will assess the performance over the period based on key indicators under Technical, Commercial and Financial operations. During the evaluation workshop, the heads of sections will present the performance of their respective sections, a process that was aimed at increasing process ownership. Each area of performance will be discussed by the adequate groups.

In line with the key constraints identified, each of the groups will formulate key undertakings to deliver performance for the next six months.
There will be also a field evaluation at the different premises of the mentee to assess also the progress and the challenges met on the ground. The workshop will end with a plenary session in which the groups’ undertakings will be presented and discussed.

- Medium-term PIP validation workshop

This workshop will be organized back to back with the evaluation workshop. The same groups will be gathered again and the PIP team will present in a plenary the draft PIP report.

Then each relevant group will discuss separately the recommendations presented and will finalize the different components of the PIP.
### Example of Implementation Schedule (example for a 10 month WOP)

<table>
<thead>
<tr>
<th>Task</th>
<th>1 year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finalization of MOU</td>
<td>0 0 1</td>
</tr>
<tr>
<td>Preparatory study – baseline evaluation</td>
<td>0 0 1</td>
</tr>
<tr>
<td>Participatory assessment workshop = design of the short-term PIP +</td>
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</tr>
<tr>
<td>identification of themes for medium-term PIP</td>
<td>0 0 1</td>
</tr>
<tr>
<td>Dev.’t of M &amp; E framework (short-term PIP to run for 10 months)</td>
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<tr>
<td>Dev.’t of the medium-term PIP</td>
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</tr>
<tr>
<td>Report to GWOPA</td>
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</tr>
<tr>
<td>Capacity building activity in relation with the short-term PIP</td>
<td>0 0 1</td>
</tr>
<tr>
<td>Circulation of the 1st draft of the medium-term PIP</td>
<td>0 0 1</td>
</tr>
<tr>
<td>Monthly M&amp;E of short-term PIP</td>
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</tr>
<tr>
<td>Training Course on specific relevant issues identified in the short-term PIP, combined with benchmarking visit from mentee to mentor</td>
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</tr>
<tr>
<td>Circulation of the 2nd draft of the medium-term PIP</td>
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</tr>
<tr>
<td>Assessment of the short-term PIP workshops</td>
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</tr>
<tr>
<td>Medium-term PIP Validation workshop</td>
<td>0 0 1</td>
</tr>
</tbody>
</table>
REFERENCES


20. Yñiguez, C., Davies, D., Water Operators ’Partnerships in Asia, Case Study 1, City West Water, Melbourne, Australia, and Metro-Cebu Water District, Cebu, Philippines, GWOPA, UN-HABITAT, March 2012.

