WOMEN in WATER UTILITIES
BREAKING BARRIERS
Executive Summary
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1. Current needs and trends in the water and sanitation sector create unprecedented change for water and sanitation service providers. With 2.1 billion people still lacking safely managed drinking water and 4.5 billion lacking safely managed sanitation, the water and sanitation crisis is one of the global community’s most pressing challenges. Service providers are under increased pressure to provide services to communities traditionally excluded and to reach remote or low-income areas. Emerging global trends, such as rapid urbanization and climate change, put further pressure on the scarce natural resource of water. At the same time, as important service providers in urban areas, water and sanitation utilities have a key role to play in achieving United Nations (UN) Sustainable Development Goal 6, to “ensure availability and sustainable management of water and sanitation for all.” To meet these challenges, water utilities need to increase their productivity and become more efficient. This will require tapping into new approaches, technologies, and solutions, as well as renewing the water workforce to meet emerging needs and move away from business as usual. By hiring, managing, and training a more diverse mix of employees, new and fresh perspectives can help shape the water utilities of the future.

2. Utilities can play an important role in reducing and eliminating barriers faced by women. This study presents a first-of-its-kind analysis that aims to heighten understanding of key barriers and bottlenecks that women face in their career in the water sector and identify interventions that water companies can put in place to increase gender diversity in the water workforce. The report draws on survey data collected from 64 water and sanitation utilities in 28 economies; focus group discussions with water utility staff in Belarus, Egypt, and Malawi; and in-depth key informant interviews with representatives of utilities, academia, and international organizations. The study also draws on secondary survey data from the International Benchmarking Network for Water and Sanitation Utilities (IBNET) and the Mining and Utilities Statistics Database (MINSTAT); gender diversity assessments from water utilities in Albania, Kosovo, and Romania conducted by the Economic Dividends for Gender Equality (EDGE) Certification Foundation and the World Bank; insights from a qualitative study on female representation in a utility in Bangladesh, conducted as part of a World Bank water and sanitation project; and an extensive review of literature on female employment in utilities and infrastructure-related sectors.
BACKGROUND

Women are an untapped pool of talent for the water sector. Data collected for this study from 64 water and sanitation service providers in 28 economies around the world show that the percentage of female workers is considerably lower than that of men: on average, utilities in the sample reported that only 18 percent of their workers are women—that’s fewer than one in five (figure ES.1). Wide heterogeneity was found among the utilities surveyed. For example, although, on average, 23 percent of engineers and managers in a utility are female, 32 percent of the sampled utilities had no female engineers and 12 percent had no female managers. Other sources and literature corroborate these findings and show that the water sector continues to employ a far higher number of men than women, especially in technical fields (IWA 2016). A World Bank report on the links between water and gender found that “the low number of women in water-related technical roles reflects their overall exclusion from such jobs” and is a representation of broader labor market trends (Das 2017).

Despite low percentages of female representation, some evidence suggests that the proportion of female water professionals has grown in the past few years. Data on participation in water utilities from 2011 and 2016 show a steady increase in the percentage of female employees (IBNET; figure ES.2). This may be a positive sign that the sector is changing toward improved female representation. Nevertheless, the pace of change is far too slow, and there is significant work to be done if gender parity is to be achieved.

Modern utilities are evolving and becoming more customer oriented. Utilities are creating new departments to respond to emerging needs, mainly in client-facing areas such as customer service divisions. Many positions seen today did not exist 20 years ago, so the utilities of today and tomorrow need staff with more diverse skill sets. Because of technology and digitization, certain jobs no longer require physical strength. Human resource management can play a central role in preparing utilities to respond to these changes and promoting more diverse professional backgrounds among utility staff. By expanding the talent pool to truly include women, a utility can choose from the most talented recruiting pool to address the sector’s evolving needs.

FIGURE ES.1: AVERAGE SHARE OF EMPLOYEES IN A WATER UTILITY THAT ARE WOMEN, 2018–19

Notes: Responses to the World Bank Utility Survey (N = 64 water and sanitation utilities in 28 economies). Bars show the utility average, and lines show the range of all values. Engineers are defined as licensed engineers working in the utility. Managers are employees in leadership positions and decision-making roles and can comprise upper-, middle-, and lower-level management.
Increasing women’s participation in water utilities benefits women, the community, and the organization. Women benefit by gaining access to more and better jobs. Communities gain better representation in water-managing bodies, which evidence suggests can lead to better community relations, among other benefits. In addition, a growing body of literature indicates numerous benefits of gender diversity on organizational outcomes. For instance, evidence from the private sector suggests that gender-diverse companies tend to outperform less diverse companies in terms of return on equity. Similarly, several studies link greater diversity to an expanded mix of skills, which is found to lead to greater innovation. Gender diversity also improves customer satisfaction, because involving women in the design, operation, and maintenance of water supply systems often results in improved user-friendly and female-friendly design. Because women are key clients for water and sanitation utilities, a more gender-diverse workforce can help utilities better understand and respond to the concerns and needs of female clients (GWA 2011; Hunt et al. 2018; IWA 2016) and lead to improved customer satisfaction (Thompson et al. 2017).

“If utilities gave motivational speeches to universities, more female graduates may consider working in water utilities. For now, it seems to them like an unattractive job provider.”
—Female water quality officer, Ghana

“For women to be taken seriously they have to work twice as hard, even if they are in the same positions as men or applying to the same positions.”
—Female water utility employee, Kosovo

Removing constraints to better jobs for women has wider economic and financial benefits at the national level. For governments, there is a compelling financial argument for promoting greater gender inclusion in the workforce: gender inequality and occupational sex segregation have proved costly. A World Bank study in 141 countries found that women, in comparison to men, earn less and have lower human capital wealth, defined as the value of the future earnings of a country’s adult citizens. This inequality results in US$160.2 trillion of losses in human capital wealth globally (Wodon and de la Brière 2018). Studies have shown that gross domestic product (GDP) increases with higher female participation in the workforce. In Organisation for Economic Cooperation and Development (OECD) countries, where the gender gap is presumed to be smaller, a 50 percent reduction in the male–female employment gap is estimated to lead to a GDP gain of 6 percent by 2030 (OECD 2015).

“It could be helpful to ensure women are aware that there is a potential to apply to these positions—that positions are open, and that they are just as suited to apply.”
—Female employee, Kosovo

Source: IBNET.
Notes: Data includes 362 annual observations from utilities for the years 2011-2016. Utilities are included only if they have available data for at least four of the six years in the period. The ratio of women to total employees is calculated at the annual level for each utility and then averaged across utilities in the same year.

FIGURE ES.2: TRENDS IN THE SHARE OF FEMALE WORKERS IN WATER UTILITIES
Women face barriers in accessing equal employment in water utilities throughout their career trajectory. Employing a career cycle framework, this report identifies four stages in a career cycle in which barriers manifest for women’s employment: attraction, recruitment, retention, and advancement (figure ES.3). At each stage, as will be examined in closer detail in various chapters of this report, institutional and social practices can act as both enablers and barriers to the development of a woman’s career in water utilities.

“The utility is so male dominated, that within weeks of joining the utility, most women want to leave! The utility needs to hire more women so that a culture is created where everyone feels comfortable.”
—Female water quality officer, Ghana

“Most women do not like to work during odd hours because of some family commitments such as nursing babies.”
—Female FGD participant, Malawi

**FIGURE ES.3: EMPLOYEE CAREER CYCLE IN THE UTILITY SECTOR**

<table>
<thead>
<tr>
<th>ATTRACTION</th>
<th>RECRUITMENT</th>
<th>RETENTION</th>
<th>ADVANCEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Gender roles marked through social norms</td>
<td>• School-to-work transition</td>
<td>• Work–life balance</td>
<td>• Training, mentorship, and networking opportunities</td>
</tr>
<tr>
<td>• Divisions of labor</td>
<td>• Targeting candidates/job advertisements</td>
<td>• Family-friendly policies</td>
<td></td>
</tr>
<tr>
<td>• STEM graduates</td>
<td>• Hiring process</td>
<td>• Fair wages</td>
<td>• Opportunities for leadership</td>
</tr>
<tr>
<td>• Role models</td>
<td></td>
<td>• Work environment</td>
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<td></td>
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<td>• Sexual harassment</td>
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<td></td>
<td></td>
<td>• Work facilities and amenities</td>
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</tbody>
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Source: Authors  Note: STEM = science, technology, engineering, and mathematics.

**BARRIERS AND PROMISING APPROACHES**

9. **Attraction:** because of entrenched social norms and practices, water utilities and other infrastructure sectors often do not attract women. Findings from this study suggest that some key constraints to women’s participation in the water sector pertain to broad societal and national-level challenges. These include gender norms and stereotypes, occupational segregation, and the low share of women graduating from science, technology, engineering, and mathematics (STEM) fields. The chain of barriers begins in education, with a low number of women graduating in STEM fields or from technical and vocational education and training (TVET) programs. Even with such training, women are likely to be deterred from entering water utilities because gender norms label the work as too dirty, dangerous, or heavy. Those women who do work in the utilities tend to be employed in domains traditionally considered female, such as administration, customer relations, and finance and accounting, rather than the more expansive and generally higher-paying technical domains of engineering, supervision, operations and maintenance. The dearth of female role models in the sector also contributes to the low number of women attracted to the water workforce. Initiatives that utilities can adopt to attract more women to the sector and overcome some gendered social norms include developing outreach programs for schools, sponsoring scholarships for women in STEM, or introducing technical and training programs targeting women, as some utilities described in this report have done.
10 Recruitment: women may face barriers in the recruitment process of water utilities. Data from the World Bank Utility Survey show that over a 12-month period, only 20 percent of new hires were female. Some challenges women face in being recruited to water utilities lie in biased hiring processes, including discriminatory language in job postings and implicit biases that affect members of the hiring panel. Women are typically not targeted in job placement programs or other school-to-work transitions. When they are considered for positions, evidence suggests male applicants are favored over female candidates in most STEM-related fields. In some economies, women are even legally prohibited from being hired in the water sector. Small investments into overcoming biases in the hiring process can expand the talent pool to the most skilled and experienced candidates and thereby produce economic benefits for a water utility. Gender-neutral job descriptions, removal of gender markers from application documents, structured interviews, and gender-diverse panels can mitigate the barriers and hidden biases female applicants face. Other promising approaches that utilities have adopted include job training and placement programs, internships and apprenticeships, and incentives and diversity targets.

11 Retention: retention of women in water utilities is hampered by a lack of gender-sensitive policies and a discriminatory workplace environment. World Bank Utility Survey data reveal that female employees leave water companies at a higher rate than men. Data for 2018 show that on average, women leave water utilities at a rate of 8 percent throughout the year, compared with 5 percent for men. Reasons cited by workers include insufficient flexibility in arrangements that enable women to reconcile work and caregiving roles, a feeling of isolation in a male-dominated environment, a lack of basic amenities in the workplace (such as separate toilets by gender, changing rooms, and sanitary facilities), and sexual harassment. All of these factors create challenges in reducing turnover and retaining a skilled female workforce. In response, some utilities have introduced more family-friendly policies (for example, flexible work arrangements and childcare options), sexual harassment protection mechanisms (via anti-harassment policies and training, codes of conduct, and safe field-site accommodation for women operators), improved working facilities (separate toilets, lactation rooms, and so on), and policies to remove salary inequities.
12. Advancement: women in water utilities do not always have the same opportunities as men to advance in their career.

Unequal access to job training and career advancement opportunities can affect women’s professional realization and career progression in the sector. The literature suggests that oftentimes female employees are not given equal opportunities to advance in their careers. Data from the World Bank Utility Survey provide contrasting findings. According to the survey data, proportionately speaking, women on average receive more opportunities for training and have similar or slightly higher chances of getting promoted than men. For instance, in 2018, 4.4 percent of men, on average, were promoted in the previous 12 months compared with 5.4 percent of women. When it comes to perceptions, however, qualitative data collected for this study suggest that female employees do not always perceive that they are given equal opportunities to advance in their career. Most women who participated in discussions or interviews for the study agreed that they must work especially hard to prove that they are as capable as men or are ready for more levels of responsibility. Regardless of whether female managers are promoted at higher rates than male managers or not, it is irrefutable that in absolute terms, there are fewer women in managerial positions. Some practical examples that can help increase opportunities for the advancement and career development of female employees in the water sector include increased training options (adjusting training times and locations can make these opportunities more accessible to both men and women), mentorship and networking programs, female leadership programs, and succession plans that are inclusive of women. Other measures to consider are transparent promotion processes and criteria, performance systems that identify talented women to be promoted, targets for gender composition in leadership positions, and incentives for women to aspire to a career in the organization.

13. To be effective, interventions by water utilities to increase female participation must be targeted and tailored to address the barriers that women face in each specific context. This will require concerted efforts, especially from leadership, to ensure women are provided with relevant opportunities to enter the sector and advance their careers. Although the challenges women face are often universal (affecting service providers in countries across all income levels), the policy mix and actions will need to be designed with a strong understanding of the specific context. Legal, institutional, political, social, and cultural considerations vary across countries, and these affect the roles that women are expected to play in the water sector. Therefore, these considerations are important to understand before determining which gender diversity measures are appropriate. Because water-managing bodies are diverse—private or public, with differences in managerial structure and autonomy, population served, utility size, or age composition of the staff—they face unique challenges that need to be considered when designing measures to address gender diversity at the utility level.

14. Although the report focuses on service providers, creating an enabling environment at the national and sectoral level is important to facilitating changes on the ground. Gender equality is increasingly embedded in national constitutions, laws, sector strategies, or incentives for improving conditions for female professionals. However, many countries still have job restrictions and other discriminatory laws that limit women’s equal access to the water sector. Reforming these laws and adopting gender-friendly policies, such as offering maternity and paternity leave that would allow women to compete with men on an equal footing in the sector, are also important if gender inclusion is to flourish at the national level.

15. There is no silver bullet solution to foster gender equality in the water workforce, but water utilities can adopt various promising approaches and interventions. Each utility varies, as do the experiences and needs of their employees. In each context, depending on the salient issues, a different mix of approaches is relevant. A global mapping of initiatives from water and related sectors carried out for this study highlights a range of promising approaches that utilities can, and do, adopt to enhance gender diversity. Examples of approaches and policy reforms that water utilities can undertake to increase female participation at each step of the career cycle are laid out in appendix a.
REFERENCES


GWA (Gender and Water Alliance). 2011. Gender Scan Methodology. GWA.


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