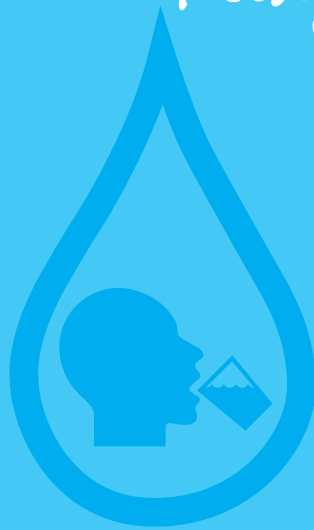


Pledge and guiding principles





















Water, Sanitation and Hygiene Implementation at the Workplace



wbcd water

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Foreword

World Business Council for Sustainable Development (WBCSD)

Today, over 1.8 billion people¹ are still without access to safe drinking water and an estimated 4.1 billion² lack access to adequate sanitation.³ This is incompatible not only with WBCSD's Vision 2050, where 9 billion people are able to live well within the limits of the planet, but also with the United Nations' human right to water and sanitation. Accelerated action is urgently needed to address these social imperatives.

There is a compelling and clear economic case for businesses to demonstrate leadership by addressing this situation. Many businesses have operations, employees, contractors and customers in countries lacking access to safe **Water, Sanitation and Hygiene (WASH)**. Economic, social and environmental impacts can cause illness or fatalities, impair productivity, and restrict markets for some products and services.

The business cost arising from preventable water-related diseases alone can be material.⁴ Public health and resilience of local and global economies are seriously affected by these negative impacts on human resources, not to mention by the serious environmental damage caused to water polluted by untreated human waste. It need not be this way: it is estimated that for every US\$1 invested in water and sanitation, US\$4.3 is generated in economic returns through increased productivity.⁵

A proposed first step in accelerating business action is for companies to commit to the [WBCSD Pledge for Access to Safe Water, Sanitation and Hygiene at the Workplace](#). This Pledge aims to secure appropriate access to safe WASH

for all employees in all premises under direct company control.⁶ Signatories can help set a leadership example to other companies and make a positive contribution to fulfilling the related United Nations objectives of universal access to safe drinking water and sanitation.⁷ This publication includes a set of guiding principles that will support companies in their efforts to implement WASH at the workplace - the essential initial step for businesses supporting global objectives related to water for human use and consumption, sanitation, and proper hygiene. It is a living document that will continue to evolve over the years as companies provide feedback on the strategies that have worked well and those that have been less successful.

As you read through the guiding principles and begin to implement water, sanitation and hygiene within your operations, we encourage you to share your experiences with us so that others can benefit from what you have learned. In this rapidly evolving global economy, where social license to operate, reputational risk and access to natural resources have become increasingly important to success, water, sanitation and hygiene should be a key aspect of any company's water stewardship strategy.

Forward-looking businesses are indeed transitioning from *water management* to *water stewardship*, which includes addressing WASH, water scarcity and water quality within their operations as well as across their value chain in all global markets. As employers and members of society, we encourage businesses to pledge to ensure appropriate access to safe water, sanitation and hygiene for their own employees, thus making an initial and direct contribution to addressing one of the most pressing socio-economic challenges of our times.



Peter Bakker
President WBCSD



Mark Garrett
Chief Executive Borealis AG
Co-chair WBCSD Water Program



Alain Tchernonog
General Secretary EDF
Co-chair WBCSD Water Program



Scott Griffin
Chief Sustainability Officer
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Principal Citizenship, Deloitte LLP



Marcela Manubens
Global VP Social Impact
Unilever

Introduction

Provision of Access to Safe Water, Sanitation and Hygiene: A Business Imperative

Benefits of Business Engagement

Companies can make a direct improvement to productivity and employee morale, as well as public health and wellbeing, by providing and maintaining safe drinking water, appropriate sanitation facilities and supplies to allow for proper hygiene at the workplace, together with education and awareness building. The latter can also provide the impetus for improvements in the larger community and thus impact a much broader scale. **The tangible business benefits associated with improved access to safe WASH at the workplace include:**

Healthier and more productive employees

- 88% of diarrhea cases worldwide are attributed to unsafe water, inadequate sanitation or insufficient hygiene.⁹ Productive working time is lost to water-related disease and low life expectancy. Estimates suggest that achievement of the United Nations Millennium Development Goals (MDGs) Target 7.C¹⁰ may lead to an increase of 3.2 billion productive days and 272 million school days per year.¹¹
- Adequate access to safe water, sanitation and hygiene at the workplace is associated with decreased absenteeism, reduced workplace accidents and improved productivity. Improving access to safe water, sanitation and

hygiene can therefore increase the number of available workers by decreasing diseases associated with inadequate sanitation that render some workers unavailable to fulfill certain jobs (food and beverage, tourism, etc.)

- Less frequent water-related illness also results in reduced short-term and long-term health care costs for employees and employers.¹²

Other business benefits associated with improved access to safe WASH across the broader value chain include:

Demonstration of leadership by businesses and legitimacy to call for action

- Ensuring workplace water, sanitation and hygiene contributes to the achievement of international objectives such as the United Nations MDGs and the Human Right to Water and Sanitation.¹³
- Accelerating programs to increase access to safe drinking water and sanitation in both rural and urban settlements was one of four key business water messages at The United Nations Conference on Sustainable Development (Rio+20).¹⁴

“By ensuring access to safe water, sanitation and hygiene (WASH) at the workplace in all premises under direct company control, businesses can help set a leadership example as well as contribute to fulfilling the related United Nations objectives of universal access to safe drinking water and sanitation.”⁸

Expanded markets, and more vibrant existing markets, for products and services

- It is estimated that for every US\$1 invested in water and sanitation, US\$4.3 is generated in economic returns through increased productivity.¹⁵ Countries with higher percentages of the population with access to safe water and sanitation enjoy higher growth.
- In developing countries, providing safe drinking water to an additional 10% of the population increases per-capita GDP growth by more than 2% per year.¹⁶ This increase in economic value can lead to more consumers and disposable income.

Stakeholder engagement to achieve common goals

- Implementing access to safe WASH for employees and surrounding communities can allow companies to align their engagement efforts with their sustainability programs.
- Engaging with value chain partners can provide added value in being able to collectively develop new approaches to achieve common goals.

- Collaboration with local communities, governments, non-governmental organizations (NGOs), academia and other businesses on access to safe WASH can help companies achieve leading practices and gain alignment of their environmental strategies with public policy goals and multi-stakeholder initiatives.
- Providing access to safe WASH to all employees across the value chain, and extending those provisions to surrounding communities, can also lead to intangible benefits such as improved public perception and increased brand value.

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The human right to water and sanitation

Of the world's estimated seven billion people, six billion have mobile phones, but only 4.5 billion have access to any type of toilet or latrine. Of the remaining 2.5 billion people, mostly in rural areas, 1.1 billion people still defecate in the open.¹ The countries where open defecation is most widely practiced are the same countries with the greatest childhood mortality, highest levels of under-nutrition and poverty, and most significant wealth disparities.

On July 28, 2010, through Resolution 64/292, the United Nations General Assembly explicitly recognized the human right to water and sanitation and acknowledged that clean drinking water and sanitation are essential to the realization of all human rights.²

This right was further defined by the World Health Organization (WHO) and the United Nations Development Programme (UNDP) **specifically for residential purposes** to include the following:

- Between 50 and 100 liters of water per person per day are needed to ensure the most basic needs;
- The water source has to be within 1,000 meters from the premises;
- Water costs should not exceed 3% of household income; and
- Collection time should not exceed 30 minutes.³

“Of the world’s estimated seven billion people, six billion have mobile phones, but only 4.5 billion have access to any type of toilet or latrine.”

Potential Risks Associated with Inaction

Water has emerged as a prominent business and public sector issue in recent years, driven by the lack of access to clean water and sanitation, interruptions in business operations and food production, climate change and increasing disclosure of water risks.¹⁷ According to the CDP Global Water Report 2012, 68% of respondents identify a broad array of water-related risks as being substantial to their business, up from 59% in 2011.¹⁸ Therefore, in addition to highlighting business benefits, it is also important to highlight the risks associated with inaction. **At premises under direct company control, such risks include:**

Increasing costs

- Inherent in provisioning safe access to WASH is a reliable and consistent supply of clean water. Water loss in the system may be one of the biggest threats to providing access to clean water and proper sanitation, as well as a substantial cause of rising costs to water providers (and, indirectly, to users who purchase water from providers and may have to pay higher costs due to internalization of losses). These higher costs could create an insurmountable financial barrier in some regions, leading to largely unsatisfactory water and sanitation conditions. There are cases where the system loss may be as high as 80% of the clean water distributed.¹⁹ Lack of access to sanitation also generates very high costs. In India for example, the total economic impacts of inadequate sanitation amount to US\$53.8 billion per year.²⁰

“By addressing issues critical to the communities in which they operate, companies can reduce their reputational risk and enhance their brand.”

Other risks associated with inaction across the broader value chain include:

Loss of license to operate and reputational risks

- Water and sanitation were formally recognized as human rights by the UN General Assembly in July 2010 and by the Human Rights Council in September 2010. In March 2011, the United Nations Human Rights Council released a report providing important guidance for companies and their obligation to respect human rights, including the human right to water and sanitation (i.e. Ruggie Principles).²¹ This obligation means that businesses should act with due diligence to avoid infringing on the rights of others and to address the adverse impact of activities with which they are involved. Given society’s basic expectation of businesses to respect human rights, failure to comply with this guidance could result in loss of social license to operate.
- Water demand is increasing compared to supply in many watersheds, especially in developing countries where economic and population growth is overburdening already scarce water resources and inadequate water and sanitation infrastructure. Perceived misuse of water resources can negatively

impact businesses and possibly result in revoking the company’s social license to operate within certain communities.

- Increasingly, companies understand the connection between reputation and social license to operate. As reputational risk increases, so does the potential for loss of social license to operate. As a result, companies are focusing on addressing issues traditionally considered external to their business such as access to clean water and sanitation. By addressing issues critical to the communities in which they operate, companies can reduce their reputational risk and enhance their brand.

WBCSD Pledge for Access to Safe Water, Sanitation and Hygiene at the Workplace

Access to safe drinking water and sanitation is a human right and part of core Millennium Development Goals (MDGs) defined by the United Nations – **yet more than 1.8 billion people²² depend on unsafe drinking water and an estimated 4.1 billion²³ don't have access to adequate sanitation.**²⁴ Addressing this vital human and socio-economic development issue is a key condition to achieving WBCSD's Vision 2050 of “9 billion people living well within the limits of the planet.”

Many businesses have operations, employees, contractors and customers in regions lacking safe water and sanitation. The economic, social and health consequences of this situation cause sickness and death, impair productivity, and restrict markets for some products and services.²⁵

Global businesses can lead the way to significantly increase the number of people who have access to safe, affordable, accessible and sustainable drinking water, sanitation and hygiene by providing adequate access at their own premises, with particular attention to locations at risk.

Leadership in access to safe water, sanitation and hygiene provides opportunities to improve employee health, satisfaction and productivity. It also represents a strong call from the business community for other stakeholders to act and solve this unacceptable crisis.

By signing this Pledge, companies commit to implementing access to safe water, sanitation and hygiene at the workplace at an appropriate level of standard for all employees in all premises under direct control within three years.

They also commit to championing such access among peers within their industry.



wbcds water

Visit www.wbcds.org/work-program/sector-projects/water/WASHatworkplace.aspx to sign the pledge and see existing company commitments to it.

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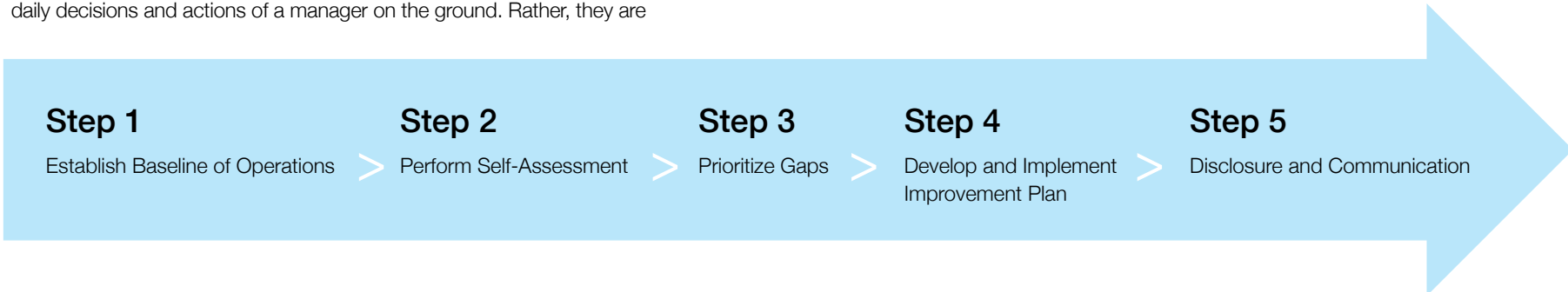
Guiding Principles

The guiding principles should support companies in the implementation of the Pledge and provide:

- A suggested process for companies to follow to provide access to safe WASH for employees (aiming to be integrated in existing water stewardship, health and safety, and/or other internal processes);
- Agreed points of reference on what represents leading practice in providing access to safe WASH in different workplaces;
- Suggestions for educational and behavioral change activities necessary to ensure the sustainability of an adequate WASH provision model;
- A tool to facilitate self-assessment by businesses against the points of reference; and
- Examples of the potential economic benefits of improving access to safe WASH for employees.

The guiding principles are not designed to be a step by step manual to direct the daily decisions and actions of a manager on the ground. Rather, they are

designed to provide guidance on the types of questions these managers should be asking, and to then help them develop a structured process for answering these questions and acting upon the results.²⁶ Further, this document has been designed to be a living document that will continue to evolve over the years as companies provide feedback on strategies that have worked and those that have not been as successful. **As you read through this document and begin to implement WASH within your operations, we encourage you to share your journey with us so that others can benefit as well. To provide feedback visit www.wbcsd.org/work-program/sector-projects/water/WASHatworkplace.aspx**



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Guidance on Water, Sanitation and Hygiene at the Workplace

This section of the guiding principles outlines a suggested process for companies to follow (see figure 1) in providing safe water, sanitation and hygiene in premises under a company's direct control (see Definitions).

Step 1: Establish Baseline of Operations

The first step in the WASH implementation process should be determining the current state of access to WASH provisions within the company's countries of operation.

- Download and utilize the WBCSD Global Water Tool (GWT)²⁷ to establish a baseline percentage of the population served with improved water²⁸ and sanitation²⁹ within the company's countries of operation. Note: Other tools or survey processes can be used to establish an initial understanding of access to these basic needs.³⁰

This baseline will help companies determine priority areas where actions should be taken first.

Step 2: Perform Self-Assessment

Once the company has an exhaustive inventory of WASH provisions available in the countries in which it operates, the next step is to understand the current level of WASH provisions provided at specific premises under direct company control and where there are gaps compared to Pledge compliance and leading practices.

- Use the *Self-Assessment Tool*, which can be downloaded from www.wbcscd.org/work-program/sector-projects/water/WASHatworkplace.aspx: Self-Assessment by Businesses as a checklist to conduct a corporate-wide survey to understand the WASH practices being implemented at each of the company's premises under direct control.
- The Self-Assessment Tool is aligned with the *WASH at Workplace Points of Reference* section and can be used to evaluate each facility's performance by comparing current state to Pledge compliance and leading practice.

Step 3: Prioritize Gaps

The Self-Assessment Tool's output is a gap assessment that provides insight into the areas that should be addressed immediately,³¹ in the medium-term³²

and over the long-term³³ to improve WASH performance within operations and across the value chain. The gap assessment will determine the location and size of the gaps compared to Pledge compliance and leading practice.

- Prioritize the gaps using the following dimensions:
 - Difference between company performance, Pledge compliance and leading practice;
 - Severity of risks associated with inaction; and
 - Ease of addressing improvement needs.

Step 4: Develop and Implement Improvement Plan

After the gaps have been prioritized, use a decision tree to develop an action plan that addresses the gaps and can create value to the company. The decision tree should focus first on compliance with local and national laws/regulations related to WASH practices, but companies are encouraged to go beyond simple compliance by developing internal practices that could be considered leading solutions. To ensure basic compliance, the decision tree should be enhanced by the use of audits, performed annually or at a frequency determined by previously conducted risk assessments, as a tool for mitigating risks that could arise from failing to meet the WASH points of reference.

Once the improvement plan has been developed, companies can focus on implementing action items to address gaps across all premises under direct company control. To help ensure the long-term success of WASH programs, the actions outlined in these improvement plans should be integrated into existing company policies and procedures such that WASH becomes an integral part of company operations.

Step 5: Disclosure and Communication

It is recommended that companies disclose progress made in implementing access to safe WASH at premises under direct company control at least annually to employees, as well as in public reporting and communications. Disclosure and communication demonstrates commitment and gives companies a platform to showcase the benefits of increased access to WASH provisions. Moreover, openness in disclosure and communication potentially can help give companies legitimacy to call for improvements in surrounding communities.

Company commitments to the Pledge will be featured at a dedicated location on the WBCSD website:

www.wbcscd.org/work-program/sector-projects/water/WASHatworkplace.aspx.

A separate dedicated platform may be developed at a later stage to ensure effective communication and knowledge sharing (e.g. case studies).

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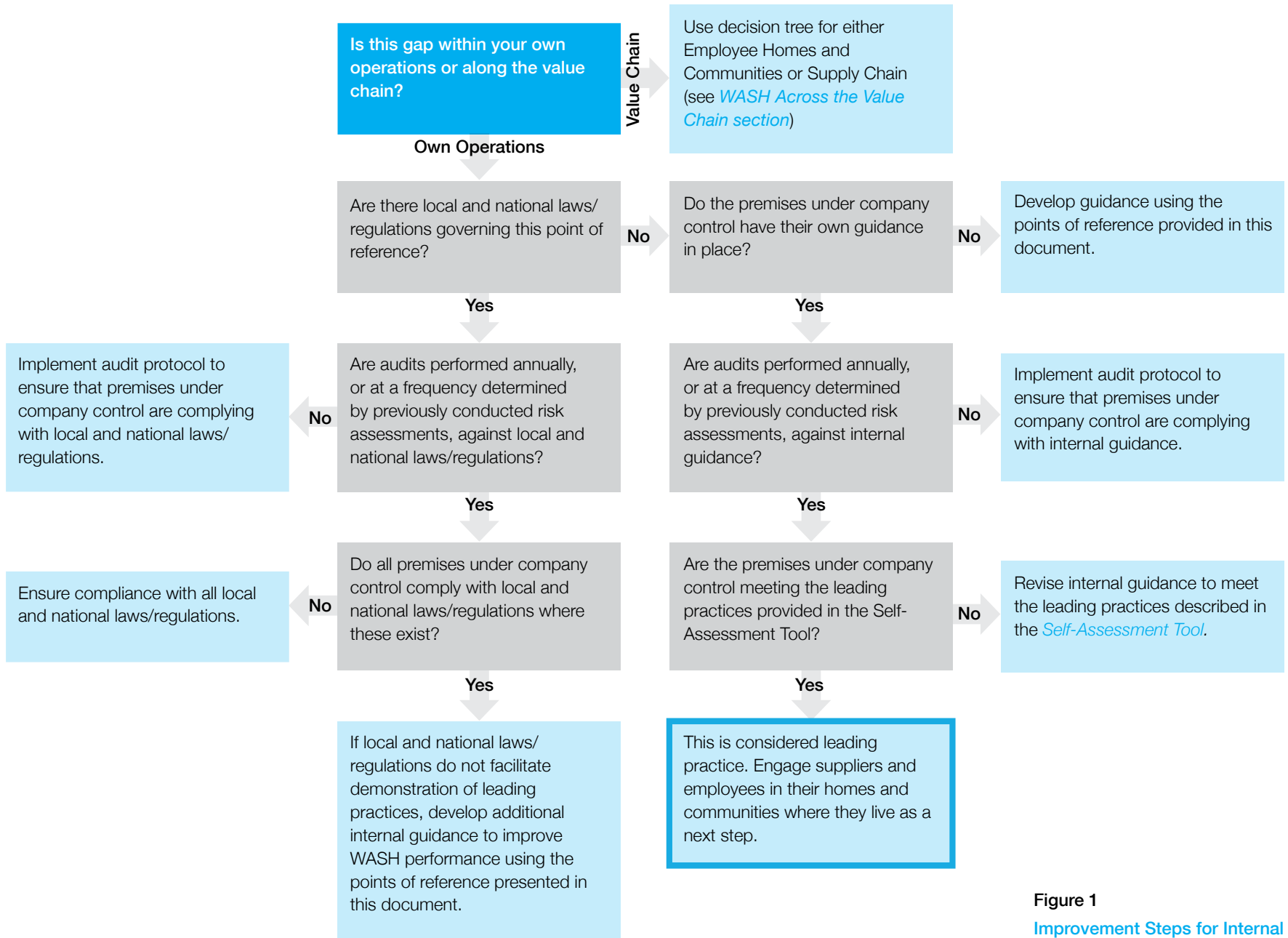








Figure 1
Improvement Steps for Internal Operations

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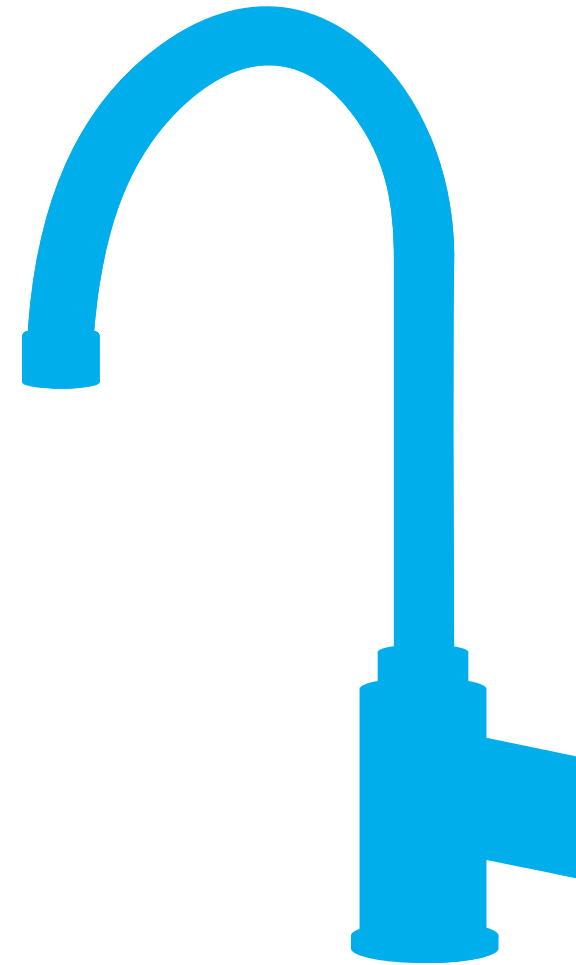
Water, Sanitation and Hygiene at the Workplace Points of Reference

This section covers points of reference on what represents leading practice in providing an appropriate standard for safe water, sanitation and hygiene in different workplaces (*see Definitions*).

1 General

- 1.1. Compliance with local and national laws/regulations:** All permanent facilities must comply with local and national laws and regulations where these exist. Where laws and regulations do not exist to govern a specific point of reference, the company should develop internal guidance that meets or exceeds the laws and regulations of the most stringent country that the company operates in and/or applicable international standards.
- 1.2. Provisions for temporary and mobile work sites:** Appropriate provisions, evaluated on a case-by-case basis at a level sufficient for the prevention of public health risk, and in compliance with local and national laws and regulations, must be made for all temporary and mobile work sites.

- 1.3. WASH installations, policies and procedures for shared facilities and provisions:** In all situations where employees, customers and the public share the use of water, sanitation and hygiene facilities and provisions (e.g. shopping mall restrooms), installations, policies and procedures must be established with the responsible body (e.g. shopping mall owner) to ensure that the needs of all such groups are met.









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“Drinking water stations should be disinfected at a minimum of once every two months or at an increased frequency if heavily used.”







2 Workplace Water Supply

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- 2.1 Availability of sufficient, safe, acceptable and physically accessible drinking water:** Sufficient, safe, acceptable and physically accessible drinking water must be provided to all employees at the workplace.³⁵ Water with quality levels sufficient for the prevention of public health risk³⁶ should be located at a convenient distance for employees and available at all times to provide for all drinking, sanitation and hygiene needs. Water should be free of charge for employee use at the workplace. If employers choose to allow employees to bring water home for domestic use (not required), then employers may charge an affordable price to employees for this use.
- 2.2 Water supply and safety/convenience improvements:** Basic, low-technology water supply improvements, and improvements that make the water supply safe and more convenient, must be provided at a minimum, as necessary. Improved water supply generally includes better access and protected water sources (e.g. stand post, borehole, protected spring or well, collected rainwater). Improvements that make the water supply safe or more convenient include water disinfection at the point of use (e.g. use of chlorine). High-technology improvements providing water that is safe for drinking, such as regulated water supply through a workplace connection, are strongly encouraged.³⁷

- 2.3 Location, cleaning, recharging and disinfection of drinking water stations:** All drinking water fountains, water coolers, or other storage vessels/sources should be positioned in appropriate clean areas and cleaned, recharged and disinfected on a regular basis to ensure that all risks of contamination and infection are avoided. Drinking water should be taken from the storage vessel/source in such a way that hands, cups, or other objects cannot contaminate the water. Drinking water stations should be disinfected at a minimum of once every two months or at an increased frequency if heavily used.³⁸
- 2.4 Drinking water testing:** Drinking water and drinking water facilities should be examined on a regular basis by appropriately trained and qualified staff to ensure that only water that is safe to drink is consumed by the users. Drinking water samples should be taken regularly, as required, or immediately upon changes in environmental conditions, outbreak of waterborne disease, or an increase in incidence of waterborne diseases.³⁹ Those responsible for staff training should be well versed in local water quality standards as well as the WHO’s *Guidelines for Drinking-Water Quality – Fourth Edition* with experience and skills in observation, sampling, and water quality analysis.⁴⁰ If the full guidelines cannot be enacted,

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companies should at least institute initial testing, particularly for pathogens and other common risk elements.

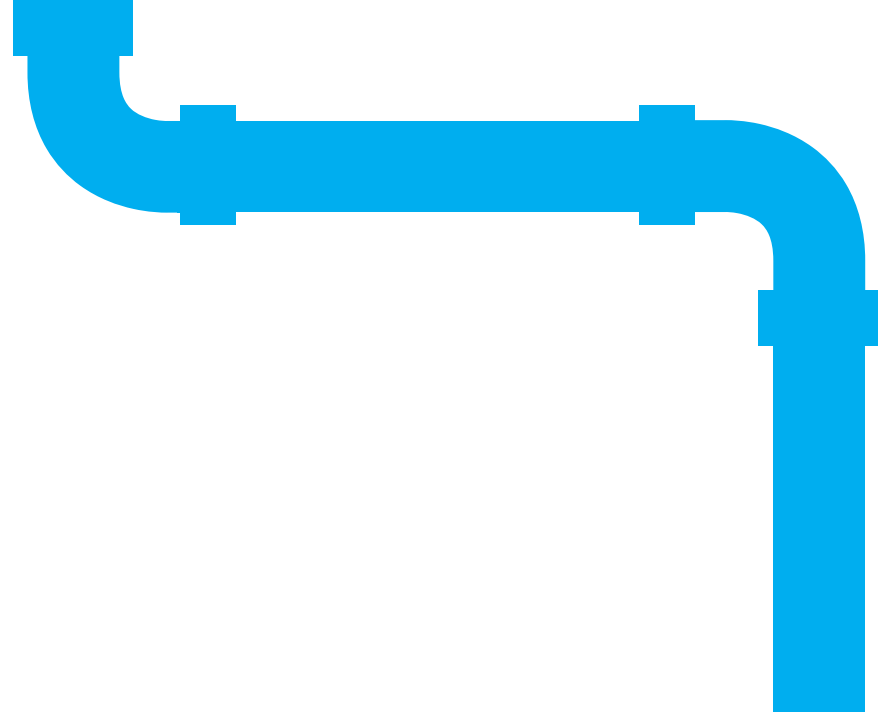
2.5 Accessibility of water for washing and personal hygiene: Water for washing, and where necessary (*see 4.3 below*), for showering and personal hygiene must be provided in all toilet or washroom areas. Where water is not provided to safe drinking water standards, the supply systems must be separated from drinking water provisions and clearly identified as being non-potable.

2.6 Water drainage and disposal systems: All washbasins, sinks, showers, etc. must be provided with adequate drainage and disposal systems. Drainage and disposal systems should be designed to rapidly and cleanly remove wastewater from the point where it is produced and should be designed to prevent contamination in the immediate vicinity and the broader environment through off-site or on-site adequate treatment facilities.⁴¹







2.7 Water supply system cleaning: Appropriate provisions must be made for the regular cleaning of all water supply systems. Water supply systems should be cleaned a minimum of two to four times per year to maintain the safety of the drinking water.⁴²

2.8 Water supply and drainage facility inspections/repairs: Appropriate provisions must be made for the regular inspection, maintenance and repair of water supply and drainage facilities to ensure that they are in proper working order. Water supply systems should be inspected at least annually and any required maintenance or repairs should be performed at that time. More frequent maintenance and repairs should be conducted if changes to water flow or quality are detected.⁴³

2.9 Water-saving technologies and awareness campaigns: The use of water-saving technologies (e.g. low-flow or dual-flush toilets, waterless urinals, water-efficient faucets and showerheads) and water-saving awareness campaigns (e.g. the U.S. Environmental Protection Agency's "We're for Water" campaign;⁴⁴ see also the Global Water Partnership's Ideas for Water Awareness Campaigns.⁴⁵) should be implemented in priority areas facing water scarcity or water stress, as determined by the WBCSD Global Water Tool⁴⁶ or similar water risk assessment tool.



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“Toilets must be designed taking into account requirements of local customs, religious and social traditions, and specific gender needs.”

3 Workplace Sanitation

3.1. Water sanitation services and safety/convenience improvements:

Basic, low-technology sanitation improvements and improvements that make sanitation safe and more convenient must be provided at a minimum. This generally involves better access and safer disposal of excreta (e.g. flush or pour-flush, septic tank, pit latrine, ventilated improved pit-latrine). High-technology improvements, such as a workplace connection to the sewerage system and treatment of all sewage, are strongly encouraged.⁴⁷

3.2. Toilet/urinal provisions: An appropriate number of properly constructed toilets and urinals must be provided at a rate of two toilet seats and two urinal facilities per forty-five male workers and three toilet seats per fifty females.⁴⁸ These must include adequate enclosures to provide gender separation, lockable doors to ensure personal safety and privacy, adequate lighting providing a nominal illumination level of 200 lumens per square meter (lux),⁴⁹ protection from weather, and exclusion of insects and vermin.

3.3. Toilet/urinal safety: Toilets and urinals must be designed and constructed to ensure the safe removal of urine and excrement, with collection and disposal in ways that do not create a danger to health or the environment.







3.4. Toilet/urinal lighting and ventilation: Appropriate provisions must be made in the design and construction of facilities to ensure adequate lighting for safety purposes (*see 3.2 above*) and ventilation to avoid odors causing discomfort for both users and people in the proximity. Toilet and urinal facilities should have permanent lighting fixtures and mechanical or natural ventilation that allows for the proper circulation of air to reduce odors.⁵⁰

3.5. Toilet/urinal design: Toilets must be designed taking into account requirements of local customs, religious and social traditions, and specific gender needs. This requires *inter alia* appropriate provisions for washing and wiping, pedestal and squat toilets and, if necessary, a mix of provisions. Facilities should be equipped with potable or non-potable water at a standard acceptable for cleansing hands (i.e. no health risk involved) and appropriate provisions should be tailored to local customs for anal cleansing.⁵¹

3.6. Toilet/urinal maintenance: Appropriate provisions must be made for the regular inspection, maintenance and repair of toilet facilities to ensure that they are in proper working order. Toilet facilities should be inspected at least monthly and any required maintenance or repairs should be performed at that time. More frequent maintenance and repairs should be conducted if issues are reported by employees.

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- 3.7. Sanitary product disposal:** Appropriate provisions for the safe disposal of sanitary products must be provided. Feminine care products should be discarded in waste containers that are properly lined with plastic, wax paper or other appropriate bags to protect others from coming into direct contact with soiled products.⁵²
- 3.8. Medical waste disposal:** Appropriate provisions for the safe disposal of medical waste must be provided. Blood, urine and other bodily secretions collected should be disposed in red bags specifically made to hold contaminated medical waste that is considered a bio-hazard. Scalpels, sharps and needles, as well as broken lab glass and blades, should be placed in specially made sharps containers that have medical waste warning labels on them.⁵³
- 3.9. Accommodations for disabled and elderly persons:** Facilities for disabled and elderly persons should always be provided to prevent discrimination in hiring. Such facilities should be constructed to provide disabled and elderly persons with the same standards for safe water, sanitation and hygiene as the remainder of the employee population and/or the general public.







- 3.10. Cleaning of sanitary installations and washrooms:** Appropriate provisions must be made for the regular cleaning of all sanitary installations and washrooms. Areas should be cleaned and disinfected once per day at a minimum⁵⁴ to maintain the appropriate level of sanitary conditions to protect the health and well being of employees.
- 3.11. “Extensive cleaning” and disinfection of washrooms:** Appropriate provisions must also be made for periodic “extensive cleaning” and disinfection of all sanitary installations and washrooms. An extensive cleaning should be performed at least once per week.

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“Regular training and awareness-building processes should be implemented for all employees.”

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4.1. Personal hygiene provisions: All toilet and washroom facilities should have appropriate provisions to ensure personal hygiene, including soap and mechanisms for hand and face drying. All washrooms should contain hand-washing basins with soap and potable or non-potable water at a standard acceptable for cleansing hands.⁵⁵ If non-potable water is used for washing it must be clearly communicated at the point of use.

4.2. Appropriate hand-washing behavior: Signage for appropriate hand-washing behavior should be provided, including two dimensions: critical times and technique. Critical times for hand-washing include: before food preparation, eating, feeding children, dressing wounds, and touching eyes, nose or mouth; and after using the toilet, cleaning babies’ bottoms, contact with bodily fluids, coughing, sneezing, or nose blowing, and contact with any potential contaminants.⁵⁶ Hand-washing technique includes use of water and soap or ash, washing both hands, rubbing hands together at least three times, and drying hands hygienically - by air drying or using a clean cloth/ paper.⁵⁷ *(See [Suggestions for Educational and Behavioral Change Activities section for additional details.](#))*

4.3. Showers and bathing facilities: Where the nature of the work necessitates showering before leaving the workplace (e.g. work involving contamination hazards or dusty, dirty, hot or strenuous workplaces),⁵⁸ all showers and bathing facilities should be equipped appropriately. One shower should be provided for every ten employees of each gender, or a numerical fraction thereof, who are required to shower during the same shift. Body soap or other appropriate cleansing agents should be provided convenient to the showers. Showers should be provided with hot and cold water feeding a common discharge line and employees who use showers should be provided with individual clean towels.⁵⁹

4.4. Hygiene training and awareness building: Regular training and awareness-building processes should be implemented for all employees. Special emphasis should be given to employees or other staff involved in food preparation and those exposed to specific health risks such as cleansers and mobile workers. Training should be a key component of onboarding for all new employees, and current employees should undergo annual refresher courses in proper sanitation and hygiene practices expected in the workplace.

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- 4.5. Sanitation and hygiene promotion material:** Training should be provided and supported by appropriate promotion material distributed and/or placed in toilets, washrooms and special risk areas (e.g. food preparation areas, hospitals, child care centers). Posters explaining proper sanitation and hygiene standards for employees should be placed in clearly visible locations within all washroom and toilet facilities. Education campaigns, such as the hand-washing campaign during the H1N1 pandemic, are particularly effective at building awareness and promoting behavioral changes. *(See [Suggestions for Educational and Behavioral Change Activities section for additional details.](#))*
- 4.6. Personal protective equipment (PPE) provisions:** Appropriate PPE should be provided to all those involved in the cleaning and maintenance of toilet washrooms and associated facilities. These individuals should wear PPE, such as gloves and non-slip rubber soled shoes, at all times when cleaning urinals, toilet bowls, showers, hand basins, mirrors, and other associated facilities.⁶⁰
- 4.7. Training for cleaning and maintenance staff:** Those involved in cleaning and maintenance should be trained in the proper cleaning techniques/ standards and the proper use of all cleaning materials to protect their own health, that of others, and the integrity and safety of the installations and

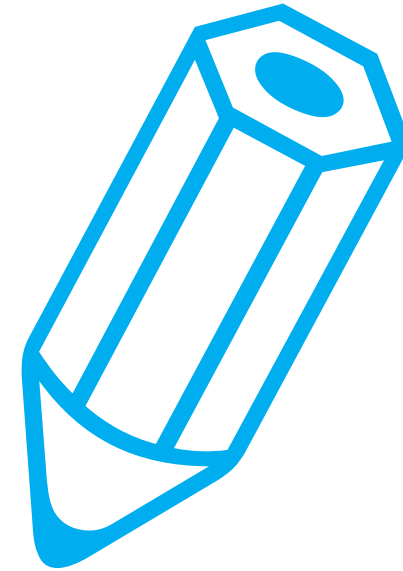


the environment. Employers should ensure that employees and relevant contractors follow the specific instructions associated with each cleaning product.

- 4.8. Cleaning equipment storage:** Cleaning equipment and materials should be stored in appropriate conditions and in places dedicated for this purpose. Facilities should have a dedicated cleaning products storage location, outside of common areas, that meets the needs of the guidelines on the cleaning supplies' packaging.⁶¹
- 4.9. Monitoring and reporting on water-related diseases:** Where workplaces include food and beverage handling or medical staff employment, monitoring and reporting on water-related diseases in the workforce should be implemented. This should be conducted in collaboration with local, national and international public health bodies.

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Suggestions for Educational and Behavioral Change Activities

This section provides suggestions for educational and behavioral change activities to support sustainable adoption of appropriate hygienic practices by employees. While this section is focused on how companies can improve sanitation and hygiene behaviors through education at their own premises, the same principles can be transferred both downstream to employees and their communities and upstream to suppliers. Providing comprehensive educational and behavioral change training to employees can help ensure that workers:

- Are aware of the importance of water quality and its relation to health, both at work and at home, and the need for safe water supplies;
- Accept the need for a proactive response when someone does not follow the standards;
- Understand their role in the surveillance process; and
- Have the necessary skills to perform this role.

Changing Behaviors With Effective Education Campaigns

An effective health education campaign should have the following essential characteristics for achieving long lasting behavioral changes:⁶²

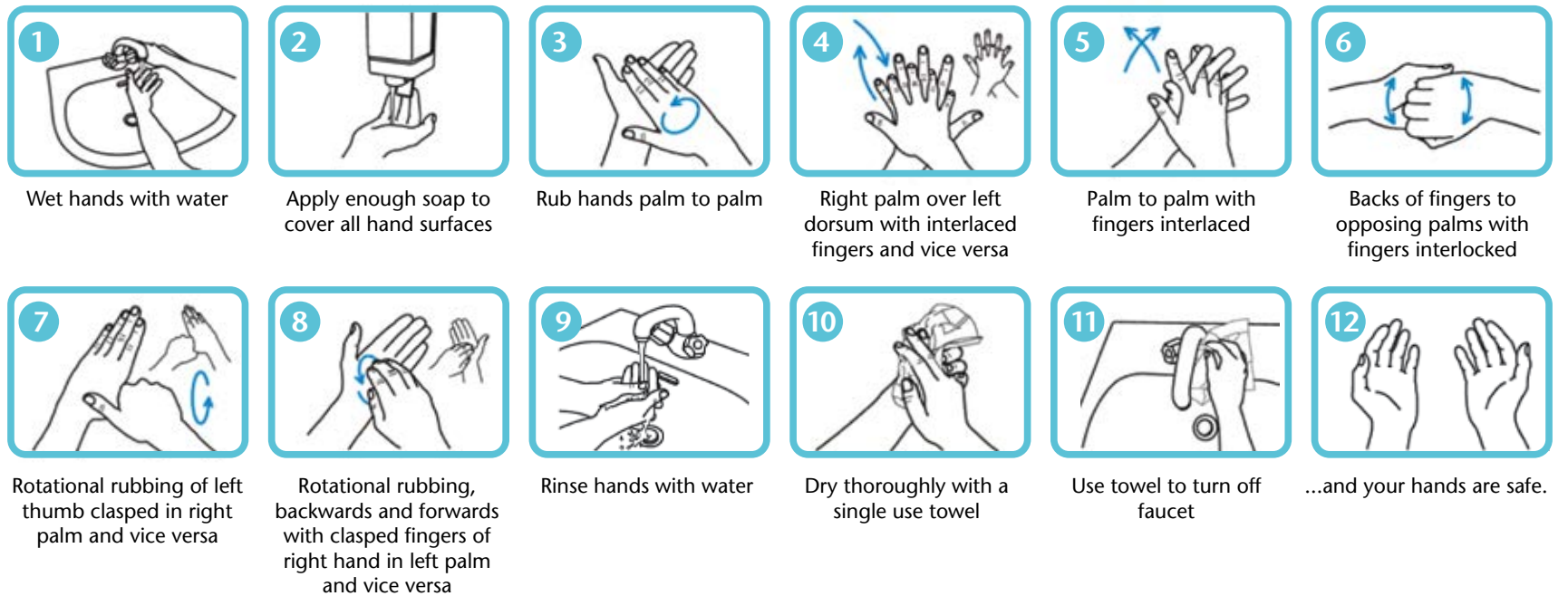
- Promote actions that are realistic and feasible within the constraints faced by the employees;

- Build on ideas and concepts that people already have, in addition to common cultural practices;
- Be repeated and reinforced over time using different methods;
- Use existing channels of communication;
- Attract the employees' attention;
- Use clear, simple language and local expressions, and emphasize the short-term benefits of action;
- Provide opportunities for dialogue and discussion to facilitate learner participation and feedback; and
- Use demonstrations to show the benefits of adopting the practices recommended and allow participants to practice and participate in the learning session.

For detailed materials on how to implement a hygiene program, refer to the WHO's *Fact Sheets on Hygiene Education*.⁶³ Additionally, for guidance on behavior change strategies please refer to the WHO's *Behaviour Change Strategies and Health: the Role of Health Systems*⁶⁴ or to the WHO's *Fact Sheets on Sanitation - Focusing on Key Behaviors*.⁶⁵

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Figure 2
Proper Hand Washing Technique Poster



Key WASH Education Topics⁶⁶

There are three major hygiene behaviors that need to be engrained in employees to ensure a sustainable WASH program: diligent protection of drinking water supplies, appropriate use of latrines, and hand-washing after use of the latrine and before handling food.







- **Protection of drinking water supplies:** Ensuring a water supply that is free of fecal contaminants and other water-related diseases is essential to maintaining health. Preventing source water contamination is often easier and less costly than treating contaminated water. Therefore, it is necessary to change behaviors that lead to potential contamination of primary drinking water sources (e.g. open defecation, open wastewater disposal, improper industrial waste disposal).

- **Use of latrines:**⁶⁷ All employees should use the appropriate latrines and any behavior that is contrary to this needs to be addressed;
- **Hand washing:** Proper hand washing behavior is an effective way to stop the spread of infection. The poster above can be used to promote proper hand washing technique.⁶⁸

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Water, Sanitation and Hygiene across the Value Chain

Value Chain Advocacy, Disclosure and Communication

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The human right to water and sanitation is a universal right for all people, including employees at their place of residence and employees working upstream in the value chain. This section includes a **plan to move from implementation at a company's own premises to advocacy across value chains (employee homes and communities and supply chains)**, and includes monitoring, evaluation and disclosures to demonstrate action by individual companies (see Figure 3). This represents a high-level overview of value chain engagement, with additional details to be provided at a later stage of implementation for effective communication and knowledge sharing (e.g. case studies).

Value Chain Advocacy

As detailed in the *Guidance on WASH at the Workplace* section, companies should provide safe water, sanitation and hygiene in premises under their direct control following a process that includes: establishment of a baseline of operations; performance of a self-assessment; prioritization of gaps; development and implementation of an improvement plan; and disclosure and communication. The same process can also be extended across the value chain to include employee homes and the communities where employees live, as well as upstream suppliers.

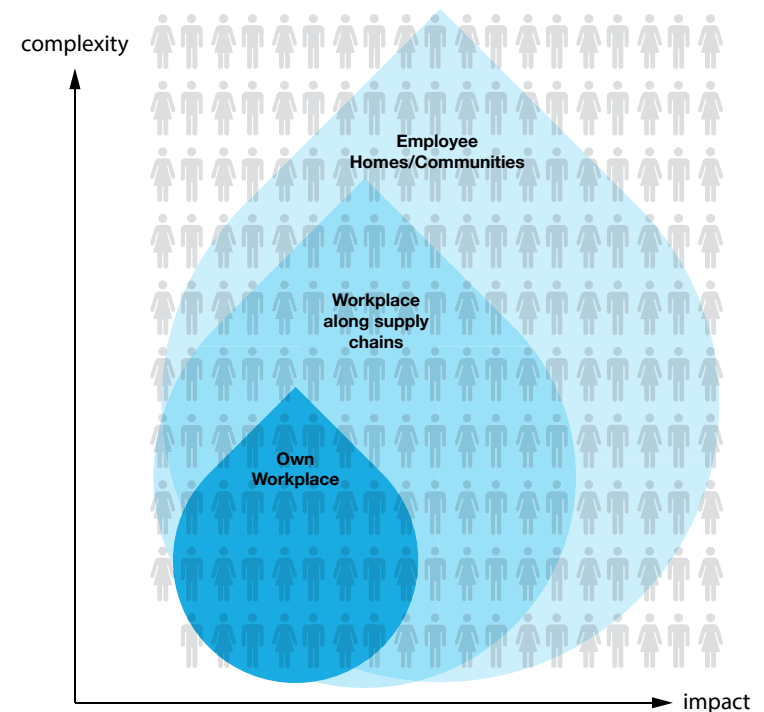








Figure 3
From Implementation at a Company's Own Premises to Promotion across Value Chains

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“Companies should tailor their programs to their interests and the needs of the local communities.”

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Employee Homes and Communities

As illustrated in *Figure 4*, the first downstream value chain improvement step involves utilizing the WBCSD Global Water Tool ²⁷ (or a similar risk assessment tool) to evaluate the percentage of the population that has access to improved water and sanitation within the company’s countries of operation. If the country the company is evaluating doesn’t have full coverage with improved water and sanitation, it is then recommended that companies gauge the level of safe WASH implementation for employees in their homes (e.g. survey, face-to-face communication via town hall meetings or similar approach). The selected forum should reference local and national laws and regulations, the *WASH points of reference* included in this document, and the leading practices provided in the *Self-Assessment Tool*. It is recommended that companies gauge the level of safe WASH implementation for employees in their homes at a frequency determined by previously conducted risk assessments and continue to monitor WASH implementation until companies are certain stable access can be provided into the future.

in their homes, work collectively with local communities, governments, NGOs, academia and other businesses to improve WASH provisions, or distribute the suggestions for educational and behavioral change activities provided in the preceding section of this document to improve WASH performance for employees in their homes.

In addition, companies are encouraged to work to improve WASH provisions in the communities in which their employees live. This is typically accomplished through collective action and partnerships with the local communities, governments, NGOs, academia and other businesses. Opportunities often include community-based water and sanitation programs and/or educational and behavioral change activities. Companies should tailor their programs to their interests and the needs of the local communities.

If less than 100% of employees have access to safe WASH in their homes, it should be determined whether the insufficient WASH implementation is due to financial restrictions, technical or infrastructure restrictions, and/or educational and behavioral change issues. Based on the findings, the company can either develop rewards and incentives for employees to improve access to safe WASH

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Supply chain

The following decision tree can be used to develop an action plan to address the identified gaps downstream of a company's own operations:

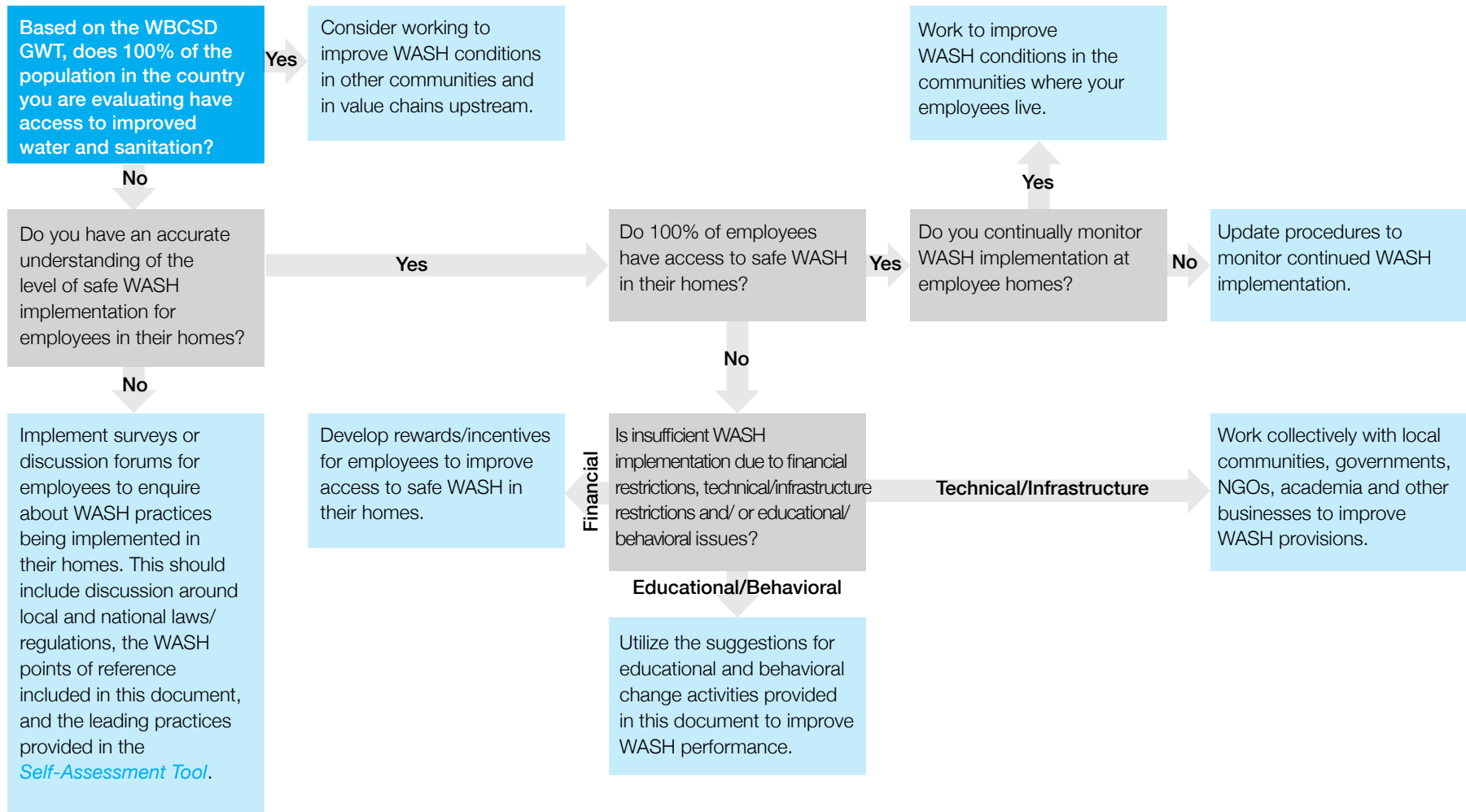


Figure 4
Improvement Steps for Employee Homes and Communities

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Supply Chain

As illustrated in *Figure 5*, the first upstream value chain improvement step involves development of a supplier code of conduct that is compliant with local and national laws and regulations and includes the WASH points of reference provided in this document. The supplier code of conduct should also strive to comply with the leading practices provided in the *Self-Assessment Tool*. It is then recommended that companies develop an internal or external auditing protocol for suppliers, or embed this protocol in existing programs, and perform supplier audits against the code of conduct annually or at a frequency determined by previously conducted risk assessments. Supplier audits are one of the best ways to ensure that suppliers are following the processes and procedures agreed to during the selection process. Some benefits of supplier audits include: a review of the supplier’s management philosophies and practices, implementation of an overall quality system, ability to address specific issues needing corrective action, understanding supplier capabilities and ability to drive supplier improvements as needed.

The supplier audit will identify non-conformances with the code of conduct and safe WASH provisions. After the audit, companies are encouraged to work directly with the supplier to develop an action plan with corrective actions that must be implemented by the supplier within an agreed-upon timeframe. The *Suggestions for Educational and Behavioral Change Activities* provided in the

“It is recommended that companies disclose progress made in implementing access to safe WASH across their value chain at least annually in public reporting or communications.”

preceding section of this document should also be utilized to improve WASH performance. A future audit ensures that these corrective actions have been successfully implemented. However, if suppliers fail to show progress against the identified corrective actions, it is recommended that the company terminate the supplier relationship.

Disclosure and Communication

It is recommended that companies disclose progress made in implementing access to safe WASH across their value chain at least annually in public reporting or communications. This disclosure and communication demonstrates commitment and gives companies a platform to showcase the benefits of increased access to WASH provisions. It can also give companies legitimacy to call for improvements in surrounding communities. The WBCSD website, www.wbcsd.org/work-program/sector-projects/water/WASHatworkplace.aspx, is another platform for external communication. A separate dedicated platform may be developed at a later stage to help ensure effective communication and knowledge sharing (e.g. case studies).

Given the interdependence between companies and surrounding communities within watersheds, disclosure and communication can also provide investors with a better understanding of how a company is working to mitigate risk, preserve essential water resources, and maintain its social license to operate

The following decision tree can be used to develop an action plan to address the identified supply chain gaps:

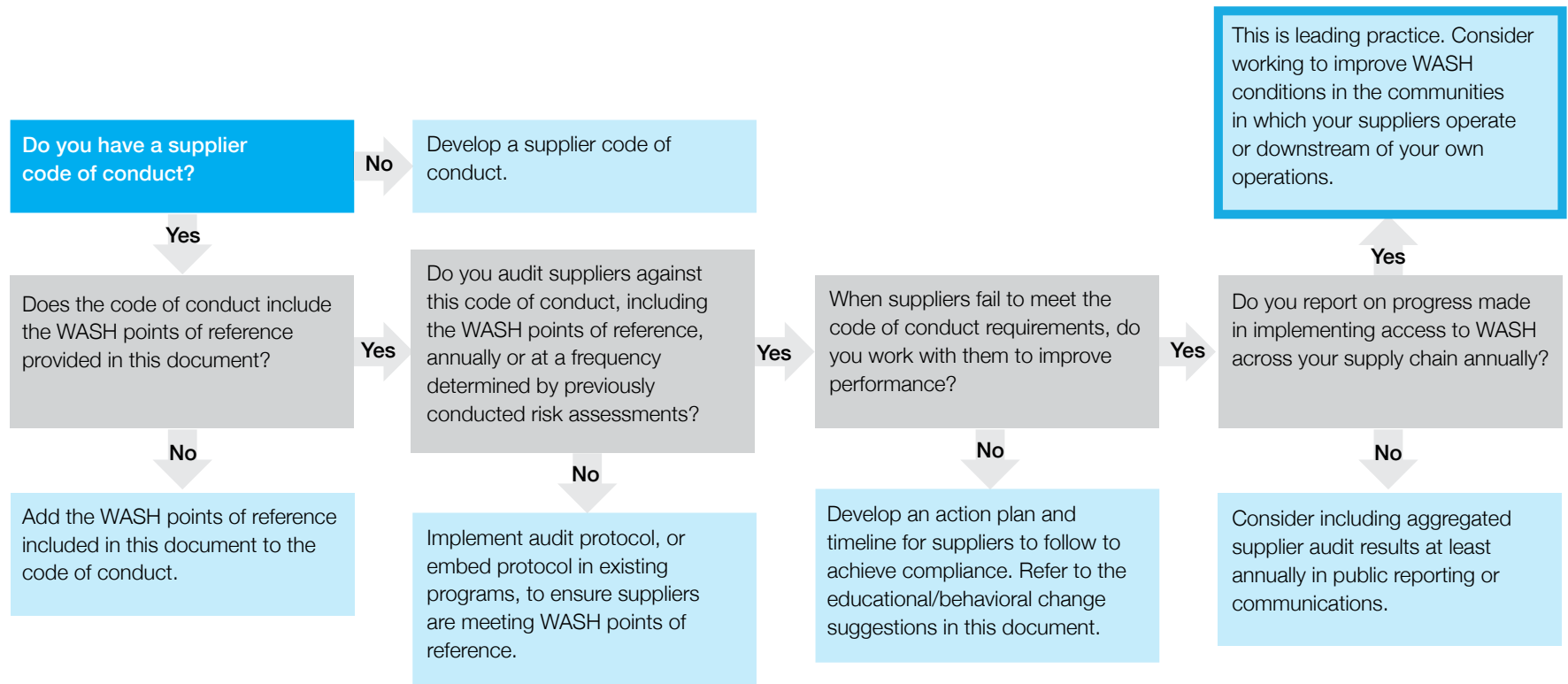


Figure 5
Improvement Steps for Supply Chain

Definitions

The following definitions are provided as a directional reference guide for companies as they work to implement access to safe WASH within their own operations. These definitions are not designed to be overly prescriptive, as every company and country will face unique challenges in their work environments that require some level of interpretation of these definitions by individuals more familiar with their specific issues.

Acceptable: At a level sufficient for the prevention of public health risk.⁷⁰ Water should be of an acceptable color, odor and taste for each personal use. All water facilities and services must be culturally appropriate and sensitive to gender, lifecycle and privacy requirements.⁷¹

Accessible: Everyone has the right to water and sanitation services that are physically accessible within, or in the immediate vicinity of, the household, educational institution, workplace or health institution.⁷²

Affordable: Water, and water facilities and services, should be free of charge for employee use at the workplace. If employers choose to allow employees to bring water home for domestic use (not required), then employers may charge employees an affordable price for this use.

Appropriate level of standard: Standards for access to safe water, sanitation and hygiene exist in different cultures and locations. Key issues – such as compliance with local and national laws and regulations, male and female needs, special needs of disabled people, and regular cleaning – must be addressed. Specific guidance from appropriate bodies, such as the WHO and the United States' Occupational Safety & Health Administration (OSHA), exists on the minimum level of drinking water quality, toilet design and maintenance, and hygiene to ensure a sanitary and healthy environment. (See the WHO's







Guidelines for Drinking-Water Quality – Fourth Edition and OSHA's Occupational Safety and Health Standards, General Environmental Controls: Sanitation.)^{73 74}

Appropriate provisions: Supply of necessities suitable for a particular person, condition, occasion or place. Such necessities must be at a level sufficient for the prevention of public health risk and in compliance with local and national laws and regulations where these exist.

Disinfection: The procedure whereby measures are taken to control or kill infectious agents on a human or animal body, on a surface or in washroom facilities by direct exposure to chemical or physical agents.⁷⁵

Improved sanitation: An improved sanitation facility is defined as one that hygienically separates human excreta from human contact.⁷⁶ Access takes into account all improved sanitation facilities, be they privately or publicly owned, and includes flush or pour-flush to a piped sewer system, septic tank, or pit latrine; ventilated improved pit latrine; pit latrine with slab; or composting toilet. Unimproved sanitation, defined as such due to being unsafe or costly or non-private, includes flush or pour-flush to elsewhere; pit latrine without slab or open pit; bucket; hanging toilet or hanging latrines; or no facilities or bush or field.⁷⁷ *For the purposes of this document, we refer to **safe sanitation**, taking into account disposal and treatment to ensure overall environmental health*

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safety, rather than **improved sanitation**, which is limited to ensuring hygienical separation of human excreta from human contact.

Improved water: An improved drinking water source is defined as one that, by nature of its construction or through active intervention, is protected from outside contamination, in particular from contamination with fecal matter.⁷⁸ It can be either privately or publicly owned, and includes piped water into a dwelling, plot, or yard; public tap/standpipe; tubewell/borehole; protected dug well; protected spring; or rainwater collection. Unimproved water supply, defined as such due to being unsafe or costly, includes an unprotected dug well; unprotected spring; cart with small tank/drum; tanker truck; bottled water; or surface water (e.g. river, dam, lake, pond, stream, canal, irrigation channels).⁷⁹ *For the purposes of this document, we refer to **safe water**, taking into account overall water quality, rather than **improved water**, which is limited to ensuring the safety of the water source.*

Leading practice: A leading practice is a set of guidelines, ideas, processes or methodologies that represents the most effective way of achieving a specific objective. A leading practice is one that has been demonstrated to work well and produce quality results, and is therefore recommended as a model. The essence of identifying and sharing leading practices is to learn from others and to re-use knowledge.

Mobile work site: Mobile work is characterized by routine and regular travel to conduct work in customer or other work sites, as opposed to a single authorized alternative work site. Examples of mobile work include site audits, site inspections, investigations, property management and work performed while commuting, traveling between work sites, or on temporary duty (TDY).⁸⁰

Permanent facility: A permanent facility refers to something that is built, installed, or established to serve a specific purpose.

Pledge: A formal promise or agreement to do or refrain from doing something.

Points of reference: Indicators used to orientate and assist in understanding a situation or communicating with someone.

Premises under direct company control: All company-owned and leased premises where employees are located while engaged in their work, including but not limited to offices, commercial buildings, operational plants, factories, warehouses, laboratories, retail locations, offshore operations, mobile and temporary work sites, land (e.g. agricultural fields). These are workplaces where implementation of access to safe water, sanitation and hygiene is under direct control of the company. Companies whose core business includes activities such as construction or mobile work sites, as well as contractors, need to

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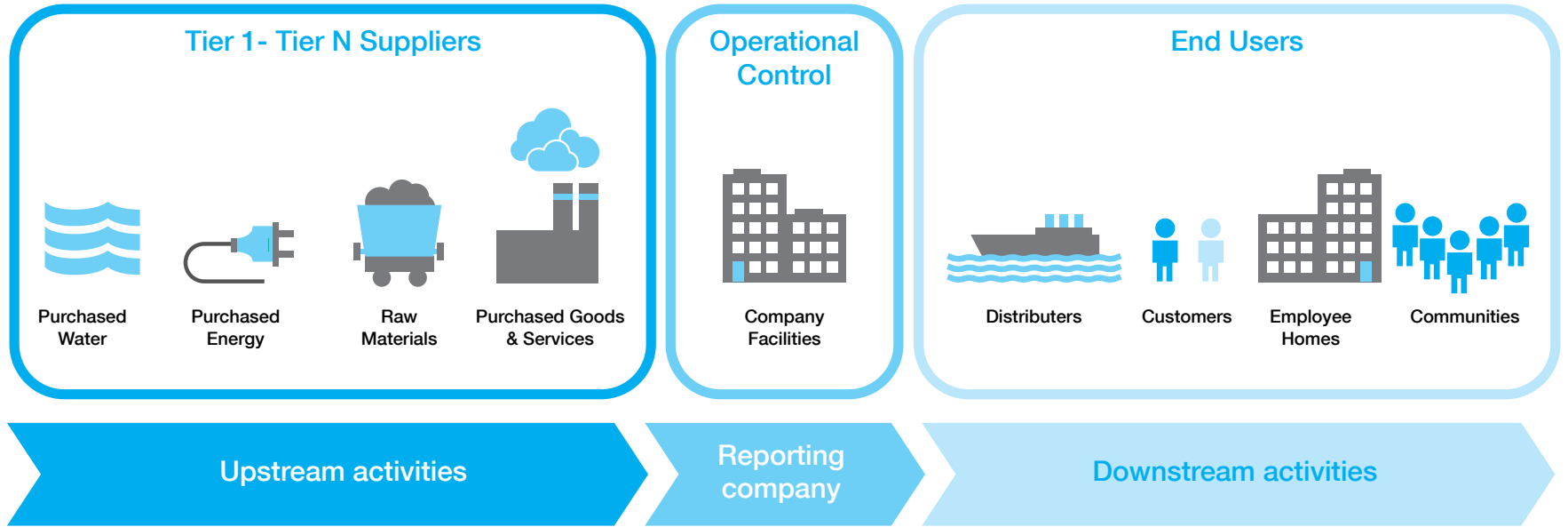








Figure 6 Value Chain Illustration (manufacturing company example)

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give appropriate attention to the temporary or special arrangements that such activities may require.

Safe drinking water: Does not represent any significant risk to health over a lifetime of consumption, including different sensitivities that may occur between life stages.⁸¹ The water required for each personal or domestic use must be free from micro-organisms, chemical substances and radiological hazards that constitute a threat to a person's health. Measures of drinking water safety are usually defined by national and/or local standards for drinking water quality. The WHO's *Guidelines for Drinking-Water Quality – Fourth Edition*⁸² provide a basis for the development of national standards that, if properly implemented, will ensure the safety of drinking water.⁸³

Sufficient: The water supply for each person must be sufficient to ensure that the most basic needs are met and health concerns are minimized.⁸⁴ Water should be available to employees at all times to provide for all drinking, sanitation and hygiene needs.

Temporary work site: Any workplace at which the work is realistically expected to last (and does, in fact, last) for one year or less, or the work is initially expected to last for one year or less, but at some later date it becomes apparent the work will exceed one year (the work is temporary only until the date of the changed expectation).⁸⁵

Tier 1 supplier (see figure 6): Direct (tier 1) suppliers are companies with which the reporting company has a purchase order for raw materials, components, goods, services, or manufacturing related to the production of products or services sold by the reporting company.

Tier 2 supplier (see figure 6): A supplier that provides or sells products or services directly to the reporting company's tier 1 supplier, without supplying a product directly to the reporting company. However, a single company may be a tier one supplier to one company and a tier two supplier to another company, or may be a tier one supplier for one product and a tier two supplier for a different product.

Tier N supplier (see figure 6): This term indicates the commercial distance in the relationship between the reporting company and the supplier (e.g. a tier 3 supplier provides or sells products or services to tier 2 companies).

Value chain: Value chain refers to all persons affected by water, sanitation and hygiene practices across all upstream and downstream activities associated with the operations of the reporting company, from upstream raw material extraction, to the eventual downstream use of sold products by consumers and end-of-life treatment of sold products after consumer use.

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Self-Assessment by Businesses

This section provides a Self-Assessment Tool that can be used by businesses to evaluate the implementation of access to safe WASH at the workplace in comparison to Pledge compliance and leading practices. It represents a method of assessing the current status of access to safe WASH at the workplace to gauge relevance, applicability, and efficacy, and to highlight the largest gaps to Pledge compliance and leading practices. This tool can be utilized to help identify areas for improvement, and to support decision-making regarding investments and priority actions by identifying the largest gaps between current operations and leading practice.

The structure of the Self-Assessment Tool is aligned with the *WASH at the Workplace Points of Reference*, and provides an overall company rating across the following categories:

- General;
- Workplace Water Supply;
- Workplace Sanitation; and
- Workplace Hygiene.

For each category, companies self-select a 0-3 rating based on their current performance, as measured by the provided scoring details and leading practice highlights. The identified gaps should then be prioritized (*see the Guidance*

on WASH at the Workplace section) by whether issues should be addressed immediately, in the medium-term and over the long-term to improve WASH performance within operations and across the value chain.

The Self-Assessment tool can be downloaded from
www.wbcd.org/work-program/sector-projects/water/WASHatworkplace.aspx.

Examples of Potential Economic Benefits

A broad range of economic and social benefits can result from improved access to clean drinking water and sanitation, ranging from the easily quantified to the intangible and difficult to measure. This section highlights two illustrative examples of the potential economic benefits (and costs) of improving access to safe WASH for employees. The aim of these examples is to capture the most significant and easily quantified benefits, which include:

- Productive work days gained and associated increase in revenue due to:
 - Fewer cases of diarrheal illness; and
 - More convenient access to water and sanitation at the workplace.

In addition to these benefits, long-term benefits can also be achieved by mediating several other impacts, including:

- Suffering from disease;
- Intangible aspects of environmental impacts (aesthetics) and user preference;
- Loss from marine fisheries;
- Non-use value of clean water resources such as 'existence' and 'bequest' values; and
- Losses to wildlife from polluted water resources and an unclean environment.

Other impacts with indirect connections to poor sanitation include:

- Use of water for irrigation purposes (and hence agricultural productivity);
- Impact of poor sanitation on foreign direct investment; and
- Impact of unimproved sanitation (and running water) in institutions, which affect life decisions of the population, especially the decision of women to take employment and of girls to enroll in or complete school.

Together, the quantitative and qualitative financial and economic losses will affect the overall economic situation of a company, including economic growth.⁸⁶ (See [Table 1](#) for a more detailed listing of potential benefits associated with improved drinking water supply and sanitation.)

The cost of providing improved water and sanitation services to those currently without access is also included here, to provide an indication of the effect on company revenues due to improved water and sanitation, fewer cases of diarrheal illness and more convenient access to water and sanitation.

Table 1 Benefits of improved sanitation and drinking water supply⁸⁷

Benefit	Water & Sanitation
Included Benefits in Examples	
Health Time value	<ul style="list-style-type: none"> • Averted cases of diarrheal disease • Travel and waiting time averted for collecting water and using facilities
Excluded Benefits from Examples	
Health	<ul style="list-style-type: none"> • Averted cases of helminthes (i.e. parasitic worms) • Averted malnutrition-related diseases • Decreased negative impacts on health-related quality of life
Health economic Other health	<ul style="list-style-type: none"> • Reduced costs (health care, productivity, mortality) related to diseases • Decreased dehydration from lack of access to water / not drinking due to poor latrine access (especially women) • Fewer flood-related health impacts (better water management)
Nutrients Energy	<ul style="list-style-type: none"> • Ability to use human waste or sludge as soil conditioner and fertilizer in agriculture • Ability to use human (and animal) waste as input to biogas digester leading to fuel cost savings and income opportunities
Education	<ul style="list-style-type: none"> • Improved educational levels due to higher school enrolment and attendance rates • Positive impact on education on childhood malnutrition
Water treatment	<ul style="list-style-type: none"> • Less household time spent treating drinking water, including boiling and maintaining rain water collection systems
Water security Environment Leisure and quality of life	<ul style="list-style-type: none"> • Availability of safe treated wastewater for use in agriculture • Improved quality of water supply and related savings • Increased leisure and non-use values of water resources and reduced effort of averted water hauling and gender impacts • Improved safety, privacy, dignity, comfort, status, prestige, aesthetics, gender impacts
Reduced access fees Property Income	<ul style="list-style-type: none"> • Reduced monetary payment for toilets that charge a fee • Increased property value • Increased incomes due to more tourism income and business opportunities • Increased productive uses

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Piped Water Connections and Septic Tanks in Urban Cambodia⁸⁸

Company ABC has annual revenue of US\$85 million and 1,200 employees in the banking industry in urban Cambodia. Currently, 85 percent of employees have access to improved water and sanitation at the workplace. To comply with the WBCSD Pledge for Access to Safe WASH at the Workplace,⁸⁹ Company ABC has decided to install piped water connections for drinking water supply and septic tanks for sanitation services. Capital costs and three years of ongoing costs for the installations are estimated at US\$19,400; however, the associated increase in the number of productive work days due to fewer cases of diarrheal illness and more convenient access to water and sanitation at the workplace is expected to increase revenue by US\$3.2 million over three years.

Cost of Providing Access to Improved Water and Sanitation

At Company ABC, 180 employees currently do not have access to improved water and sanitation. If Company ABC provides these employees with access to improved water and sanitation within three years of signing the Pledge, this would cost:^{90 91}

- Piped water connection capital cost = US\$5,200
- Piped water connection ongoing cost = US\$10,000 over three years
- Septic tank installation capital cost = US\$1,100
- Septic tank ongoing cost = US\$3,100 over three years
- **Total cost for improved water and sanitation = US\$19,400**

Productive Work Days Gained as a Result

Assuming 8 working hours per day and 236 work days per year in Cambodia,⁹² if Company ABC provides all employees with access to improved water and sanitation, this would result in:⁹³

- Productive work days gained per year due to fewer cases of diarrheal illness = 600
- Productive work days gained per year due to more convenient access to water and sanitation at the workplace = 2,900
- **Total productive work days gained per year = 3,500**

Increase in Revenue due to Improved Water and Sanitation

Understanding that Company ABC has annual revenue of US\$85 million, 1,200 employees and a 1% absenteeism rate, each employee accounts for approximately US\$300 in revenue per day. If employees cannot contribute to company revenue when absent and there are no constraints on Company ABC's ability to generate revenue, an increase of 3,500 productive work days will lead to US\$1.1 million in annual revenue, and US\$3.2 million over three years.

Table 2 Net Revenue Increase Over 3 Years

Total Revenue Gains	Total Costs	Net Revenue Increase
US\$3.2 million	US\$19,400	US\$3.1 million

Therefore the net increase in revenue over three years is US\$3.1 million. **This equates to an increase in revenue of approximately 1.2 percent annually.**

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Wells and Wet Pit Latrines in Rural Ethiopia⁹⁴

Company XYZ has annual revenue of US\$1.5 billion and 6,500 employees in the transportation industry in rural Ethiopia. Currently, 80 percent of employees have access to improved water and sanitation at the workplace. To comply with the WBCSD Pledge for Access to Safe WASH at the Workplace, Company XYZ has decided to install wells for drinking water supply and wet pit latrines for sanitation services. Capital costs and three years of ongoing costs for the installations are estimated at US\$16,300; however, the associated increase in the number of productive work days due to fewer cases of diarrheal illness and more convenient access to water and sanitation at the workplace is expected to increase revenue by US\$63.2 million over three years.

Cost of Providing Access to Improved Water and Sanitation

At Company XYZ, 1,300 employees currently do not have access to improved water and sanitation. If Company XYZ provides these employees with access to improved water and sanitation within three years of signing the Pledge, this would cost:^{95 96}

- Well installation capital cost = US\$7,200
- Well ongoing cost = US\$2,000 over three years
- Wet pit latrine installation capital cost = US\$5,500
- Wet pit latrine ongoing cost = US\$1,600 over three years
- **Total cost for improved water and sanitation = US\$16,300**

Productive Work Days Gained as a Result

Assuming 8 working hours per day and 250 work days per year in Ethiopia, if Company XYZ provides all employees with access to improved water and sanitation, this would result in:⁹⁷

- Productive work days gained per year due to fewer cases of diarrheal illness = 1,600
- Productive work days gained per year due to more convenient access to water and sanitation at the workplace = 20,800
- **Total productive work days gained per year = 22,400**

Increase in Revenue due to Improved Water and Sanitation

Understanding that Company XYZ has annual revenue of US\$1.5 billion, 6,500 employees and a 1% absenteeism rate, each employee accounts for approximately US\$940 in revenue per day. If employees cannot contribute to company revenue when absent and there are no constraints on Company XYZ's ability to generate revenue, an increase of 22,400 productive work days will lead to US\$21.1 million in annual revenue, and US\$63.2 million over three years.

Table 3 Net Revenue Increase Over 3 Years

Total Revenue Gains	Total Costs	Net Revenue Increase
US\$63.2 million	US\$16,300	US\$63.2 million

Therefore the net increase in revenue over three years is US\$63.2 million. **This equates to an increase in revenue of approximately 1.4 percent annually.**



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- 33 > 5 years
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