

CITYWIDE INCLUSIVE SANITATION:

AN URBAN SANITATION SERVICE FRAMEWORK FOR SUSTAINABLE DEVELOPMENT GOAL 6

WHAT IS CWIS?

Citywide Inclusive Sanitation (CWIS) is a public service approach to planning and implementing urban sanitation systems to achieve outcomes summarized by Sustainable Development Goal 6: safe, equitable, and sustainable sanitation for everyone in an urban area, paying special attention to the needs of the poor, the marginalized, and women and girls.

To advance and sustain SDG outcomes at a meaningful scale, all CWIS systems must demonstrate three core functions:

- A responsible authority(ies) is executing a public mandate for inclusive urban service delivery;
- The authority(ies) is accountable for performance against its mandate;
- Resource management and planning reflect authority mandates, priorities, and performance accountability.

A public service approach to urban sanitation acknowledges the market failures inherent to urban sanitation systems. This approach does not preclude, but rather improves private sector incentives to expand investments and stimulate innovations along all stages of the sanitation value chain.

CWIS focuses on outcomes and system functions rather than specific system designs. So, sanitation authorities may and must consider the range of possible technologies, service and business models.

Clear roles, responsibilities, and relationships and data-driven management information systems are required for meaningful collaborations among relevant stakeholders including national- and city-level leaders, the private sector, development professionals and donors, communities, and of course, customers.

Formalizing service delivery systems helps stakeholders share responsibilities and accountability at all levels in pursuit of SDG 6 outcomes.

THE NEED FOR CITYWIDE INCLUSIVE SANITATION (CWIS)

Access to safe sanitation and hygiene is a basic human need. Yet, nearly 1 billion people live in slums with poor or no sanitation. In cities across low- and middle-income countries, more than 50 percent of human waste is discharged into the environment untreated.

The challenges of inadequate sanitation services tend to be concentrated in urban areas, where rapid urban growth, climate change, and unreliable water services have an acute impact on resources and people.¹ The United Nations estimates that 95 percent of urban expansion in the next decade will take place in developing world, the populations in Asian and African cities having doubled in the last 15 years and projected to double again by 2030.²

Recognizing the scale and weight of this challenge, the United Nations calls for safe and equitable sanitation for all under Sustainable Development Goal (SDG) 6. Safe, equitable water and sanitation services are critical component of Safe and Resilient Cities (SDG 11), they support good health and well-being (SDG 3) and gender equality (SDG 5), and forward-facing approach to urban sanitation must be driven by and inform urban climate action.

Touching so many facets of human and urban development, sanitation remains a powerful instrument to address poverty and inequality.

Cities across low- and middle-income countries receive insufficient financial and technical assistance for urban sanitation. But even in cases where large projects are executed, urbanization, infrastructure depreciation, and other challenges are effectively outpacing progress. The World Health Organization and UNICEF report that between 2012-2017, sanitation rated as “safe for people” increased by only 3 percent worldwide.³ Projects largely consist of sewer infrastructure investments that rarely reach low-income communities and pilot projects that struggle to achieve implementation. Both fall short of development goals due to social and gender inequalities, weak governance and missing institutional incentives.

To achieve the outcomes envisioned by the SDGs, all sector and development professionals require a paradigm shift in how they think about, plan for, and practice sanitation delivery. The Bill & Melinda Gates Foundation is part of a growing alliance of stakeholders that see the promise in the approach known as **CITYWIDE INCLUSIVE SANITATION**.⁴

THE CONSEQUENCES OF POOR SANITATION

Diseases related to poor sanitation and hygiene claim the lives of 500,000 children under the age of five every year.⁴ Poor sanitation also degrades the environment, undermines economic activity and growth, and stifles urban development.

¹World Resources Institute, “Aqueduct Water Risk Atlas,” <https://www.wri.org/aqueduct>

² United Nations, “World Urbanization Prospects,” 2018, <https://esa.un.org/unpd/wup/>

³ WHO/UNICEF Joint Monitoring Program for Water Supply, Sanitation and Hygiene, “2017 Update and SDG Baselines,” June 2017

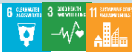
⁴ Schrecongost et al, “Citywide Inclusive Sanitation: A public service approach for reaching the urban sanitation SDGs.”

Front. Environ. Sci., 12 February 2020

WHAT DOES THE CWIS FRAMEWORK INCLUDE?

CWIS builds on decades of practice and lessons about public goods, market failures, and the delivery of basic urban services. This positions the approach to more effectively pursue the targets of SDG 6—specifically, SDG 6.2, 6.3, 6A, and 6B and SDG 11.1, 11.3. As seen below, various SDGs map to the Core CWIS Outcomes of equity, safety, and sustainability.

Three core functions--Responsibility, Accountability, and Resource Planning and Management—are required of any effective sanitation service delivery system to achieve the outcomes of citywide Equity, Safety, and Sustainability. This CWIS Framework allows for and encourages flexibility in how each of those functions are achieved in different contexts. The foundation of any CWIS system depends on robust, institutionalized performance indicators and monitoring systems that inform strategy, planning, and decisions at multiple levels of governance, financing and decision making.

CWIS SERVICE FRAMEWORK			
	EQUITY 	SAFETY 	SUSTAINABILITY 
CORE CWIS OUTCOMES	Services reflect fairness in distribution and prioritization of service quality, prices, and deployment of public finance/subsidies.	Services safeguard customers, workers, and communities from safety and health risks—reaching <i>everyone</i> with safe sanitation.	Services are reliably and continually delivered based on effective management of human, financial and natural resources.
CORE CWIS FUNCTIONS	RESPONSIBILITY An authority(ies) executes a clear public mandate to ensure safe, equitable, and sustainable sanitation for all.	ACCOUNTABILITY Authorities' performance against their mandate is monitored and managed with data, transparency and incentives.	RESOURCE PLANNING AND MANAGEMENT Resources—human, financial, natural, assets—are effectively managed to support execution of mandate across time/space.

CWIS builds on, rather than replaces, existing systems of sanitation delivery. To accelerate progress toward target outcomes, it reimagines many traditional approaches. Overall, CWIS promotes sanitation systems that foster a process of continuous improvement. Project-based investments have traditionally been standalone projects; CWIS projects explicitly strengthen or inform public systems required for better and more inclusive human waste management outcomes.

Pursuit of CWIS systems, based on the foundation of a clear, inclusive public mandate, better incentivizes private sector participation in delivering those services. It creates demand for technology and business model innovation. Investments made by the private sector can become meaningful, formalized, and relevant beyond niche markets and pilots.

Pursuit of CWIS outcomes provides guidance for cities to consider decentralized sanitation approaches such as non-sewered sanitation (NSS), fecal sludge management (FSM) and new sanitation technologies and market models along with conventional systems, based on cities' needs and resources. Mainstreaming and normalizing a broader set of implementation tools increases authorities' ability to deliver sustainable, adaptable, and resilient infrastructure and services when and where they are needed most.

With its focus on equity, a CWIS approach challenges investment and service delivery norms that have excluded many communities and marginalized groups from safe sanitation facilities and services. A CWIS approach includes their interests and voices as core objectives of and resource for planning, design, and implementation of services.

Addressing the urban sanitation challenge within a public service, CWIS frame requires a shift in our common understanding of what is needed and what is achievable. The Seven Principles below, informed by and revised in several multi-stakeholder regional dialogues, suggest a vision and direction for CWIS implementation. They offer a point of departure for a new set of conversations among partners in government, finance, urban planning, service authorities, communities, regulators, and others working for smarter, more ambitious, and more meaningful shifts in the performance of the urban sanitation sector.

New technologies being developed through the foundation's sanitation portfolio have advanced the NSS concept to ensure that new products in this category are not only practical and affordable for billions of people but also effective at meeting the highest standards for health and human safety. This could represent a "second gold standard" of comprehensive, effective sanitation.

New non-sewered toilet technologies and waste management and treatment options are not stopgap remedies. They are innovations that fill voids and leapfrog the incumbent range of systems, enabling affordable, inclusive, and safe sanitation that reflects the leading technology innovations and urban challenges of the 21st century.

SEVEN PRINCIPLES FOR CITYWIDE INCLUSIVE SANITATION

1. EVERYONE IN AN URBAN AREA, INCLUDING THE URBAN POOR, BENEFITS FROM EQUITABLE, SAFE SANITATION SERVICES

- Inclusive. Legal mandates are based on urban planning principles, without restrictions based on land tenure, hardware type, or local political boundaries. The needs of transient and permanent workers and downstream communities are met.
- Equitable. Prices reflect service levels, affordability, availability, and legitimacy of public finance decoupled from hardware type or on-plot/off-plot siting. Subsidized finance prioritized for the poorest.
- Safe. Users' waste is safely managed, and communities are free of others' waste.

2. GENDER AND SOCIAL EQUITY ARE DESIGNED INTO PLANNING, MANAGEMENT, MONITORING

- Those who are marginalized, women and girls and those without formal land tenure or access to sewers, are intentionally engaged in decision making.
- Users' and workers' needs, values, constraints, and voices are understood and incorporated into hiring, service delivery planning, and service delivery.
- Workers' health and rights are protected by occupational health and safety measures.

3. HUMAN WASTE IS SAFELY MANAGED ALONG SANITATION SERVICE CHAIN, STARTING WITH CONTAINMENT

- Infrastructure and service delivery systems protect workers, households, communities at all stages from containment through disposal/reuse.
- Containment and connections are managed to protect groundwater and environmental health.
- Hardware investments and service models position resource recovery as a tool to incentivize safe waste management.

4. AUTHORITIES OPERATE WITH A CLEAR, INCLUSIVE MANDATE, ALONG WITH PERFORMANCE TARGETS, RESOURCES, AND ACCOUNTABILITY

- Mandate for urban sanitation is clearly defined and assigned to service authority(ies) without overlap, explicitly prioritizing serving the poor and captured in key performance indicators.
- Authority(ies) have performance indicators and meet data-informed progressive targets.
- Service authority performance targets are monitored and tied to regulatory penalties and incentives.
- Financing and revenue opportunities are designed to sufficiently support implementation of mandates.

5. AUTHORITIES DEPLOY A RANGE OF FUNDING, BUSINESS, AND HARDWARE APPROACHES—SEWERED/ NON-SEWERED—TO MEET GOALS

- Sanitation service mandates are technology agnostic. Planning and investments support incremental and integrated systems that prioritize resources for achieving safety, equity, and sustainability.
- Service authorities deploy a range of business models to reach different customer segments within a city efficiently and equitably, including engaging the private sector to execute services when appropriate.

6. COMPREHENSIVE LONG-TERM PLANNING FOSTERS DEMAND FOR INNOVATION AND IS INFORMED BY ANALYSIS OF NEEDS/RESOURCES

- Investment and finance decisions are based on activity-based accounting of costs and revenues and inclusive performance targets.
- Investment and planning are informed by climate change, water, and energy resource constraints.
- Performance incentives foster service authority capacity, responsiveness, and innovation.
- Investment planning and allocation processes are transparent and engage relevant stakeholders.
- Processes are coordinated with those of other urban investments and services, e.g. neighborhood upgrades, water services, storm and greywater management, and solid waste management.

7. POLITICAL WILL AND ACCOUNTABILITY SYSTEMS INCENTIVIZE SERVICE IMPROVEMENTS IN PLANNING, CAPACITY, AND LEADERSHIP

- Commitment to safe inclusive urban sanitation is demonstrated at multiple levels of government.
- Budget allocations and expenditures are transparent and based on equity and performance accountability.
- Accountability systems such as performance regulators are designed to be autonomous and independent and to empower voices of marginalized communities.
- Service authorities have support from politicians for effective institutional reforms, including tariff-setting and enforcement.

WHERE DOES CWIS COME FROM?

By 2015, the sector had failed to meet Millennium Development Goal sanitation targets that focused on access to toilets and instead committed to more ambitious SDG targets for safely managed sanitation services covering all stages of the sanitation chain.

Recognizing the scale of the urban sanitation challenge—its disproportionate burden on the urban poor and marginalized, and the limited progress of prevailing approaches—a global movement formed to radically rethink approaches to achieving the target outcomes of SDG 6, prioritizing inclusion.

CWIS gained traction⁶ and is increasingly accepted by government, development, and financing stakeholders in the sector globally.

WHAT'S NEXT FOR CWIS?

CWIS implementation requires long-term planning, technical innovation, institutional reform, and financial mobilization, in conjunction with political will and technical and managerial leadership to support cities through the necessary systems change.

Several organizations have resources and examples of CWIS efforts and analysis in the sector, including:

- [Global Waters](https://www.globalwaters.org/resources/assets/water-currents-citywide-inclusive-sanitation): <https://www.globalwaters.org/resources/assets/water-currents-citywide-inclusive-sanitation>
- [The World Bank Group](https://www.worldbank.org/en/news/video/2017/08/21/citywide-inclusive-sanitation): <https://www.worldbank.org/en/news/video/2017/08/21/citywide-inclusive-sanitation>
- [SuSanA](https://www.susana.org/en/knowledge-hub/shit-flow-diagrams-sfds-excreta-flow-diagrams/sfd-promotion-initiative): <https://www.susana.org/en/knowledge-hub/shit-flow-diagrams-sfds-excreta-flow-diagrams/sfd-promotion-initiative>
- [WaterAid](https://washmatters.wateraid.org/publications/urban-sanitation-tools-and-approaches): <https://washmatters.wateraid.org/publications/urban-sanitation-tools-and-approaches>

The Bill & Melinda Gates Foundation is working within strategic global partnerships to advance the CWIS framework and principles and to guide the reframing of urban sanitation strategies and investments, with a focus on equity, safety, and sustainability.

LEARNING AND PRACTICE IN EIGHT CITIES ACROSS AFRICA AND SOUTH ASIA

The Water, Sanitation, and Hygiene (WSH) team at the Bill & Melinda Gates Foundation invested in eight city partnership investments managed around CWIS approach and principles, following a year of city landscaping and assessment exercises. These city-level grants support utilities and cities in Senegal, Uganda, Zambia, Bangladesh, and India. City engagements are strengthened by portfolio-level investments in monitoring, information exchange, and research and technical assistance for gender and social mainstreaming.



⁶ 2017 witnessed a widely circulated Call to Action to evolve the CWIS implementation strategy. Subsequently, a series of workshops across four continents, convening public, private and development stakeholders from over 40 countries, resulted in the Seven CWIS Principles shared on the prior page.