CEO WATER MANDATE

WASH4WORK

WASH 4WORK

WASH Benefits Accounting Framework

Guidance for Use Webinar

October 30, 2024

LimnoTech

Water Environment | Scientists Engineers

Guidance for Use Webinar

WASH Benefits Accounting Framework

AGENDA (:60)

1. Introduction to Applying the Framework
2. WASH Project Scenarios
3. Step 1: Understand WASH Risks & Identify Gaps in WASH Access
4. Step 2: Define Project Goals, Activities & Partners
5. Step 3: Select WASH Benefits Indicators & Methods
6. Step 4: Gather Project Data & Calculate WASH Benefits
7. Q&A

New Release:
WASH Multi-Benefit Accounting

- **Beyond #beneficiaries** to *socio-economic, environmental & institutional* **outcomes & impacts**
- ***Climate resilience, gender equality, financial ROI***
- **Alignment with** VWBA, NBS, Water Quality Benefit Accounting
- **Standardized** benefit indicators and accounting methods

www.wash4work.org

Table ES1: WASH Benefits

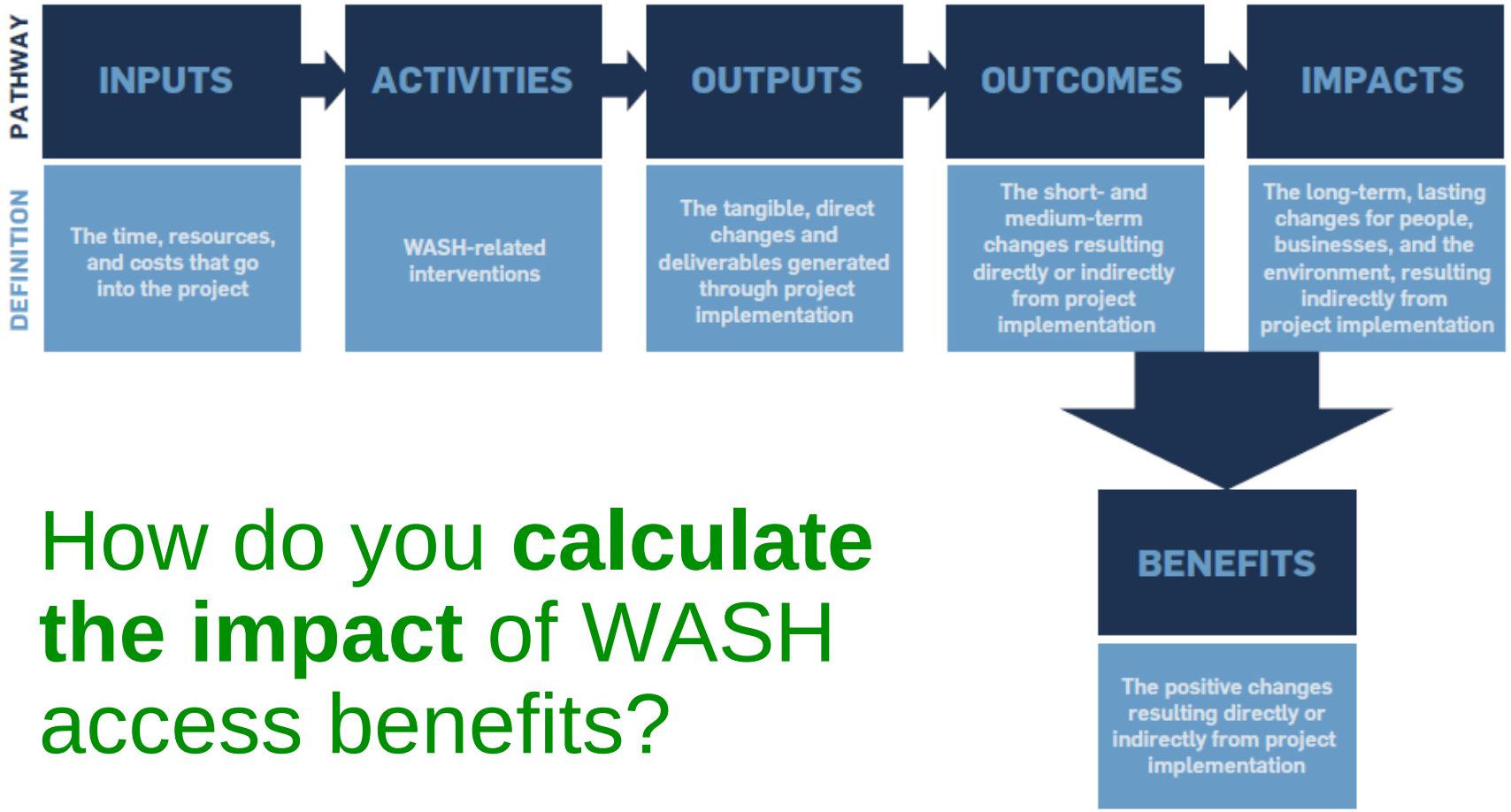
Socio-Economic
- Improved safety and resilience of drinking water, sanitation and hygiene access
- Improved health and well-being
- Improved economic and livelihood opportunities
- Improved educational opportunities
- Improved gender equality

Environmental
- Improved water quality
- Improved climate adaptation and mitigation

Institutional
- Improved financial return on investment
- Improved reputation and license to operate
- Improved employee satisfaction
- Improved water governance
- Improved property and land value
- Improved knowledge, awareness and understanding
- Improved community resilience

What are the **multiple benefits** of WASH access?

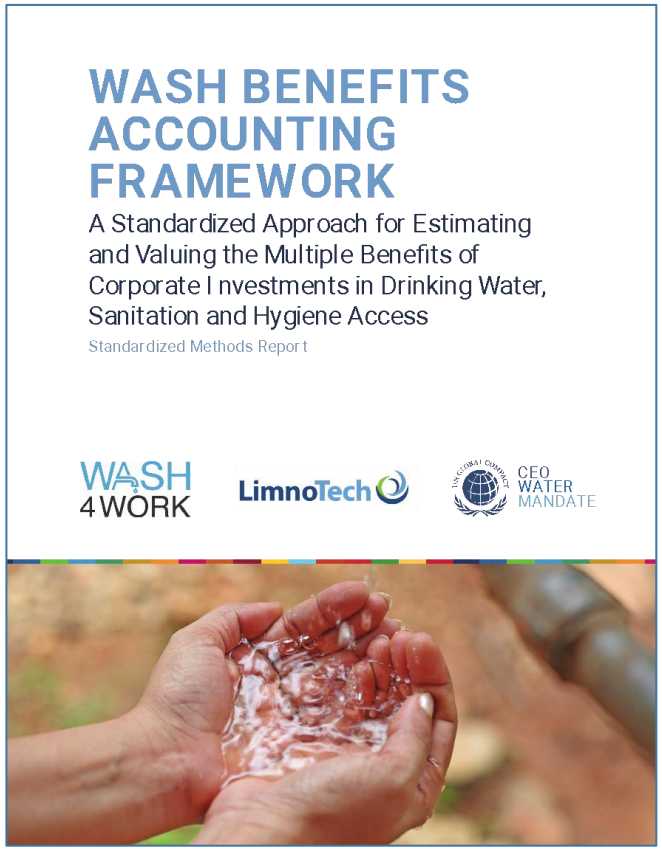
Figure ES1: WASH Impact Pathway



How do you **calculate the impact** of WASH access benefits?

Sources: Modified from WaterAid (2018), WBCSD (2019) and Reig et al. (2019).

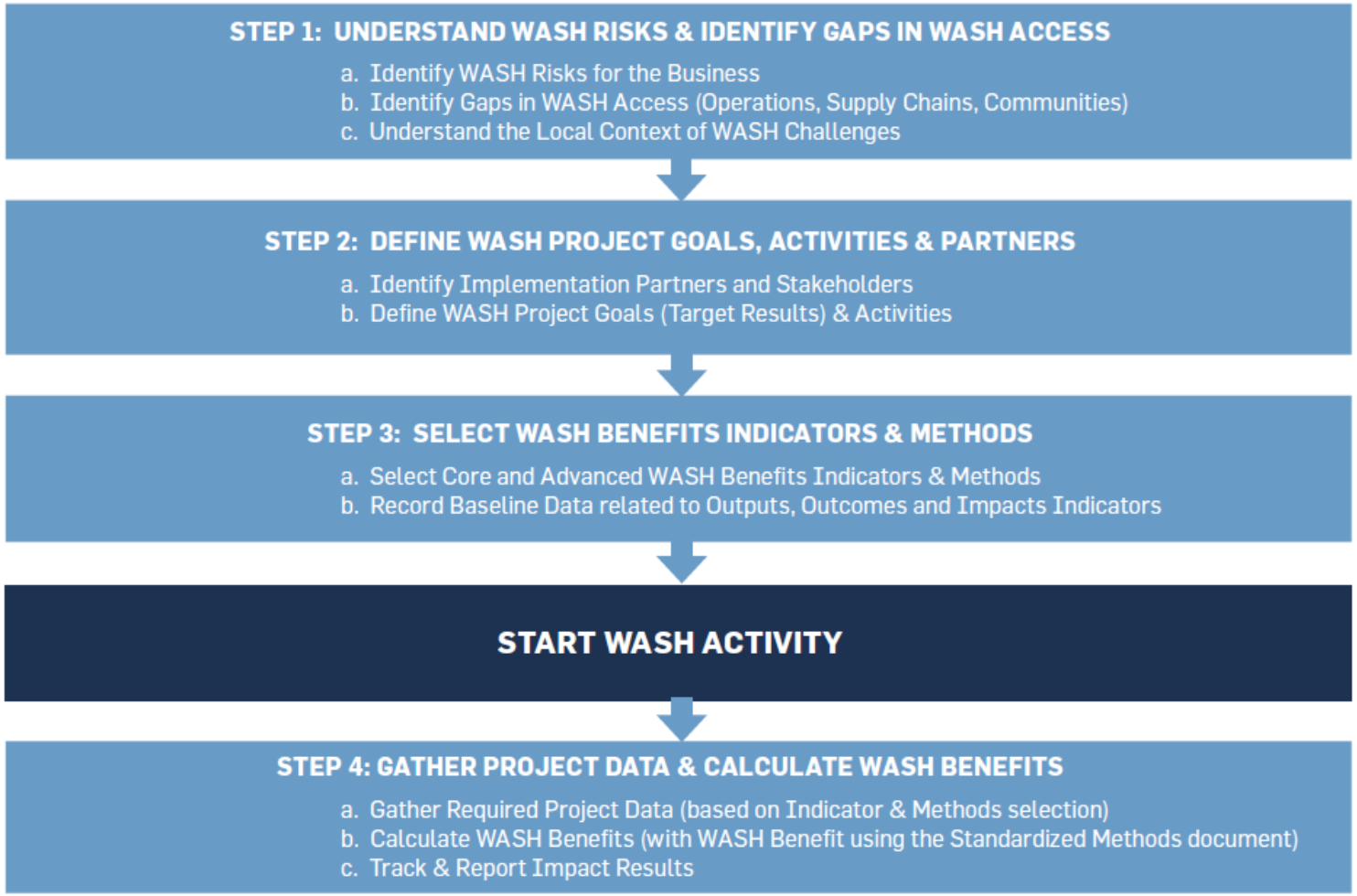
Standardized Methods Report



What's inside?

- **Indicators & Accounting Methods for calculating WASH benefits**
- **Guidance for Application of the Framework**
  - **Defining the scope of interest**
  - **Selecting indicators & methods**
  - **Comparing to a baseline**
  - **Disaggregating indicators**
  - **Data collection**
  - **Tracking & reporting**

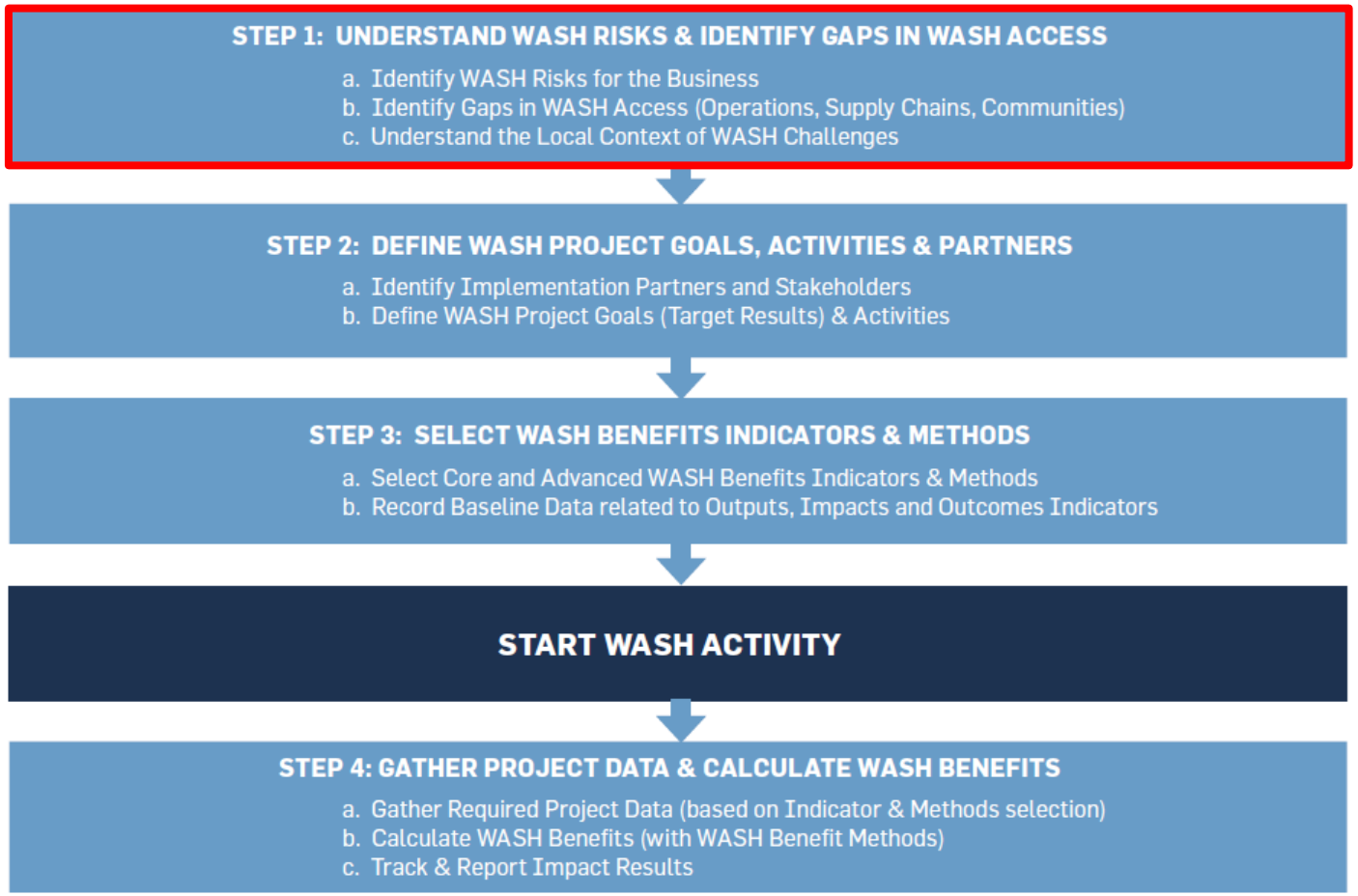
Figure ES2: Process for Application of WASH Benefits Accounting Within Corporate Water Stewardship Programs



How do you **get started**?

How do you **create a baseline** and **collect necessary data** to calculate WASH access benefits?

Four-Step Process for Application (Step 1)

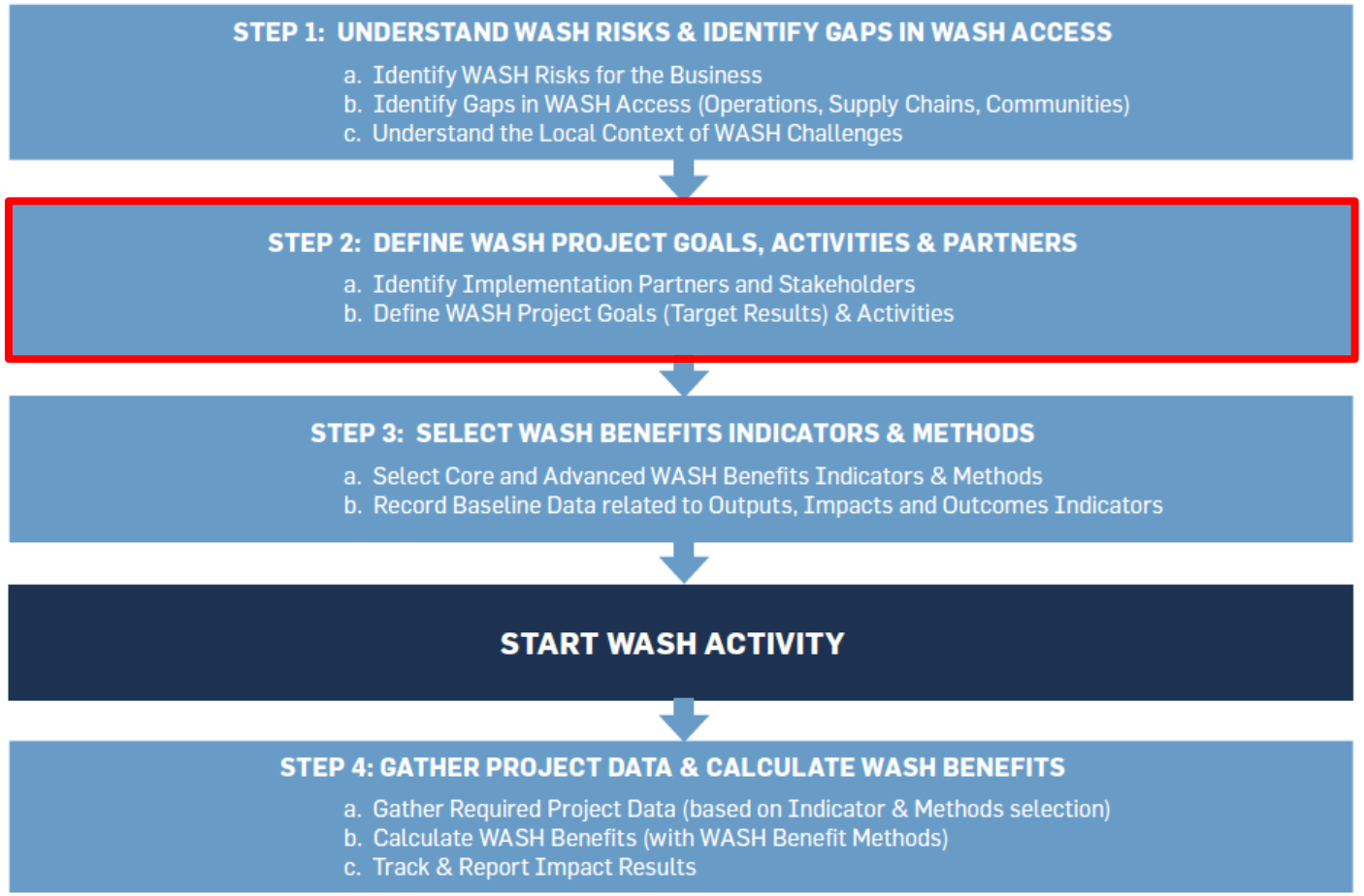


WASH risk assessment

WASH Pledge

Business Declaration on Climate Resilient WASH

Four-Step Process for Application (Step 2)



Define goals, scope, & objectives

Select WASH activities & partners

Table 1. Classification of WASH Activities

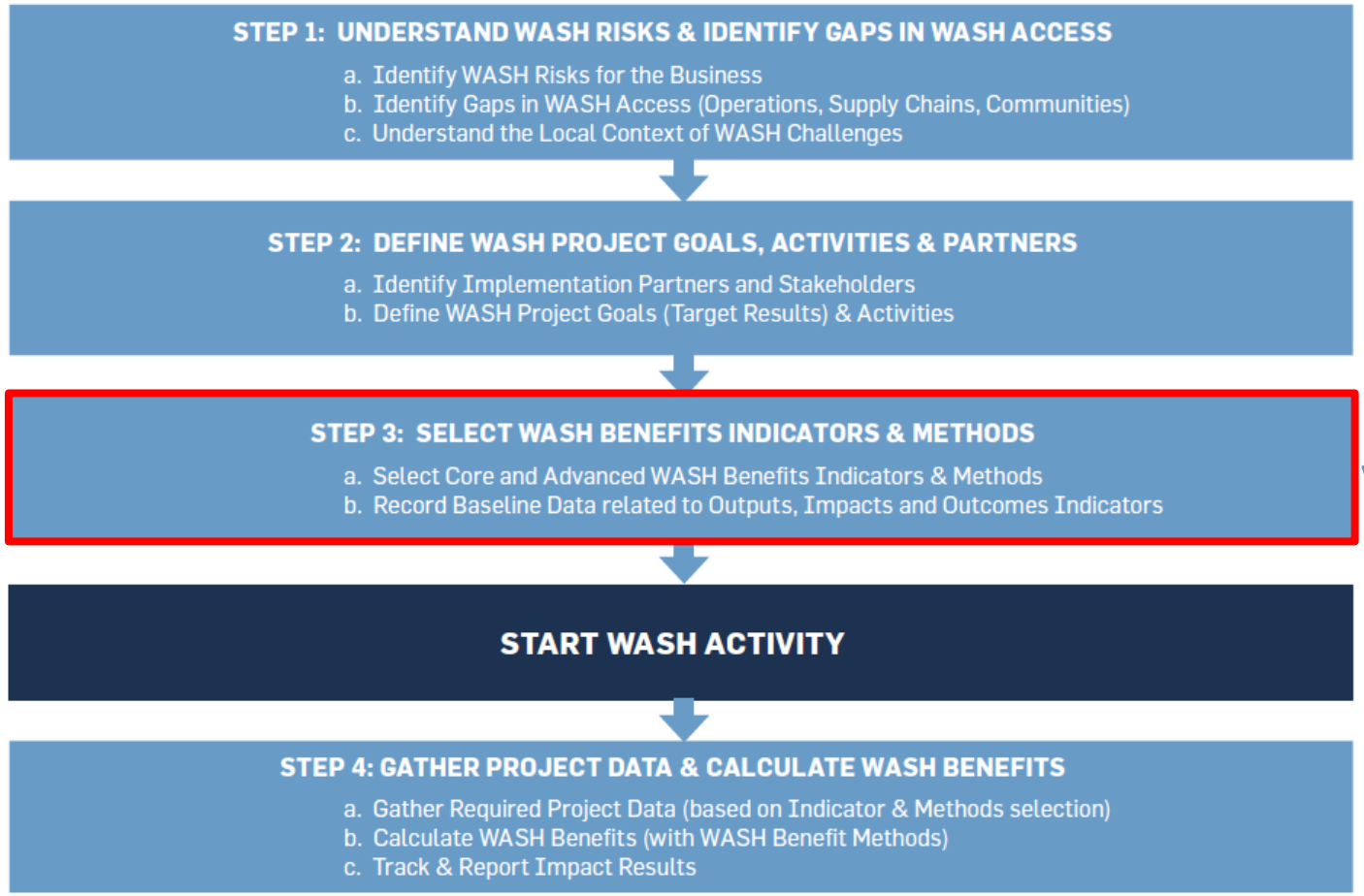
CATEGORY	ACTIVITY	DESCRIPTION
Water Access	Access to water source	Infrastructure to access and distribute a surface or groundwater source, including well construction and rehabilitation, household water connection and piped water systems
	Water collection and storage	Collection and storage of water for direct use, including rainwater harvesting and storage tanks
	Water treatment	Water treatment for direct use, including a water treatment facility, household filters and wetland treatment systems
	Efficiency and resilience improvements	Reduced water use through technology, processes or products, including leak detection and repair in distribution systems or buildings
	Water access training and education	Training or educating people in key topics, including accessing water, sustainable water use, cost recovery, maintenance and management, and water quality management
Sanitation Access	Access to sanitation	Infrastructure to provide access to improved sanitation facilities, including workplace, household or community toilets
	Wastewater and sewage treatment	Facilities and systems designed to remove pathogens and pollutants from wastewater discharge, including sewage treatment plants and fecal sludge treatment plants
	Efficiency and resilience improvements	Sanitation systems designed to be climate resilient, energy efficient, low-carbon and enable the reuse of treated wastewater, sewage and fecal sludge
	Sanitation training and education	Training or educating people in key topics, including maintenance and management of sanitation infrastructure, gender-specific considerations and ending open defecation
Hygiene Access	Access to handwashing and/or bathing facilities	Availability of a handwashing or bathing facility with soap and water
	Access to menstrual hygiene products, facilities and information	Ability to access adequate menstrual hygiene products and facilities, including use of menstrual materials, access to a private place to wash and change and participation in activities during menstruation
	Hygiene training and education	Training or educating people in key topics, including proper handwashing, food hygiene and menstrual hygiene
Institutional	Stakeholder engagement	Initiating and sustaining relationships and conversations with and between stakeholders related to WASH access
	Community dialogues	Facilitating discussions of social and cultural norms that may form barriers to WASH, particularly related to gender
	Water governance	Direct engagement in water governance, policy and public water management, including community water committees
	Capacity building	Data collection and analysis, financing, planning, training and other activities that increase knowledge and build capacity related to topics such as climate-resilient WASH, integrated water resources management, urban planning, non-revenue water reduction, gender equity, WASH systems operations and maintenance and the importance of ending open defecation
	Monitoring and evaluation	Monitoring and evaluation of activity performance (e.g., water quality testing) and progress towards national, regional and/or global WASH-related targets (e.g., climate resilience, water security)
	Communications and reporting	Communicating and reporting on WASH access and activities

What is a **WASH Activity**?

WASH BENEFITS ACCOUNTING FRAMEWORK

Susana Margolin,
Orbia

Four-Step Process for Application (Step 3)



Standardized Methods Report provides a **menu** of WASH **indicators** and detailed accounting **methods** to show a change from the without-project/baseline condition

- Core Indicators
- Advanced Indicators

What are standardized WASH access **output** indicators and calculation methods?

Number of direct beneficiaries	**Number of beneficiaries (A-2)**
Number of indirect beneficiaries	Number of indirect beneficiaries
Number of WASH-related jobs created	Number of WASH-related jobs created

Volume provided	**Measured volume provided (A-3)**
	Estimated volume provided (capacity) (A-3)
	Estimated volume provided (beneficiaries) (A-3)

Table 2. Recommended Outputs, Indicators, and Calculation Methods

BENEFIT CATEGORY	OUTPUT	INDICATOR	CALCULATION METHOD (APPENDIX)
Socio-economic	Improved drinking water, sanitation and hygiene access systems	**Number of new or restored water access systems**	**Number of systems (A-1)**
		Number of new or restored sanitation access systems	
		Number of new or restored hygiene access systems	
		Number of new or restored female-friendly sanitation/ hygiene systems	
	Increased number of beneficiaries	**Number of direct beneficiaries**	**Number of beneficiaries (A-2)**
		Number of indirect beneficiaries	Number of indirect beneficiaries
		Number of WASH-related jobs created	Number of WASH-related jobs created
	Improved provision of water	**Volume provided**	**Measured volume provided (A-3)**
			Estimated volume provided (capacity) (A-3)
			Estimated volume provided (beneficiaries) (A-3)
Environmental	Reduced pollution	**Volume treated**	**Measured volume treated (A-4)**
			Estimated volume treated (capacity) (A-4)
			Estimated volume treated (beneficiaries) (A-4)
		Reduced or avoided pollutant or nutrient load	Direct monitoring or modeling of reduced or avoided pollutant or nutrient load
	Reduced water demand	**Reduced withdrawal**	**Withdrawal (A-5)**
	Created resources	Amount or volume of beneficial resources created	Amount or volume of beneficial resources created
Institutional	Improved allocation of finances	**Amount of capital invested or mobilized for WASH**	**Capital invested or mobilized (A-6)**
		Amount of money saved	Dollars saved
	Improved opportunities	**Number of people trained or educated in WASH-related areas**	**Number of beneficiaries (A-2)**
		Number of people empowered with new leadership opportunities	
		Number of entrepreneurs or businesses supported	Number of entrepreneurs or businesses trained or supported
	Improved governance	Number of strategies or plans developed and/or implemented	Number of strategies or plans developed and/or implemented

Notes: Core indicators and methods are bolded while advanced indicators and methods are not. Core indicators and methods are described in detail in Appendix A while advanced indicators and methods are generally described in Appendix B

What are standardized WASH access **outcome / impact** indicators and calculation methods?

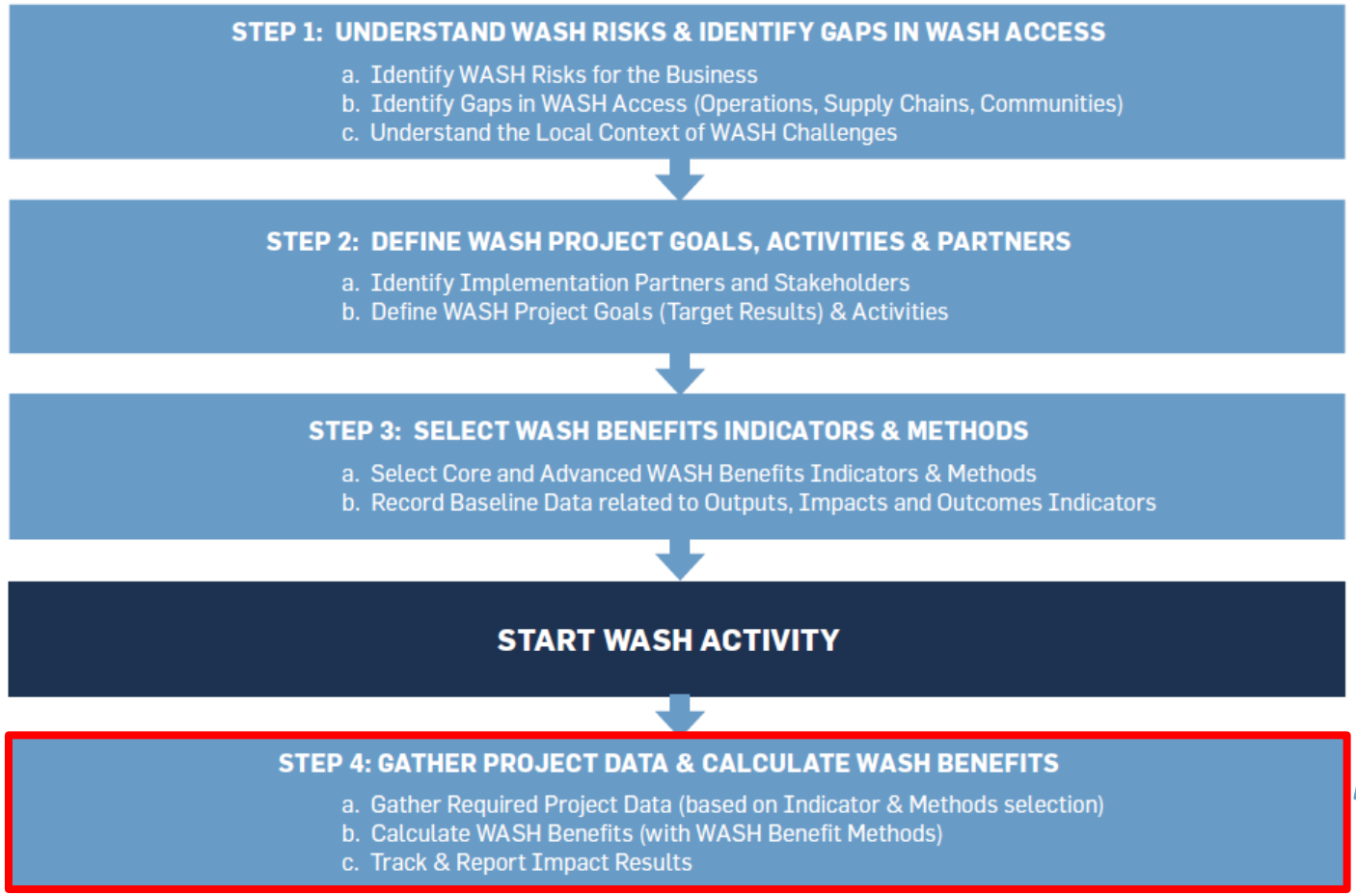
Reduced distance traveled to access WASH services	Survey of the average distance traveled daily to access WASH services
	Survey of the percentage of the population within a 30 minute round trip walk from the nearest water source (including queuing)
Reduced incidence of open defecation	Survey of the percentage of the population (or number of people) practicing open defecation
	Reported number of communities verified as open defecation free and the total number of people in those communities from census results

Increased school attendance	Reported average number of missed days per student per school year
	Reported number of children in the community not attending formal school
Increased role in household decision-making related to WASH for women	Survey of the average woman's perceived role in household decision-making related to WASH
Increased proportion of positions in WASH management and leadership held by women	**Management and leadership (A-10)**
Increased access to sanitation facilities when needed by women and girls	Survey of the percentage of women and girls that have had adequate access to sanitation facilities and products over the past year, when needed

Table 3. Recommended Outcomes/Impacts, Indicators and Calculation Methods

BENEFIT CATEGORY	OUTCOME/ IMPACT	INDICATOR [SDG TARGET, IF RELEVANT]	CALCULATION METHOD (APPENDIX)
	Improved safety and resilience of drinking water, sanitation and hygiene access	**Increased proportion of people with access to basic services (drinking water, sanitation or hygiene)**	**Service level (A-7)**
		Increased proportion of people with access to safely managed services (drinking water or sanitation) [6.1.1, 6.2.1]	
		Reduced time spent on water access activities	**Time savings (A-8)**
		Reduced distance traveled to access WASH services	Survey of the average distance traveled daily to access WASH services
			Survey of the percentage of the population within a 30 minute round trip walk from the nearest water source (including queuing)
		Reduced incidence of open defecation	Survey of the percentage of the population (or number of people) practicing open defecation
			Reported number of communities verified as open defecation free and the total number of people in those communities from census results
	Improved health and well-being	Increased proportion of people practicing good hygiene behavior at critical times	Survey of the percentage of the population practicing proper handwashing at critical times
		Reduced incidence of waterborne diseases	**Incidence of communicable diseases (A-9)**
		Reduced incidence of vector-borne diseases	
		Reduced healthcare spending	Reported average amount of annual healthcare spending per household
			Survey of the average annual healthcare costs per household
		Reduced prevalence and severity of water insecurity	Application of the Water Insecurity Experiences Scales survey methodology
		Increased mental well-being	Survey of the average perceived level of mental well-being, considering stress, anxiety, shame and embarrassment
		Increased safety while accessing WASH services	Survey of the average perceived level of safety while accessing WASH services
			Reported number of harassment and assault incidents annually while performing WASH activities
			Survey of the number of harassment or assault incidents experienced annually while performing WASH activities
		Increased sense of dignity related to WASH services	Survey of the average perceived sense of dignity related to WASH services
	Improved economic and livelihood opportunities	Improved affordability of WASH services	Survey of the average percentage of household annual income expended on WASH services
		Increased income	Reported average household income
			Survey of average time spent daily on income-generating activities
		Increased quality of life	Survey of the average perceived quality of life
		Increased social return on investment	Calculation of social return on investment
	Improved educational opportunities	Increased school attendance	Reported average number of missed days per student per school year
			Reported number of children in the community not attending formal school
	Improved gender equality	Increased role in household decision-making related to WASH for women	Survey of the average woman's perceived role in household decision-making related to WASH
		Increased proportion of positions in WASH management and leadership held by women	**Management and leadership (A-10)**
		Increased access to sanitation facilities when needed by women and girls	Survey of the percentage of women and girls that have had adequate access to sanitation facilities and products over the past year, when needed

Four-Step Process for Application (Step 4)



Calculation Methods included in appendices

- Relevant activity types
- Method description and equation
- Inputs and assumptions

Guidance on best practices for data collection and tracking / reporting of results

Beneficiaries Method

A-2. NUMBER OF BENEFICIARIES METHOD

Activities & Indicators

The Number of Beneficiaries method may be used to estimate the non-volumetric benefit associated with the following activities and indicators:

RELEVANT ACTIVITY CATEGORY	INDICATOR (TYPE)
Water Access; Sanitation Access; Hygiene Access; Institutional	Number of direct beneficiaries (output)
	Number of people trained or educated in WASH-related areas (output)
	Number of people empowered with new leadership opportunities (output)

This method is relevant to a wide range of WASH activities, including those that involve physical infrastructure or training and education.

Method Description

This method quantifies the number of beneficiaries that directly benefit from the project activities. Beneficiaries are commonly defined as the number of people, households, communities, schools or hospitals.

Number of beneficiaries = Number of beneficiaries that directly received a required level of benefit

The number of beneficiaries, which can be disaggregated many ways (see Disaggregating Indicators section), should be conservatively determined to prevent overcounting individuals that may not in reality benefit from the activities. There are multiple ways to determine the number of beneficiaries, including but not limited to:

- Direct counting of the number of people receiving access from project activities;
- Surveying the number of people reporting improvements in their life as a result of project activities;
- Estimating based on secondary, reported data (e.g., census data for a village that has received a new water source; school attendance records; health care facility patient numbers); or
- Estimating based on a combination of primary and secondary data (e.g., number of household loans and average household size; volume of water provided and average water use per person).

The level of benefit required to be considered as a direct beneficiary will vary based on the activity and purpose. In accordance with the WHO/UNICEF JMP definition of basic service, water should be accessible for beneficiaries within a 30-minute round-trip walk (including queuing), sanitation should be on premises and not shared with other households, and hygiene should be on premises (WHO & UNICEF, 2023). Additionally, if the number of beneficiaries is being used to estimate a volumetric water benefit (e.g., number of people with minimum reasonable access to at least 20 liters of water per person per day; see Appendix A-3, Approach 3) or is related to specific requirements (e.g., basic or safely managed service level), then those requirements should be considered when defining the level of benefit required. See Appendix A-7 for more details regarding the definition of basic and safely managed service.

The number of people trained or educated in WASH-related areas should be determined based on documentation from training events (e.g., sign-in sheet) or something similar. If there is a desire to increase rigor and ensure that all individuals are adequately trained/educated, this indicator could be applied only to those that received training and displayed improved knowledge or skills afterwards (e.g., pre- and post-training survey results, passed a test related to the training).

For the number of people empowered with new leadership opportunities, examples of leadership opportunities include involvement in water user associations or WASH committees. For each project, it is recommended to define empowerment (e.g., trained for opportunities vs. directly given opportunities) and disaggregate by gender (with a target of equal representation by men and women) and duration of the opportunity (e.g., temporary vs. long-term).

Inputs & Assumptions

EQUATION	VARIABLE	INPUT
Number of beneficiaries (direct; trained/ educated; empowered with leadership opportunities)	Beneficiaries	Number of people, households, communities, schools or hospitals
	Level of benefit required	Varies by activity and purpose

- Direct counting of the number of people receiving access from project activities;
- Surveying the number of people reporting improvements in their life as a result of project activities;
- Estimating based on secondary, reported data (e.g., census data for a village that has received a new water source; school attendance records; health care facility patient numbers); or
- Estimating based on a combination of primary and secondary data (e.g., number of household loans and average household size; volume of water provided and average water use per person).

Volume Provided Method

Approach 1. Measured Volume Provided

This approach quantifies the volume of water provided using measured/metered flows.

Volume provided = Average annual volume of water provided

Approach 2. Estimated Volume Provided (Capacity)

This approach estimates the volume of water provided using some measure of the system's design capacity. For systems that rely on pipes and pumps (e.g., groundwater wells, piped water systems, connected sanitation or hygiene systems), this may be estimated based on the pumping or delivery design capacity of the system and the average operating time at this capacity. If it is known that the system will be running at less than the design capacity, the average flow rate that is anticipated can be used instead of the design capacity.

Volume provided = Capacity of system * Average operating time at capacity

For systems that capture water (e.g., rainwater harvesting), the volume captured and provided can be estimated based on the minimum of the available supply and the storage potential. The storage potential can be estimated based on the capacity/potential of the system to capture and hold water and the average number of times it fills to capacity each year. The equations below originate from Appendix A-4 in Reig et al. (2019; VWBA version 2.0 in progress); see the report for additional details.

Volume captured and provided = Min [Available supply, Storage potential]

Available supply = Catchment area draining to the system * Runoff coefficient * Average annual rainfall

Storage potential = Design storage capacity * Average annual number of times filled to capacity

Approach 3. Estimated Volume Provided (Beneficiaries)

This approach estimates the volume of water provided using the number of direct beneficiaries receiving reasonable access to water and a conservative estimate of per-capita volume provided, as described below.

Volume provided = Number of direct beneficiaries * Per-capita volume (water provided per beneficiary per day) * Number of days of access per year

Refer to Appendix A-2 (Number of Beneficiaries method) and the requirements described above (purpose, quantity, quality, reliability, accessibility) when determining the number of direct beneficiaries. Because it can be difficult to determine who is using a particular water source, it is recommended that someone familiar with the project determine the number of direct beneficiaries for water supply projects.

The table below provides guidance on the minimum per-capita water volumes required for a variety of WASH-related uses. These volumes, which it should be noted will vary depending on a number of factors (e.g., climate, activity level, socio-economic level, social and cultural norms, gender), can be conservatively used to define the per-capita volume of water provided based on the activity and primary use of the water. For general water access activities (e.g., household water, well access), in accordance with Reig et al. (2019), it is recommended to use the WHO and UNICEF definition of reasonable access (WHO & UNICEF, 2000), which is commonly cited elsewhere as the minimum quantity required for basic needs (Reed & Reed, 2013; WHO, 2022). WHO & UNICEF define reasonable access as the availability of at least 20 liters per person per day from a source within one kilometer of the user's dwelling. For activities that provide water for more specific uses (e.g., handwashing stations, schools, toilets), the per-capita volume should be adjusted based on those uses and the guidance provided below. Practitioners should work with the local implementing partner to arrive at a reasonable per-capita estimate that is reflective of actual water use during the hours of operation.

USE	TYPE	MINIMUM VOLUME FOR SURVIVAL (LITERS PER PERSON PER DAY)	SOURCE
Reasonable/basic access	All	20	WHO & UNICEF, 2000; Reed & Reed, 2013; WHO, 2022
	All	7.5–15	Sphere Association, 2018
Intermediate access	All	50	WHO, 2022
Optimal access	All	100	WHO, 2022
Full realization of the human right to water	All	50–100	UN, 2010
Basic hygiene practices	Hygiene	2–6	Sphere Association, 2018
Basic cooking needs	Hygiene	3–6	Sphere Association, 2018
Handwashing (public)	Hygiene	1–2	Sphere Association, 2018
Schools (drinking and handwashing only)	Access/ Hygiene	3	Sphere Association, 2018
Drinking water	Access	2–5.3	WHO, 2022
Conventional flushing toilets	Sanitation	20–40	Sphere Association, 2018
Pour-flush toilets	Sanitation	3–5	Sphere Association, 2018
Toilet cleaning	Sanitation	2–8 (per toilet)	Sphere Association, 2018
Hospitals and other health centers (outpatient)	All	5	Sphere Association, 2018
Hospitals and other health centers (inpatient)	All	40–60	Sphere Association, 2018

Advanced Indicators

INDICATOR	RELEVANT ACTIVITY CATEGORIES	CALCULATION METHOD	ADDITIONAL GUIDANCE
Number of WASH-related jobs created	Water Access; Sanitation Access; Hygiene Access; Institutional	Number of WASH-related jobs created	Many WASH activities have the potential to create jobs and support local WASH enterprises. As examples, jobs may involve construction, operation or repair of infrastructure, or training and education. It is recommended to measure the jobs created directly due to the project activities. Caution should be taken to avoid counting jobs created due to outside causes independent of project activities. The number of jobs created could include short-term (e.g., people employed for short-term projects) or long-term (e.g., ongoing maintenance with some level of job security) employment. Each project should decide on the length of time an individual must remain employed for the position to be considered a job.
Reduced distance traveled to access WASH services	Water Access; Sanitation Access; Hygiene Access	Survey of the average distance traveled daily to access WASH services Survey of the percentage of the population within a 30-minute round-trip walk from the nearest water source (including queuing)	The need to travel to access WASH services can put individuals, specifically women and children, at risk of harassment and assault, prevent individuals from attending school or work, and result in increased incidence of disease. When calculating this indicator, it should first be determined who is considered a beneficiary of the project activities and whether this indicator is considering WASH services in general or focusing on specific services (e.g., drinking water). There are multiple approaches to conservatively determine the distance traveled per person per day, including, but not limited to, surveying beneficiaries of project activities or estimating the change in distance based on map data. The 30-minute round-trip walk guidance, which includes queuing, originates from the WHO/UNICEF JMP's definition of basic drinking water service (WHO & UNICEF, 2023).

Advanced Indicators

INDICATOR	RELEVANT ACTIVITY CATEGORIES	CALCULATION METHOD	ADDITIONAL GUIDANCE
Increased school attendance	Water Access; Sanitation Access; Hygiene Access	Reported average number of missed days per student per school year Reported number of children in the community not attending formal school	Improved WASH services allow children the ability to spend more time in school (e.g., fewer sick days, reduced responsibility for water collection), and improved services in schools create a comfortable environment for students to attend. Information from local schools and educational partners should be used to assess this indicator.
Increased access to sanitation facilities when needed by women and girls	Sanitation Access; Hygiene Access	Survey of the percentage of women and girls that have had adequate access to sanitation facilities and products over the past year, when needed	How "adequate access" is defined will vary by community/country and culture, so the survey should either define this for respondents or generally ask whether they feel that they have adequate access. According to UNICEF et al. (2018), at a minimum, female-friendly sanitation/hygiene systems need to be safe, private, accessible, affordable, well managed, cater for menstrual hygiene management, and meet the needs of caregivers.

Case Studies
Company Pilots of the Framework

"The Framework **was instrumental in efforts to refine our impact assessment approach**, ensuring transparency and accountability in sustainability initiatives."

"Applying the Framework **highlighted the importance of embedding it into program design from the start, aligning it with project aims, and acknowledging its ease of use."**

"Applying the Framework **helped us identify outputs, outcomes, and impacts that we were not considering during project scoping.** These insights will also help us to improve our water access initiatives more broadly."

WASH

BENEFITS

ACCOUNTING

FRAMEWORK

QUESTIONS?

2024 Engagement Opportunities

2024
LEADING PRACTICE

- Complete **WASH Risk Assessment – *including climate risk***
- **Apply WASH Benefits Accounting Framework *to impact reporting***
- **Engage in WASH Collective Action Opportunities**

www.wash4work.org I
secretariat@wash4work.org

Contact us to Engage!

secretariat@wash4work.org

wash4work.org

@WASH4Work

/in/wash4work/

WASH 4 WORK