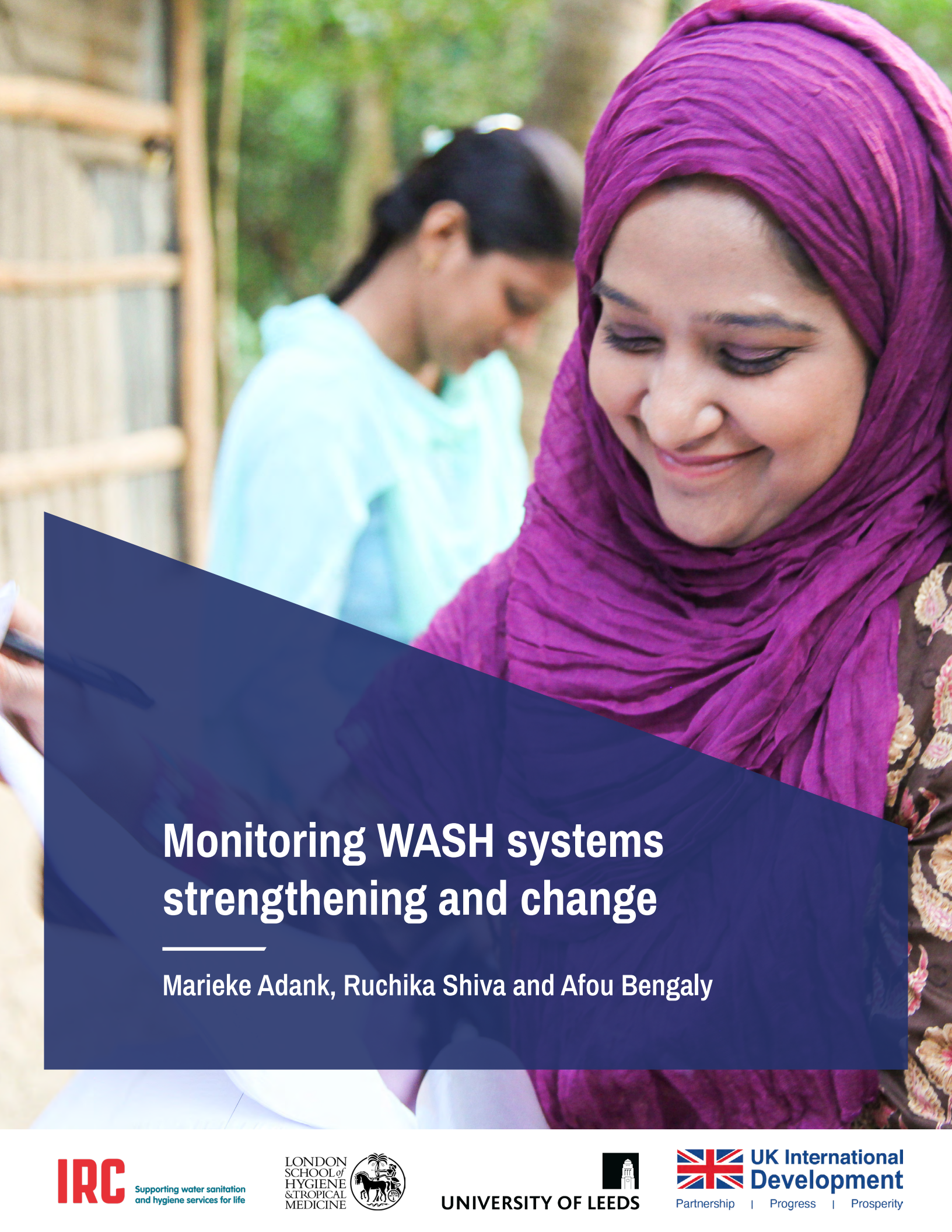




Monitoring WASH systems strengthening and change

Marieke Adank, Ruchika Shiva and Afou Bengaly



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About the project

The WASH Systems for Health (2023-2026) project supports governments in sub-Saharan Africa and South Asia to strengthen the systems needed to establish resilient and inclusive WASH services and end the preventable deaths of mothers, young children and infants. It aims to improve health and education outcomes. Global project partners include the London School of Hygiene and Tropical Medicine (LSHTM), the University of Leeds and IRC acting as the consortium lead. The project operates in Bangladesh and Nepal (led by WaterAid Bangladesh, including SNV); Malawi and Tanzania (led by SNV, including Water For People); and Nigeria and Sierra Leone (led by Self Help Africa, including Goal). The project is funded by UKAid/FCDO.

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Contents

1. INTRODUCTION	8
1.1 Background.....	8
1.2 Objectives and learning questions.....	8
1.3 Target audience.....	8
1.4 Methodology.....	8
1.5 Outline of this paper	9
2. MONITORING CONCEPTS AND TRENDS	10
2.1 Defining monitoring.....	10
2.2 Trends in monitoring approaches	11
2.3 The WASH results chain	13
2.4 Trends in monitoring WASH projects	14
3. WASH SYSTEMS STRENGTHENING ALONG THE RESULTS CHAIN: THE WASH SYSTEMS FOR HEALTH CASE	18
3.1 Development of the WASH Systems for Health results chains.....	19
3.2 Quarterly reporting along the results chain by the implementing partners.....	19
3.3 The WASH Systems Index tool.....	20
3.4 Outcome harvesting	27
3.5 Tracking progress on outcomes in terms of better services for people.....	28
3.6 From project to country-led monitoring along the results chain.....	31
3.7 Lessons learnt and reflections	33
4. CONCLUSION AND RECOMMENDATIONS FOR THE WAY FORWARD	34
5. REFERENCES	36
6. ANNEXES.....	38
6.1 Annex 1.....	38
6.2 Annex 2.....	51

List of figures

Figure 1: WASH system and its building blocks 10

Figure 2: Results chain12

Figure 3: WASH results chain..... 14

Figure 4: WASH system building blocks.....16

Figure 5: A2A Indicator domain families.....17

Figure 6: An overview of the monitoring tools applied along the results chain..... 18

Figure 7: WASH Systems Index tool.....21

Figure 8: Monitoring tools along the results chain. 32

List of tables

Table 1: Overview of monitoring approaches 13

Table 2: Example of annual output milestones in the WASH Systems for Health Nepal results framework 19

Table 3: WASH Systems Index baseline score, national level.....23

Table 4: WASH Systems Index milestone scores24

Table 5: Output milestones Malawi25

Table 6: 2025 WASH Systems Index score results, Malawi26

Table 7: WASH System Index tool milestones and actual 2025 scores26

Table 8: 2022 JMP data and 2028 targets28

Table 9: Service level data from country-led monitoring systems29



Image caption: Presenting WASH Index Tool results per district using infographics to the Permanent Secretary of the Ministry of Water, Tanzania. Image credit: SNV Tanzania.

Executive summary

Water, sanitation and hygiene (WASH) projects have shifted over the last two decades from building infrastructure towards strengthening the wider systems, the social, technical, institutional, environmental and financial factors and relationships that sustain service delivery. This shift demands a parallel shift in how projects are monitored. This learning paper, developed under the FCDO-funded WASH Systems for Health programme (2023–2026), examines how monitoring approaches have evolved in the sector and draws on WASH Systems for Health's real-world experience across six countries (Bangladesh, Nepal, Nigeria, Sierra Leone, Malawi and Tanzania) to offer practical guidance on monitoring systems strengthening and change.

It addresses three learning questions: 1) What trends can be observed in how WASH projects are monitored; 2) How can systems strengthening and systems interventions be monitored; and 3) What is the way forward for systems monitoring? The paper is aimed at development partners, NGOs and national and local governments involved in financing, implementing or overseeing systems strengthening work.

Evolving approaches to monitoring

Monitoring in the development sector has progressed through four broad, complementary approaches: log frames (1970s), which provide linear cause-effect models well-suited to accountability reporting but poorly suited to complexity; theories of change (1990s), which capture complex causal pathways and contextual assumptions; results frameworks (mid-1990s), which articulate clear chains of inputs, activities, outputs, outcomes and impact; and outcome harvesting (2000s), which documents intended and unintended changes in actor behaviour without requiring proof of attribution. Rather than replacing one another, these approaches are typically combined, as was the case in WASH Systems for Health.

Within WASH specifically, monitoring has shifted from counting infrastructure outputs towards tracking service-level outcomes (driven by instruments such as sustainability checks, post-implementation monitoring and payment-by-results financing) and, more recently, to assessing the strength of the systems underpinning sustainable services. A persistent tension remains between well-resourced but externally driven project monitoring and chronically under-resourced country-led monitoring systems that are nonetheless essential to sustainable sector governance.

The WASH Systems for Health approach: Monitoring along the results chain

WASH Systems for Health combined a log frame for donor accountability with country-level results chains co-developed with government and sector stakeholders. It included quarterly narrative reporting along the results chain, output tracking, outcome harvesting and a dedicated WASH Systems Index tool for assessing and monitoring systems strength as an intermediate project outcome. The WSI tool, based on IRC's building blocks framework and other tools for assessing and monitoring systems change, rates ten systems building blocks (such as finance, institutions, planning, monitoring and regulation) through participatory, multi-stakeholder assessments. It produces both an overall systems-strength score per building block, providing an indication of the systems strength as an intermediate project outcome. It also produces a score on benchmarks directly linked to project outputs and generates cross-cutting indices on gender and social inclusion, capacity and climate resilience.

The monitoring framework, intended to inform project decision-making and accountability, was applied over a two-year period, before the premature closure of the project in June 2026. Overall, the framework proved useful for informing project adaptation and reporting for upwards accountability. The quarterly reporting sparked strategic recommendations for adaptation of the project in the different countries. The WASH Systems Index baseline (2024) provided insight into the strengths and weaknesses of the systems at national and local level, showing generally weak regulation, accountability and monitoring building blocks across countries and lower sanitation than water scores. A second round (2025/26) showed substantial progress in most countries, frequently exceeding the milestones set. This informed reporting for accountability, as well as adaptation of the project (e.g. the decision to increase emphasis on strengthening regulatory processes in

Tanzania). Tracking of outcomes, in terms of changes in behaviour of targeted actors and in terms of improved services for people, had started, but had not yet matured by the time of the closure of the project.

The intention was to institutionalise elements of the WASH Systems for Health monitoring framework into sectoral processes, especially the regular assessment of WASH systems strength using the WASH Systems Index or a similar tool, the reflection of progress over the entire results chain and the use of monitoring data for informing sector reflection, decision-making and accountability. The participatory nature of the WSI assessments contributed to strong stakeholder ownership of the results. However, these processes are time and resource heavy and therefore need to be applied sensibly and only when they can add value.

Recommendations for the way forward

Systems strengthening projects should build clear results frameworks grounded in a theory of change and apply complementary tools, for input/output tracking, outcome harvesting and systems-strength assessment across the full results chain, with data analysed regularly to inform decisions and accountability. Where feasible, monitoring indicators should align with the emerging Align to Accelerate harmonised indicator set, without restricting projects solely to those indicators.

As foreign aid for WASH declines and Global South capacity grows, governments are expected to increasingly lead systems strengthening directly. Development partners therefore have a responsibility to ensure their monitoring approaches strengthen, rather than bypass, national and local monitoring systems and capacities, embedding tools like the WASH Systems Index into existing sectoral processes such as Joint Sector Reviews so that the gains from project-level monitoring outlive the projects themselves.

1. Introduction

This learning paper focuses on monitoring of systems strengthening interventions in the water and sanitation sector. It sets out concepts and trends and provides insights from real-world experiences on how systems interventions can and should be monitored and how this drives decision-making and accountability.

1.1 Background

The last two decades have seen a shift in focus of Water, Sanitation and Hygiene (WASH) projects away from infrastructure development towards more systemic approaches. There is increasing recognition that strong WASH systems are needed to ensure sustainable service delivery to all. Such systems are defined as the social, technical, institutional, environmental and financial factors, actors and interrelationships that influence WASH service delivery in a given context (Huston & Moriarty, 2018). This requires systems strengthening or change, depending on sectoral developments and contexts. Systems strengthening involves deliberate efforts to improve the performance of the WASH system, while system change encompasses fundamentally altering the way the entire system is set-up (Hutchings, Smits and Adank, 2026).

Increasingly, project interventions aim to contribute to systems strengthening and change by focusing on shifting institutional roles, behaviours and coordination mechanisms across the WASH system. This shift implies a need to change how these projects and programmes are monitored.

Over the last decade, different organisations and initiatives have developed and tested tools and approaches for assessing and monitoring the strength of WASH systems. There is an emerging consensus on how to do this. However, there is less emphasis on and less insight into, how to define and monitor the effectiveness of systems interventions undertaken within project frameworks. This is partly because there is a wide range of possible systems interventions.

1.2 Objectives and learning questions

This learning paper provides insight into how projects focused on systems strengthening can be monitored. It presents an overview of how monitoring has evolved in the water and sanitation sector and provides guidance on how systems strengthening initiatives can be monitored, based on real-world examples and experiences. It addresses the following learning questions:

- What trends can be observed in how projects in the water and sanitation sector are monitored?
- How can systems strengthening and systems interventions be monitored?
- What is the way forward for systems monitoring?

1.3 Target audience

This paper is primarily targeted at implementers and financiers of systems interventions, including development partners and NGOs, supporting governments in ensuring sustainable water and sanitation services in the Global South. The paper also targets national and local governments, as they are increasingly responsible for and in charge of systems strengthening interventions. It intends to provide these target groups with guidance on how systems interventions can be monitored and how this can lead to better decision-making and accountability. Furthermore, the paper intends to stimulate and feed the global discussion on how to monitor systems interventions.

1.4 Methodology

This paper has been developed as part of the WASH Systems for Health programme. The WASH Systems for Health project (2023-2026) was an FCDO-funded initiative involving three consortia, each with two implementing partners (IPs), working to strengthen WASH systems across six countries: Bangladesh (WaterAid Bangladesh) and Nepal (SNV Nepal) in South Asia, Nigeria (Self Help Africa) and Sierra Leone (Goal Sierra Leone) in West Africa and Malawi (Water For People Malawi) and Tanzania (SNV Tanzania) in East Africa. In each country, systems interventions focused on both national and local levels. Two to six local target areas (commonly districts) were selected for systems intervention piloting at local level, to inform national scaling and policy and practice. Considering Nigeria's size and administrative set-up, it was decided to focus national inter-

ventions at State level in two states: Cross River and Kano. The implementing partners were supported in their strategic monitoring and research and learning by the WASH Systems for Health Facility, consisting of IRC, Leeds University and London School for Hygiene and Tropical Medicine. The research and learning agenda, developed by the WASH Systems for Health Facility on the basis of literature reviews (D'Mello-Guyett et al., 2025; Sylvester et al., 2026), included WASH systems monitoring as one of the four key learning themes for the programme as a whole (Hutchings et al., 2024). The project intervention period in the six countries was originally intended to span five years (2024-2028). However, the project prematurely closed in the first half of 2026 due to FCDO's funding cuts.

This paper is based on a literature review combined with documented experiences of monitoring WASH systems interventions under the WASH Systems for Health project. It presents monitoring frameworks, tools and findings, as developed by the Facility and IPs and describes how these were developed and used to monitor systems strengthening. It builds on experiences with systems monitoring as presented and discussed at the hybrid WASH Systems for Health Learning Forum event in Nigeria in November 2025 and at the IWA Conference in Bangkok in December 2025.

1.5 Outline of this paper

Following an overview of monitoring concepts and trends in Section 2, the paper focuses on the monitoring approach of the WASH Systems for Health project as an illustrative example of how a systems intervention project can be monitored (Section 3). Based on the insights from Sections 2 and 3, Section 4 presents the answers to the learning questions mentioned above as part of the conclusions and recommendations of this learning paper.

2. Monitoring concepts and trends

This section gives an overview of how monitoring can be defined (Section 2.1). It presents general monitoring approaches and how these have evolved over time, including log frames, theories of change, results frameworks and outcome harvesting (Section 2.2). It then presents a conceptualisation of the results chain for WASH projects and WASH service provision (Section 2.3). This is followed by an overview of monitoring trends in the water and sanitation sector (Section 2.4).

2.1 Defining monitoring

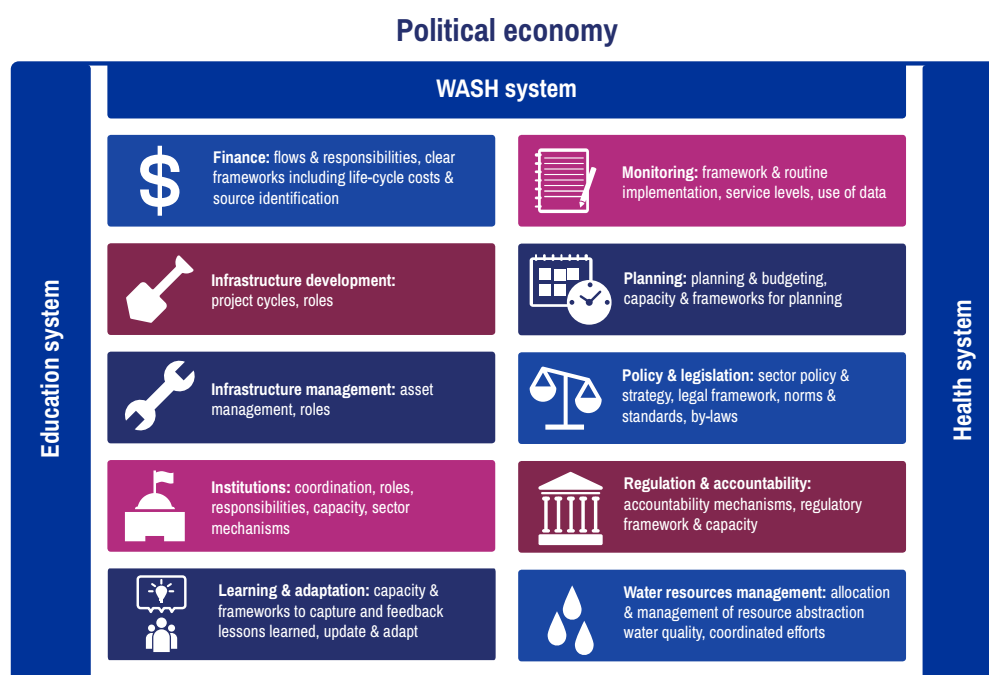
There are various definitions of **monitoring** (e.g. Shordt, 2000; Kusek and Rist, 2004; Kuster and Batjes, 2017; OECD, 2023). These definitions commonly emphasise that monitoring is not a one-off activity, but an ongoing and continuous process. These definitions also emphasise the need for monitoring progress against set objectives, or the ideal or expected situation.

Development partners of all shapes and sizes, from small charities to large international non-governmental organisations (NGOs), bilateral donors and the major lending banks, support WASH interventions through projects and programmes that generally include a monitoring component

(Lockwood, 2015). It provides insight into progress, which can inform decisions related to planning and adaptation and can ensure accountability of the implementor towards financiers, partners and beneficiaries. Lockwood (2015) defined **project monitoring** as having some or all of the following characteristics:

- Monitoring is limited to the defined lifespan of a project or programme intervention and is generally short term (usually not more than five years maximum).
- Monitoring falls outside, or is de-coupled from, government-led or sanctioned data collection, performance management systems and policy priorities. This tends to include monitoring of externally funded projects that are executed outside a Sector-Wide Approach (SWAp).
- Monitoring is mostly driven by a need for upwards accountability and the primary (and in some cases sole) purpose is to inform external funders about progress and performance (often with governments and beneficiaries remaining unaware of the data).
- Monitoring may be driven by a desire for (international) visibility and profiling.

Figure 1: WASH system and its building blocks



Monitoring is also applied by governments, possibly together with their partners, in ongoing water and sanitation service provision for a certain area or country, which also informs decision-making and accountability. Danert (2015) refers to such monitoring systems as **country-led monitoring** systems.

Performance monitoring is part of performance management, or results-based management, defined by Binnendijk (2001) as *"a broad management strategy aimed at achieving important changes in the way government agencies operate, with improving performance (achieving better results) as the central orientation"*.

From a systems perspective, monitoring is one of the key components, or **'building blocks'** of water supply and sanitation systems, as shown in Figure 1. The WASH system sits within the wider political economy systems and context, with links to other systems, such as the education and health systems. The monitoring building block has strong links to other building blocks, including planning, learning and adaptation, infrastructure development and management, regulation etc. (Huston and Moriarty, 2018).

2.2 Trends in monitoring approaches

The idea of monitoring is not new. The word 'monitoring' comes from the Latin word "monere", meaning to warn, remind, or advise. However, the verb "to monitor" only appeared in the English language around the 1920s, with growing interest in monitoring emerging in the 1960s, alongside the introduction of performance monitoring, driven by rational planning systems in the private sector (Carter, 1998). The public sector adopted these practices in the 1970s and 1980s to improve bureaucratic efficiency and effectiveness, at a time of economic decline and neo-liberal politics resurgence (McGinnes and Elandy, 2012). Advocates of this New Public Management (NPM) attributed high priority to performance management and measurement (Thiel and Leeuw, 2002), believing that performance monitoring would enable government to control costs, increase accountability and improve services (Hailey and Sorgenfrei, 2004).

Public sector reforms in the global North in the 1990s, responding to economic, social and political pressures, commonly involved the introduction of performance management and monitoring (Binnendijk, 2001). The UN, OECD and World Bank / IMF actively promoted the adoption of NPM, with its increased emphasis on performance management and monitoring in low- and middle-income countries (Ohemeng, 2005).

Logical framework approaches have been a key element of project monitoring in the development sector since the 1970s. They were developed and tested in the 1970s by USAID, as a response to a 1969 assessment of project evaluation systems in USAID that found that 1) project planning was often too vague, 2) management responsibilities were not clear and 3) there was generally an absence of clear targets. The development of log frames built on military and NASA experiences with such frameworks. The Canadian International Development Agency took up log frame approaches in the mid-1970s (PCI, 1979), followed by European development agencies in the 1980s (Hailey and Sorgenfrei, 2004b). DFID (now FCDO), for example, required all of its projects to have log frames in place (Freer and Lemire, 2019). At the start of the 2000s, log frames had become a key element in defining relationships between NGOs and donors and were widely used as part of result-based management, including in WASH projects. However, log frames have not been widely adopted outside of the development community (Hailey and Sorgenfrei, 2004b).

Log frames are primarily intended to guide planning, but can also guide monitoring and evaluation. They consist of a matrix with 1) a hierarchy of objectives, 2) objective indicators, 3) targets and information sources, 4) assumptions and predictions. Log frames present linear models, assuming causal relationships between inputs, activities, outputs and objectives. They tend to be unflexible and do not deal well with complexity. Also, they do not provide insight into how project objectives are reached. In WASH projects, log frames are mainly used in the planning stage and to set indicators against which to report to donors.

Theory of change approaches were introduced in the 1990s in the context of community-change initiatives, as a less linear approach that allows capturing complexities and interlinkages of interventions. Theories of change involve mapping of the logical sequence from inputs and activities towards the desired change, strengthened by critical thinking about the contextual conditions that influence the programme, the motivations and contributions of stakeholders and other actors and the different interpretations (assumptions) about how and why that sequence of change might come about (Stern et al., 2012). Ideally, theories of change encompass the following elements: 1) Context for the initiative, including the political economy in which the initiative is set; 2) Long-term change that the initiative seeks to support and for whose ultimate benefit; 3) Process/sequence of change that is anticipated in order to create the conditions for the desired long-term outcome; 4)

Assumptions about how these changes might happen, as a check on whether the activities and outputs are appropriate for influencing change in the desired direction in this context; 5) A diagram and narrative summary displaying these elements. The theory of change thus spells out the reasons why the project, programme, or strategy will lead to the outputs; why those outputs are likely to lead to the immediate or intermediate outcomes; and how those outcomes are (at least hypothetically) linked to longer-term outcomes or impact.

Application of theories of change (ToCs) has been observed in the WASH sector, the development sector in general, but also beyond. This approach is mainly applied to design complex programmes and projects. Monitoring of progress against the ToC can inform adaptation of a programme or project.

However, theories of change can be vague or too generic, can involve disconnects between information needs for the ToC and project/programme staff and must be revisited regularly (Freer and Lemire, 2019).

In the mid-1990s, **results framework** approaches were introduced by USAID, encouraging project staff to highlight causal linkages across different levels and focus on concrete results to be achieved, rather than merely activities to be undertaken, requiring continuous monitoring of programme activities for midstream corrections, as well as comprehensively assessing change over time on key outcome variables. (Toffolon-Weiss, Bertrand and Terrell, 1999). Results frameworks did not replace theories of change, but were intended to complement them. The development of a good results framework requires clarity with respect to the theory of change.

A results framework is an explicit articulation (graphic display, matrix, or summary) of the result chain related to a particular intervention, such as a project, programme, policy or strategy. The results chain includes the longer-term objectives

(outcomes and impact) and the intermediate outcomes and outputs related to inputs and activities that precede and lead to, those desired longer-term objectives (Roberts and Khattri, 2012). Figure 2 presents a general overview of a results chain.

A major limitation of the results-framework approach is that it attempts to synthesise very complex processes into quantifiable indicators that may or may not fully capture achievements and progress (Toffolon-Weiss, Bertrand and Terrell, 1999).

In the WASH sector, results frameworks that spell out expected inputs, activities, outputs, outcomes and impact and how progress along this results chain can be monitored over time, often accompany theories of change. Monitoring on results chains informs reporting for accountability, as well as decision-making for planning and adaptation.

The early 2000s saw the introduction of **outcome harvesting**, which focuses on documentation of expected and unexpected outcomes, in terms of changes in behaviour of the actors that a project, programme or strategy tries to influence. This monitoring and evaluation method in the development sector was spearheaded by Ricardo Wilson-Grau and colleagues. It has been used to monitor and evaluate the achievements of networks, NGOs, research centres, think tanks and community-based organisations around the world (Wilson-Grau and Britt, 2012). It is especially useful in complex situations where it is difficult or impossible to define concretely what specific actions will be taken over a multi-year period. Outcome harvesting can, however, be time and resource intensive and does not measure attribution or establish causal prove. Contribution claims rely on plausibility and triangulation rather than rigorous causal inference.

Figure 2: Results chain



Table 1: Overview of monitoring approaches

	Main application	Limitations
Log frame	Design of project from a linear perspective; Identification of M&E indicators; Monitoring for informing reporting for accountability.	Linear, not dealing well with complexity; Inflexible; Does not provide insight into how a project achieves results.
Theory of change	Design of project or programme from a complexity perspective; Monitoring for informing project adaptation.	Risk of being vague or too generic; Possible disconnect between information needs of ToC and those of project staff; Needs to be revisited regularly.
Results framework	Monitoring of projects and programmes along the results chain over time, for accountability and decision-making for adaptation.	May not fully capture achievements and progress.
Outcome harvesting	Monitoring of project and programme progress and achievements, for informing decision-making for adaptation and accountability.	Time and resource intensive.

As shown above, the different monitoring approaches have been developed over time, each addressing the limitations of earlier approaches. It is not uncommon for a project or programme to use all four monitoring approaches in a complementary way. The WASH Systems for Health project, for example, developed and used a log frame for reporting to its financier, FCDO, on an annual basis. It also developed theories of change and a results framework for each of its country programmes, with monitoring on these informing strategic decision-making, adaptation and accountability towards FCDO. Before its closure, it had just started outcome harvesting as an additional approach for capturing expected and unexpected outcomes related to, but also beyond, the results framework.

2.3 The WASH results chain

Although both country-led monitoring systems and 'project' monitoring are about delivering better services, there is an obvious tension between the two (Lockwood, 2015), with project monitoring systems often well-resourced, focused on reporting for accountability and country-led monitoring often poorly-resourced, focused on informing regulation and decision-making processes. The 2005 Paris Declaration on Aid Effectiveness and subsequent agreements, advocated for greater alignment of project and programme interventions by development partners with government priorities and country systems, including monitoring frameworks.

This section brings together a results chain for monitoring WASH projects (through project monitoring systems and ap-

proaches) and WASH service provision (through country-led monitoring systems).

As introduced in section 2.2, results chains consist of inputs, activities, outputs, outcomes and impacts of policies, strategies or projects. Figure 3 presents a results chain that combines WASH projects and WASH service provision. This results chain includes the inputs, activities and outputs planned in WASH projects and programmes. This is essentially what the project will do and hence within the direct **sphere of control** of projects and programmes. A WASH systems strengthening project may, for example, involve a number of training sessions targeting specific actors. The delivery of the number of trainings and the number of people trained is within the project's sphere of control. A project focused on asset development may include the construction of a reservoir. This is also within the direct sphere of influence of the project.

An intermediate outcome of projects and programmes focused on systems strengthening is a change in the strength of WASH systems and behaviours. Systems intervention projects cannot fully control whether project activities and outputs result in strengthened systems, as there are many other factors that can enable or hamper this, but these intermediate outcomes are within the **sphere of influence** of such projects.

Projects and programmes focused on infrastructural development and systems strengthening are expected to result in assets and systems with strong capacities, processes and mechanisms which serve as input into service provision activ-

ities. Whether or not these assets and capacities are applied to their full potential is not within the direct sphere of control of the project, but rather within its **sphere of influence**.

Projects and programmes focused on systems strengthening are expected to result in stronger systems. These systems include strong service provision inputs (in terms of human and financial resources), activities (in terms of service provision activities) and outputs (in terms of provided water and sanitation services). Whether or not these are actually strengthened and in place is beyond the direct sphere of control of systems strengthening projects and thus rather within their sphere of influence. The intended outcome of systems intervention projects, infrastructure projects, capacity building and service provision processes, is that people access and use reliable, safe, accessible, appropriate, affordable, sustainable and resilient WASH services. This is directly within the sphere of interest and, at least to some degree, within their sphere of influence. The ultimate aim is that this will lead to improved health and wealth of people. This is, however, outside of the direct sphere of control and influence of projects, programmes and service provision processes, but is within their **sphere of interest**.

Each of the components of the WASH results chain requires monitoring. The section that follows discusses trends in WASH monitoring.

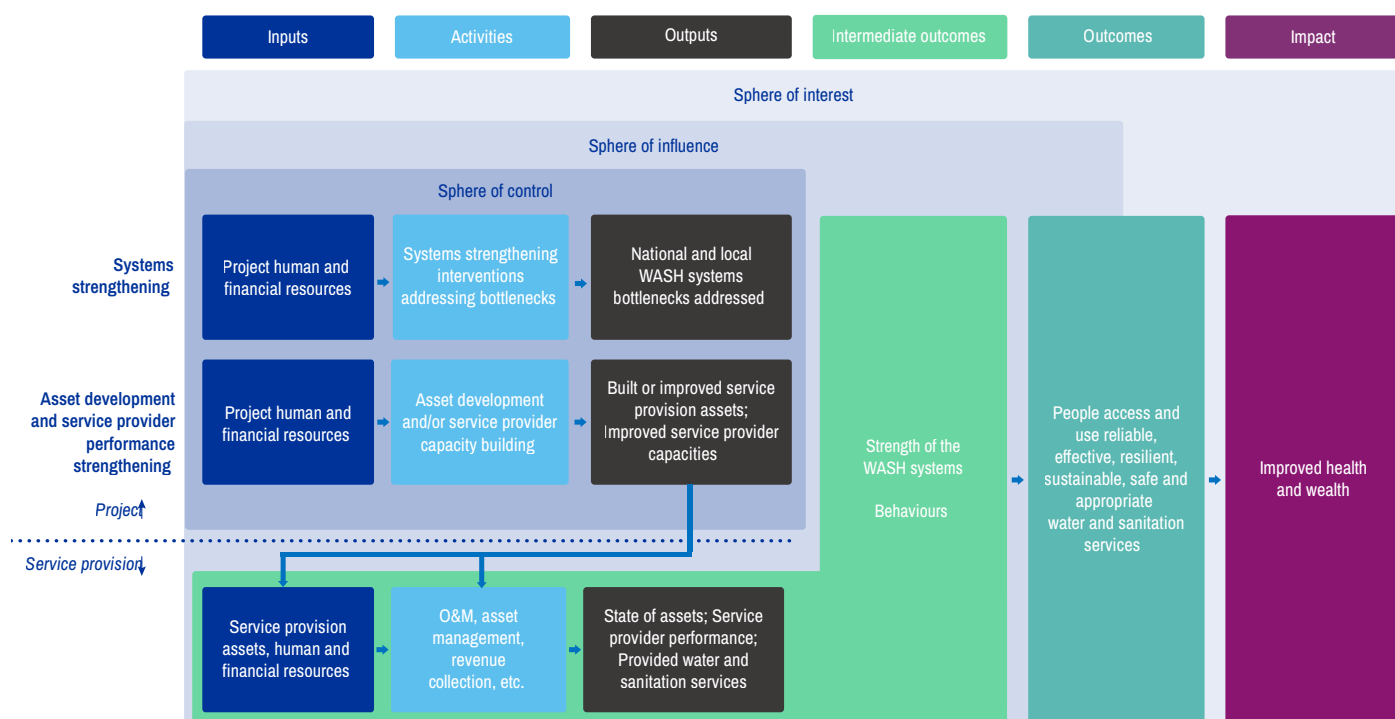
2.4 Trends in monitoring WASH projects

The above-described monitoring trends in the development sector, going from more linear, output-focused approaches, to more complex approaches focused more on outcomes, has also been observed in the WASH sector. Although log frames are still widely used, especially for reporting for accountability to financiers, many NGOs and development partners have developed project monitoring systems and processes beyond log frames, to capture the complexities of contexts and interventions.

From monitoring outputs to monitoring outcomes

In the mid-2000s, several WASH financiers started requiring projects to report on outcomes and impact beyond their project span. The Coca-Cola funded projects managed by Global Environment and Technology Foundation (GRTF), for example, have been requested to supply data on post-implementation service levels, often several years after project closure, to

Figure 3: WASH results chain



assess the sustainability, particularly of infrastructure development projects.

DGIS introduced **sustainability clauses** into the WASH projects it was funding in 2006. These were intended to hold WASH project implementers accountable for the sustainability of the infrastructure they put in place with DGIS funding for up to ten years after project completion. **Sustainability checks** were intended as tools to monitor whether Dutch funded infrastructure was functional and used properly after completion of the project, but also to trigger partners and governments to take any necessary corrective action to ensure sustainability (Verhoeven, Uijtewaalt and Schouten, 2015). UNICEF designed and conducted sustainability checks in Malawi and Mozambique in 2008. Subsequently, UNICEF started undertaking sustainability checks in various countries, either as a one-off assessment, or on a periodic basis (UNICEF, IRC and Akvo, 2016). Sustainability checks became an important part of UNICEF's sustainability framework, consisting of 1) a bottleneck analysis identifying the aspects that hinder sustainability in the sector, 2) establishment of a sustainability compact between UNICEF and government, 3) regular monitoring through sustainability compacts. UNICEF included two additional components to make the framework more actionable: Actions plans for operationalising the sustainability compact and joint management responses to sustainability checks by governments and UNICEF (Jiménez et al., 2017). Sustainability checks were also applied beyond UNICEF, e.g. by the Netherlands SDG programme, where they were applied at the programme mid-line and endline (Mooijman, et al., 2023). Institutionalisation of sustainability checks in national processes proved challenging due to their high costs and limited national capacities (UNICEF, IRC and Akvo, 2016).

Similarly, in 2012, WaterAid launched its Sustainability framework and **Post-Implementation Monitoring Surveys (PIMs)** across its country programmes, which include representative surveys conducted one year, three years and five years after implementation. This was intended to identify whether the water and sanitation services implemented by WaterAid's partners have lasting benefits and are reaching all members of the community (Hinds and Nhaurire, no date). FCDO's WASH Results Programme (2014-2021) also focused on outcomes in terms of people gaining sustained access to water and sanitation services, rather than inputs and reported activities. This PaymentbyResults (PbR)-type programme linked payments

to independently verified outcomes rather than inputs. The three NGO consortia engaged in the programme in 11 countries were paid only when thirdparty verification confirmed that people had gained sustained access to improved water, sanitation and hygiene services, with outcomes measured up to two years after initial delivery. This approach incentivised largescale delivery, equity, longterm behavioural change and rigorous monitoring systems, but also required substantial investment in setting realistic outcome targets, managing delivery risks and developing robust verification frameworks. The programme ultimately reached millions of people across 11 countries and generated widely cited lessons on designing PbR mechanisms in the humanitarian and development WASH sector (ePact, 2020).

Country-led and global monitoring have also seen a shift in focus from monitoring outputs (especially in terms of number of facilities and schemes) to monitoring outcomes (in terms of people having access to better services). The Joint Monitoring Programme (JMP) of UNICEF and WHO has been setting global service level norms and standards used to monitor progress on water and sanitation towards global goals: the Millennium Development Goals (2000-2015) and the Sustainable Development Goals (2015-2030). While in the MDG era the focus was on access to improved water and sanitation facilities, with a strong emphasis on outputs, in the SDG era (2015-2030) the focus is on access to different service levels, with a stronger emphasis on outcomes.

Assessing and monitoring outcomes in terms of people with better services in a project setting, requires repetitive survey data. JMP and household survey data produced by strategic agencies are commonly only representative at national, but not local level. Ideally, country-led monitoring systems should be in place that provide representative service level data on an ongoing basis, which could be used by projects for their monitoring processes. This is, however, often not the case. As a result, projects and programmes often collect these data themselves. This is more difficult and resource intensive than monitoring outputs. Development of mobile data collection tools, like Akvo FLOW and mWater, has played an important role in enabling data collection, processing and visualisation. However, monitoring outcomes in terms of improved service levels remains labour and resource intensive.

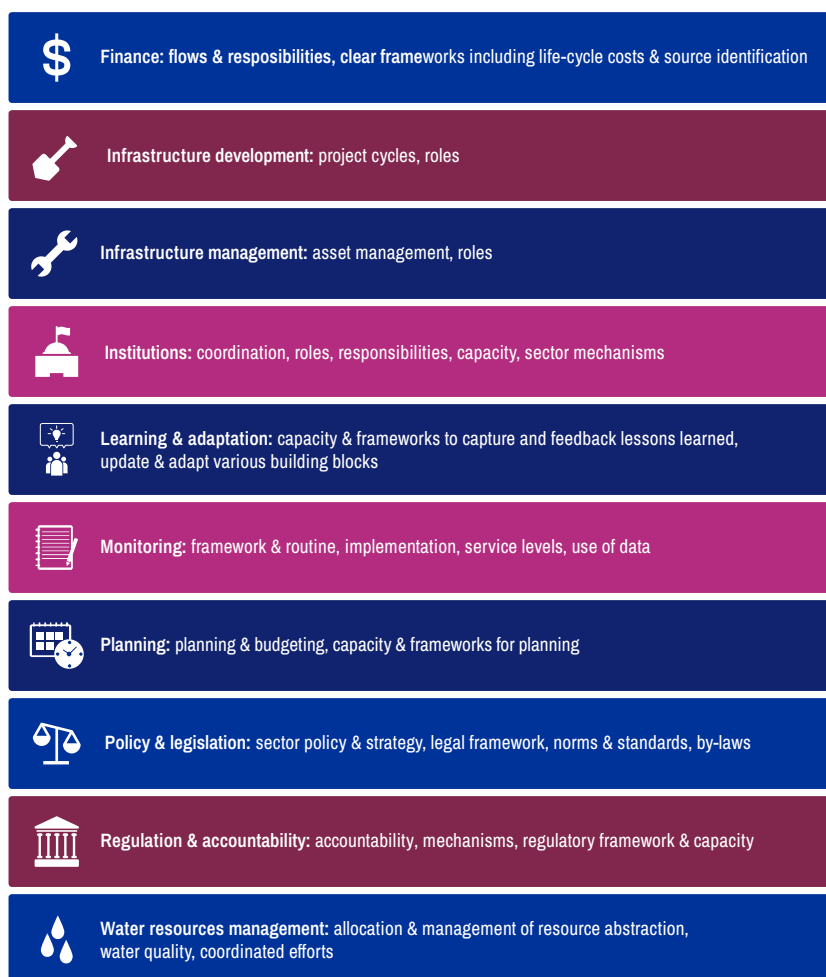
Monitoring systems strength

In line with the inclusion of systems strengthening interventions in WASH projects over the last decade(s), development partners like UNICEF, Water For People, WaterAid, Welthungerhilfe and IRC have developed and applied tools for assessing and monitoring WASH systems strength. Although there are many different versions of building block frameworks and tools, these commonly involve assessing and monitoring the strength of a set of systems components or building blocks, including institutional, financial, infrastructural, regulatory, planning and monitoring building blocks. An example of WASH systems building blocks, from WASH Systems for Health, is presented in Figure 4. It should be noted that while this is an very valuable monitoring tool, it tends to silo aspects of the system into specific boxes and risks missing some of the interlinkages and interdependencies of the individual blocks.

Projects commonly involve (local and national) governments and other sector stakeholders in assessing and monitoring WASH systems. Bringing these stakeholders together and involving them in a participatory assessment process takes time and resources, requires good facilitation and depends on trust between stakeholders. It should therefore ideally not be done by individual projects, but at sectoral level, not only informing projects, but also wider sector reflection, decision-making and accountability.

Several initiatives have stimulated and facilitated institutionalisation of such tools into government systems. Under the USAID-project Isoko y'Ubuzima, for example, Water For People and IRC supported the Rwandan government and its partners in conducting national building block assessments, which informed the development of costed sectoral multi-year action plans aligned with government programmes and spearheaded by the Ministry of Infrastructure.

Figure 4: WASH system building blocks



In 2013, under the Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) initiative, WHO in collaboration with UNICEF started compiling global data on WASH systems including policy frameworks, institutional arrangements, monitoring systems, regulation, human resources and finance. These data have since been compiled and published on a two-to-three-year basis. It intends to provide policy- and decision-makers at all levels with reliable, easily accessible, comprehensive data on water, sanitation and hygiene systems.

In 2024, WHO and UNICEF, in collaboration with the World Bank, launched the Align to Accelerate (A2A) initiative, which aims to develop and test a common monitoring and review

framework comprising an agreed set of core indicators that function as “vital signs” to measure and track the strength of the WASH system at the national level (WHO and UNICEF, 2025). The initiative identified a total of eight indicator domain families and one cross-cutting indicator set (see Figure 5). Expert groups, consisting of representatives from governments, development partners, civil society, private sector and academia have contributed to identifying and prioritising a set of core indicators along the results chain. At the time of writing of this learning note, this development was ongoing, with finalisation and piloting of the resulting indicator set as next steps.

Figure 5: A2A Indicator domain families.

INDICATOR DOMAIN FAMILY 1 Policy Legislation Sector reform Strategy Planning, monitoring, review Learning and adaptation Data and information Anti-corruption framework	INDICATOR DOMAIN FAMILY 2 Institutions Institutional capacity Institutional framework Institutional arrangements Coordination Partnerships and cooperation Government leadership Prioritization of WASH	INDICATOR DOMAIN FAMILY 3 Regulatory Framework Regulations, rules, technical standards Regulatory functions ^a Compliance, enforcement, reporting Surveillance Accountability mechanisms Audits, Corporate Governance Service level & quality ^b Operational sustainability & efficiency (non-revenue water, cost recovery) Commercial efficiency & performance Environmental sustainability Circularity
INDICATOR DOMAIN FAMILY 4 Public engagement processes Levels of participation Public Satisfaction Public information Public awareness, outreach Behaviours and attitudes Behaviour change programme Behaviour change	INDICATOR DOMAIN FAMILY 5 Human capital WASH workforce Human resources management ^c Capacity development/ training Staffing levels, performance Job creation Worker Safety	INDICATOR DOMAIN FAMILY 6 Infrastructure assets Service delivery models Technical management & support Asset Management Infrastructure development ^d New construction and rehabilitation ^e Service delivery Maintenance Functionality Water resources availability Water storage capacity
INDICATOR DOMAIN FAMILY 7 Funding, Financing Financial Management Tracking Finance Flows Budgeting, Expenditure Financial performance Financial viability Creditworthiness	INDICATOR DOMAIN FAMILY 8 <u>Frontier Issues</u> Emerging topics, including innovation(s) Exploratory indicators, including composite indicators	CROSS - CUTTING AREAS Area 1. Gender, equity, disability, affordability, social inclusion, human rights Area 2. Resilience and risk, including climate change <u>Other areas:</u> Interactions between domains Private sector: Role, participation, partnerships (PPPs) ^f

Source: (WHO and UNICEF, 2025)

3. WASH systems strengthening along the results chain: The WASH Systems for Health case

This section introduces and describes the monitoring approach applied by the WASH Systems for Health project as an example of a project focused on WASH systems strengthening. This approach consisted of the following elements:

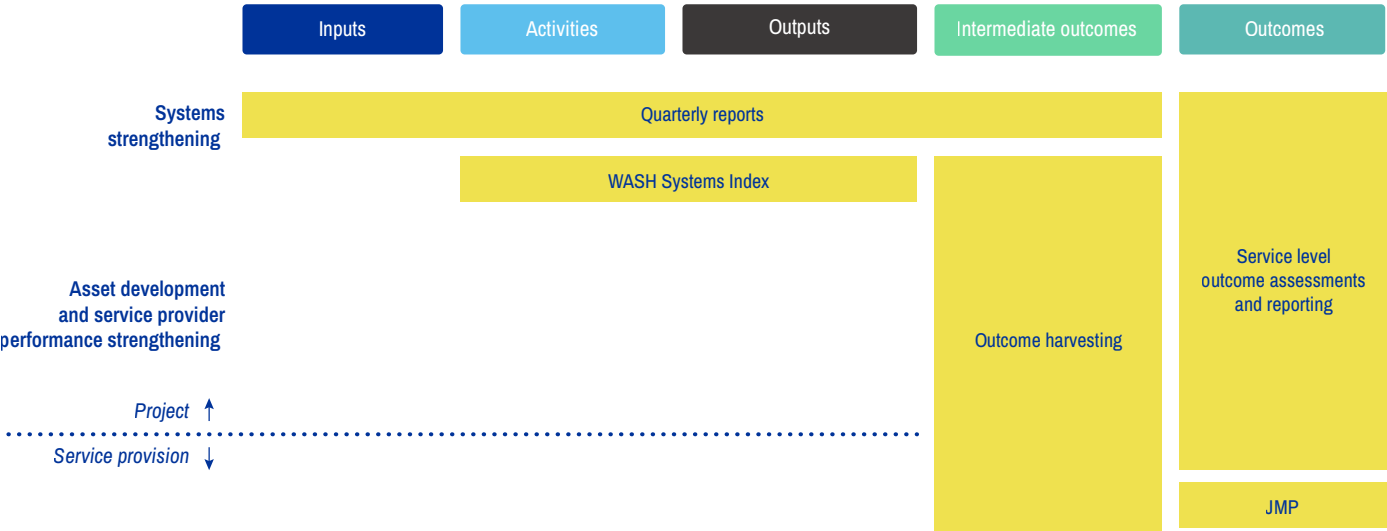
- 1. A log frame, with general output, intermediate outcome and outcome indicators and milestones, against which progress was assessed and reported on an annual basis for accountability towards FCDO;
- 2. Output tracking tools, for tracking specific outputs related to learning events, knowledge products and the WASH hub;
- 3. Outcome harvesting related to observed change in global actors as a result (contribution) of generated and disseminated evidence as part of the global research, learning and influencing activities of the project;
- 4. Results chains for project implementation in six countries by implementing partners, in partnership with national and local governments and other stakeholders, with different tools for monitoring progress along the results chain (as shown in Figure 6).

The monitoring related to the second and third component directly inform the annual log frame reporting. This section focuses on the fourth component: monitoring of progress along the WASH systems strengthening results chain. Mon-

itoring along the systems strengthening results chain within the WASH Systems for Health project was expected to inform decision-making and adaptive management in project implementation by the implementing partners. In addition, the WASH Systems for Health monitoring approach was expected to inform accountability of the implementing partners (and the facility) towards the governments and beneficiaries in the focus countries and of the project towards its funder, FCDO and the UK government and its constituents. The close alignment of the project monitoring framework with the log frame enabled this.

This section provides insight into the development of the results chains (Section 3.1). This is followed by a description of the tools and processes for monitoring progress along the results chains and their application, including quarterly reporting by IPs (Section 3.2), the WASH Systems Index tool (Section 3.3), outcome harvesting (Section 3.4) and tracking progress on outcomes in terms of service levels (section 3.5). This is followed by reflections on how to move from project monitoring along the results chain, to country-led monitoring (Section 3.6). The section closes with lessons learnt on the development, application and institutionalisation of the WASH Systems for Health monitoring framework (Section 3.7).

Figure 6: An overview of the monitoring tools applied along the results chain



3.1 Development of the WASH Systems for Health results chains

Based on the theory of change developed by each implementing partner with support from the Facility, each partner developed a results framework in the first year of the project. Results chains were developed to define clear:

- Activities to be undertaken in order to contribute to systems strengthening, addressing specific systems bottlenecks;
- Concrete outputs within the direct sphere of control of the project, related to systems interventions aimed at addressing identified key systemic bottlenecks;
- Intermediate outcomes, related to strengthening of prioritised building blocks;
- Outcomes in terms of people having access to better WASH services, at home and in healthcare facilities.

Implementing partners (IPs) involved government and other sector players (e.g. other NGOs and development partners, academic and research institutions, private sector) in shaping the results chain, especially the outputs and intermediate outcomes. This was typically done in a workshop setting, with facilitation from the IP, supported by the Facility. This ensured

alignment with other sector initiatives, creating synergy and avoiding replication.

For each of the outputs, the IPs defined narrative output milestones, describing the expected progress to be made in each year. This process helped the IPs in articulating change narratives around the outputs and establishing concrete annual milestones against which progress could be monitored throughout the project period. In line with the adaptive management approach applied in the project, there was space for an annual review and, where needed, a revision of the outputs and annual output milestones. Table 2 presents an example of annual output milestones.

3.2 Quarterly reporting along the results chain by the implementing partners

Quarterly narrative and financial monitoring reports by implementing partners were mainly intended to inform the funder (FCDO) of progress made. In addition, the reports were intended to spark reflection and adaptation by the IPs. The Facility was to use the reports to provide quality assurance and strategic advice to the IPs. The reports covered inputs, activities, outputs and (intermediate) outcomes.

Table 2: Example of annual output milestones in the WASH Systems for Health Nepal results framework

Intermediate Outcomes	Outputs	Output Milestone Mar. 24 - Feb. 25	Output Milestone Mar. 25 - Feb. 26	Output Milestone Mar. 26 - Feb. 27	Output Milestone Feb. 27 - Dec. 27
IO2: Institutions strengthened for supporting Local Governments (LGs) in two provinces in preparing evidence/MIS-based WASH plans and budgets and improving public finance flows and using them to make progress on inclusive, resilient and sustainable, safely managed sanitation and hygiene service delivery in rural areas.	Nepal WASH Management Information System (N-WASH MIS) based LG WASH plans developed and used, by all rural municipalities of one model district in each of two provinces, for annual planning, budgeting and implementation of activities for inclusive, resilient and sustainable, safely managed sanitation and hygiene service delivery.	Model district in Madhesh and Koshi Provinces identified.	Data collected on N-WASH MIS for all the Rural Municipalities (RMs) in model districts in two provinces.	LG WASH Plan developed for all RMs in model district and being used for annual planning for WASH.	N-WASH MIS updated based on progress on safely managed sanitation and hygiene.

Inputs were tracked through expenditure reporting.

Outputs were reported in terms of:

- Progress on annual narrative milestones defined for each output in the results chain. On a quarterly basis, progress was reported quantitatively as an estimated percentage of progress made towards achieving each milestone, supported by a narrative description of progress made and a justification of the reported percentage.
- Number of events organised by the IP in the reporting period.
- Number of knowledge products produced by the IP in the reporting period.

Intermediate outcomes were reported through narratives describing progress in systems strengthening resulting from project activities and outputs. These were informed by observations and outcomes of changes in the behaviours of targeted sector stakeholders, as recorded and harvested by the IPs.

Where possible and relevant, **outcomes** in terms of improvement of WASH services for people and institutions, resulting from the project's activities and outputs, were also reported in narrative form.

A Word template to guide the IPs' quarterly reporting was co-developed by FCDO and the Facility, with feedback and input from IPs. As the template was quite elaborate and cumbersome, one year into the project, the decision was made that IPs would only report on this template in quarters 1 and 3. In quarters 2 and 4 a simpler template was used which still covered reporting on inputs, outputs, intermediate outcomes and outcomes.

In order to provide strategic monitoring and quality assurance of the project, the Facility reviewed the quarterly IP reports and provided feedback and recommended actions for the way forward. Quality assurance reports were shared with FCDO, who added their comments and suggestions and shared it with the implementing partners. Written feedback and suggestions were discussed on a quarterly basis during meetings with the IPs, Facility and FCDO.

This process provided FCDO with a clear overview on progress made on outputs and (intermediate) outcomes and enabled the Facility and FCDO to provide timely recommen-

dations for course-correction.

3.3 The WASH Systems Index tool

The WASH Systems Index tool was developed to assess WASH systems strength and monitor change over time. It was originally designed and implemented as a tool for monitoring progress on intermediate outcomes related to systems strengthening. In addition, it served as a tool for monitoring progress on outputs related to project interventions addressing specific systems bottlenecks. In addition to serving as a tool for assessing systems strength and measuring progress on outputs and intermediate outcomes to inform project decision-making and accountability, the WASH Systems Index tool was expected to provide the wider sector with insights on WASH systems strength for informing sectoral reflection, decision-making and accountability. A general version of the WASH Systems Index tool can be [found here](#).

Development and structure of the WASH Systems Index tool

In 2024, the Facility, with input from all implementing partners, developed the WASH Systems Index Tool, building on IRC's conceptualisation of the building blocks (Huston and Moriarty, 2018) and its Building Block assessment tool, which had been in use for nearly a decade to assess systems strength progress at national and local levels in IRC's focus countries. Other instruments for assessing and tracking WASH systems strength, including UNICEF's Bottleneck Assessment and Water For People's Sustainable Services Checklist, also informed the development of the WASH Systems Index tool.

The resulting Excel-based WASH Systems Index tool consists of separate assessment sheets for: 1) national water supply, 2) national sanitation and hygiene, 3) WASH in healthcare facilities and 4) WASH at local (district) level. Each sheet includes a list of benchmark statements related to ten WASH systems building blocks.

The strength of the WASH system is assessed by rating each benchmark against the current situation, indicating whether the benchmark statement is: fully true (100%), mostly true (75%), partially true (50%), insufficient (25%), or non-existent (0%). Rating of the benchmarks has to be accompanied by narratives justifying the assigned rating. Also references to data sources need to be provided where relevant.

Figure 7 presents an overview of the WASH System Index tool, with its different sheets for national water, sanitation and hygiene, WASH in healthcare facilities¹ and local WASH. Each sheet includes three to seven benchmarks for strong WASH systems for each of the ten building blocks.

Aggregates of the individual benchmark scores per building block provide insight into the strength of each building block.

An innovative feature of the WASH Systems Index tool is its aggregated index scores on three cross-cutting themes: Gender, Equity, Social Inclusion (GESI), Capacities and Climate Resilience. The GESI, Capacities and Climate Resilience Index scores each consist of average scores of multiple benchmarks across the different building blocks related to each theme providing an indication of the general systems strength on these crosscutting themes. The list of benchmark statements for each building block across the different sub-sectors and levels can be found in Annex 1.

Another innovative feature of the WASH Systems Index tool is that it can be used for assessing progress on specific benchmarks directly related to the project's outputs. To enable this, IPs have selected specific benchmarks across the building blocks and sub-sectors which they consider to be directly related to the expected outputs, as described in the results framework. These are the benchmarks that the project intends to directly influence through its systems interventions. Average scores on these selected **output-related benchmarks** were used to track progress on the project's outputs. In this way, the WASH Systems Index tool has the potential to provide not only an assessment of the strength of the system as a whole (as an expected intermediate outcome of systems interventions), but also of the progress on specific elements (benchmarks) of the system that are directly related to those interventions.

Figure 7: WASH Systems Index tool

WASH Systems Index tool detail

	Rating	Score
Overall building block score		75%
Benchmark 1: A legal framework for the sector is in place.	Fully present	100%
Benchmark 2: National guidelines for development and management of services are in place.	Fully present	100%
Benchmark 3: National Sector Policy and Strategy is in place.	Partially true	50%
Benchmark 4: Norms and standards for quality of works and service delivery are in place.	Partially true	50%
Benchmark 5: The legislation and policies acknowledge those left behind (based on gender, disabilities, socially or economically marginalised, etc.) and have provisions to ensure everyone is covered with WASH services.	Mostly true	75%
Benchmark 6: There is a strategic framework in which environmental and climate change adaptation policies and strategies (including National Adaptation Plans (NAPs) and Nationally Determined Contributions (NDCs)) are aligned with those of WASH and vice versa.	Mostly true	75%

WASH Systems Index tool

Each sheet of the WASH Systems Index tool is dedicated to a particular subsector or level with its own benchmarks across each of the ten building blocks.



¹ The WASH Systems for Health project did not focus on WASH in institutions other than health care facilities. However, the same or similar benchmarks could be used for WASH in other institutions, such as WASH in schools, government offices, etc.

Application of the WASH Systems Index tool

The WASH Systems Index tool was intended to be applied on annual basis. At the time of the premature closure of the project, the WASH Systems Index tool had been applied in 2024, setting the baseline and 2025, providing an update as well as insight into progress made.

At the start of the project in 2024, a full WASH Index tool assessment was done for each relevant sub-sector in each country, at national and local level. In all countries, the rating of the benchmarks was done through participatory sessions, involving relevant stakeholders from national and local level, including government, development partners and, where relevant, private sector and academics. In some countries, this was done through existing platforms. In Malawi, for example, the rating and scoring was done through the National Technical Working Group, with the Sector working group validating the assessment. Where possible, the WASH Systems Index tool assessment builds on existing assessments and data. In Tanzania for example, the national baseline assessment built on a similar assessment relatively recently done by Water For People Tanzania.

Towards the end of 2025 and the beginning of 2026, a second round of WASH System Index tool assessments was conducted, again through participatory processes involving, as much as possible, the same stakeholders who had participated in the baseline assessment in order to ensure consistency in how the rating was done. To save time and maintain a focus on the areas of influence (intermediate outcomes), it was agreed that the assessment should prioritise the building blocks targeted by the WASH Systems for Health programme, with scores on non-priority building blocks assumed to remain unchanged. Any actual progress on non-priority building blocks, potentially resulting from multiplier effects of strengthening other building blocks, would be captured in the endline. Changes in systems strength, especially in the non-priority

building blocks, could also be the result of systems interventions or developments beyond the project, or of changes in the context. In addition to the rating of the benchmarks, the narrative justification of the score and an analysis of the observed change were therefore a critical part of the assessment.

WASH Systems Index tool results

The baseline WASH Systems Index tool assessment provided useful insight into the strengths and weaknesses of the WASH systems in the focus countries. Table 3 presents an overview of the baseline results at national level (local-level baseline results can be found in Annex 1). The table shows lower scores for sanitation than for water within each country. It also shows that overall, the regulation and accountability and the monitoring building blocks scored lowest. The climate index score was found to be generally low (with the exception of Nepal).

It should be noted that the WASH Systems Index tool is primarily designed for monitoring WASH systems strength over time in a specific country rather than for cross-country comparison. Although the tool is designed to support objective assessment, a degree of subjectivity is inherent in the participatory rating process, which **limits the value of direct comparisons between countries**.

Following the baseline assessment, the IPs² assessed expected progress over the course of the project in the years to come (2025, 2026 and 2027). The resulting scores provided the intermediate outcome and output scores against which progress was to be measured. Table 4 presents an example from Tanzania. It shows some building blocks with expected changing scores over time. These are the building blocks the systems interventions focused on and where the greatest progress was expected. Scores on other building blocks, on which scores were not expected to change, were not targeted by the planned systems interventions.

² As this mainly served the project accountability purpose and in order to save time and resources, it was decided this was to be done by the IPs, without involvement of sector stakeholders. However, involvement of sector stakeholders could have enriched this process and could have facilitated sector reflection on expected progress and how to achieve that beyond the project.

Table 3: WASH Systems Index baseline score, national level

Baseline								
	Bangladesh	Nepal	Cross-river state	Kano state	Sierra Leone	Malawi	Tanzania	Average
Capacity	39%	43%	33%	40%	40%	52%	52%	43%
Climate	26%	54%	13%	29%	35%	48%	38%	35%
GESI	41%	36%	25%	29%	52%	46%	45%	39%
Water, average BB score	42%	50%	36%	38%		54%	59%	47%
Finance	45%	65%	55%	20%		55%	45%	48%
Infrastructure development	44%	63%	44%	56%		63%	50%	53%
Infrastructure management	25%	56%	31%	50%		69%	69%	50%
Institutions	34%	38%	25%	31%		66%	56%	42%
Learning & adaptation	42%	60%	29%	29%		54%	33%	41%
Monitoring	39%	39%	32%	39%		29%	68%	41%
Planning	50%	50%	40%	40%		35%	70%	48%
Policy & legislation	67%	58%	46%	46%		75%	67%	60%
Regulation & accountability	30%	30%	15%	55%		40%	45%	36%
Water resource management	45%	40%	40%	10%		60%	90%	48%
Sanitation and hygiene, average BB score	36%	49%	18%	31%	46%	45%	52%	40%
Finance	40%	45%	15%	20%	30%	55%	30%	34%
Infrastructure development	44%	63%	13%	31%	56%	50%	63%	46%
Infrastructure management	17%	58%	0%	8%	42%	67%	75%	38%
Institutions	31%	38%	25%	34%	53%	63%	63%	44%
Learning & adaptation	38%	60%	4%	29%	42%	50%	63%	41%
Monitoring	36%	39%	11%	11%	32%	25%	43%	28%
Planning	40%	60%	25%	45%	50%	40%	50%	44%
Policy & legislation	58%	58%	38%	54%	58%	25%	58%	50%
Regulation & accountability	25%	30%	30%	35%	20%	35%	25%	29%
Water resource management	35%	40%	20%	45%	75%	40%		43%
WASH in healthcare facilities, average BB score					42%		55%	49%
Finance					17%		50%	33%
Infrastructure development					63%		63%	63%
Infrastructure management					33%		50%	42%
Institutions					29%		57%	43%
Learning & adaptation					42%		63%	52%

Monitoring					58%		63%	60%
Planning					35%		45%	40%
Policy & legislation					38%		56%	47%
Regulation & accountability					33%		33%	33%
Water resource management					75%		75%	75%

Table 4: WASH Systems Index milestone scores

	Tanzania water				Tanzania sanitation and hygiene				Tanzania WASH in healthcare facilities			
	Baseline (2024)	2025	2026	Endline (2027)	Baseline (2024)	2025	2026	Endline (2027)	Baseline (2024)	2025	2026	Endline (2027)
Finance	45%	45%	60%	60%	30%	31%	31%	30%	50%	63%	75%	83%
Infrastructure (development)	50%	50%	50%	50%	63%	69%	69%	69%	63%	75%	75%	75%
Infrastructure management and service delivery models	69%	69%	69%	69%	75%	75%	75%	75%	50%	50%	50%	50%
Institutions	56%	56%	66%	88%	63%	66%	72%	84%	57%	61%	68%	82%
Learning & adaptation	33%	33%	54%	54%	63%	63%	71%	83%	63%	63%	63%	63%
Monitoring	68%	68%	68%	82%	43%	43%	61%	79%	63%	67%	75%	92%
Planning	70%	70%	70%	70%	50%	50%	65%	75%	45%	45%	65%	80%
Policy & legislation	67%	67%	71%	79%	58%	58%	63%	75%	56%	56%	56%	56%
Regulation & accountability	45%	50%	55%	75%	25%	25%	25%	25%	33%	33%	33%	33%
Water resource management	90%	90%	90%	90%	0%	0%	0%	0%	75%	75%	75%	75%
Building block average	59%	60%	65%	72%	47%	48%	53%	60%	55%	59%	63%	69%

Table 5: Output milestones Malawi

Output	Baseline (2024)	2025 milestone	2026 milestone	2027 milestone
Output 1.1. Clearly defined service delivery models are identified, tested, documented and disseminated. Hence informing area - wide rural water supply services (for both handpumps and piped networks).	70%	70%	83%	98%
Output 1.2. Clear definition of the regulatory functions (including roles and responsibilities) for water supply service regulation.	44%	51%	67%	78%
Output 1.3. Financial functions of the 3 district water offices and that of southern regional water board strengthened.	44%	49%	65%	78%
Output 2.1. Context specific service delivery models for safely managed sanitation and hygiene promotion are developed and piloted.	44%	50%	66%	78%
Output 2.2. Popularisation of guiding documents for safely managed sanitation models and improved hygiene behaviours.	53%	62%	78%	90%
Output 2.3. Inclusive, climate-resilient (evidence-based) costed plans (for finance, capacity, monitoring etc) for safely managed sanitation are developed and disseminated -community, district, national levels.	60%	64%	78%	88%
Output 2.4. (Crosscutting) dynamic integrated learning platforms discuss emerging evidence on water supply and safely managed sanitation and hygiene make recommendations to improve sector performance.	48%	53%	72%	85%
Average output-related benchmark score	52%	57%	73%	85%

The assessment of expected progress on all benchmarks also provided insight into expected progress on the outputs. Table 5 provides an example of output milestones from Malawi.

The outputs commonly relate to benchmarks across multiple building blocks and possibly across different levels (national, local) and sub-sectors (water supply, sanitation and hygiene, WASH in healthcare facilities). Malawi's output 1 for example refers to national level benchmarks related to water infrastructure management, institutions, monitoring, policy and legislation and regulation and accountability building blocks. The outputs address the main bottlenecks in the system. There-

fore, the baseline scores on the output-related benchmark scores were generally lower than the overall building block scores.

Over the years, WASH Systems Index tool scores were to be compared to the milestone scores. The 2025/26 assessment showed considerable progress and overall scores exceeding the milestone scores, as indicated in Table 6, providing an example of building block scores from Malawi. Table 7 provides an overview of the 2025 scores against the milestones in the six countries. It shows substantial increase in scores on most building blocks, exceeding the target score.

Table 6: 2025 WASH Systems Index score results, Malawi

	Malawi water		Malawi sanitation and hygiene	
	Baseline (2024)	2025	Baseline (2024)	2025
Climate Index	50%	63%	45%	66%
Capacity Index	56%	65%	48%	66%
GESI Index	48%	69%	43%	52%
Finance	55%	75%	55%	55%
Infrastructure development	63%	75%	50%	81%
Infrastructure management and service delivery models	69%	81%	67%	67%
Institutions	66%	72%	63%	69%
Learning & adaptation	54%	83%	50%	71%
Monitoring	29%	54%	25%	25%
Planning	35%	60%	40%	75%
Policy & legislation	75%	100%	25%	63%
Regulation & accountability	40%	45%	35%	30%
Water resource management	60%	80%	40%	70%
Average all building blocks	54%	73%	45%	61%
Target average all building blocks		58%		47%
% of target		125%		128%

Table 7: WASH System Index tool milestones and actual 2025 scores

	National water			National sanitation			National healthcare facility WASH			Average		
	milestone	actual	% of target	milestone	actual	% of target	milestone	actual	% of target	milestone	actual	% of target
Bangladesh	42%			36%						39%		
Nepal, Koshi Province	35%	47%	✓ 132%	34%	47%	✓ 137%				35%	47%	✓ 135%
Nepal, Madhesh province	37%	42%	✓ 116%	34%	42%	✓ 122%				41%	42%	✓ 119%
Nigeria, Cross River State	47%	50%	✓ 107	31%	43%	✓ 140%				39%	47%	✓ 120%
Nigeria, Kano State	43%	56%	✓ 131%	41%	50%	✓ 123%				42%	53%	✓ 127%
Sierra Leone				46%	59%	✓ 129%	42%	65%	✓ 154%	44%	62%	✓ 141%
Malawi	58%	73%	✓ 126%	47%	61%	✓ 128%				53%	67%	✓ 127%
Tanzania	60%	64%	✓ 108%	53%	52%	✗ 98%	55%	59%	✓ 101%	57%	59%	✓ 102%

Use of the WASH Systems Index tool results

As mentioned above the WASH Systems Index tool assessments were primarily intended to inform project decision-making and accountability. In addition, the assessment, especially the full application of the tool in the baseline and endline were expected to also inform sectoral reflection, decision-making and accountability.

The tool managed to supply data for annual (2024 and 2025) project reporting against the log frame to FCDO. This provided well-founded evidence for progress made within the project and was an important factor in the annual project review process.

The baseline assessment results were used by the IPs to inform adaptation of their project design. In Tanzania, for example, the WASH Systems Index tool results highlighted regulation and accountability as one of the weakest links at both national and sub-national levels. This directly triggered a visioning process with the Rural Water and Sanitation Agency (RUWASA) and other stakeholders on the future of rural WASH regulation and shaped SNV's decision to establish regulation as a dedicated systems intervention to be addressed by the project. However, the WASH Systems Index tool was introduced and implemented after IPs had already developed their results framework. This limited the extent to which the findings could be used to inform the IP's results frameworks. If the baseline on the WASH Systems Index tool had been undertaken before the setting of the results chain, it could have informed prioritisation of systems interventions by the IPs and its sectoral partners and could have strengthened the results chain,

As stakeholders have been actively involved in the rating and validation process, sense of ownership of the findings was generally high. Findings of the WASH Systems Index tool baseline assessment were shared with local and national stakeholders. In Nepal, factsheets were created and in Tanzania, posters showing the main results were produced and disseminated to national and local governmental stakeholders, many of whom put the posters in their office. This contributed to stakeholders undertaking systems strengthening initiatives beyond the project. For example, in Bahi District in Tanzania, upon observing the low scores on the learning and adaptation building block, the district health officer identified platforms for regularly sharing learning and discussing adaptation.

At the national level, similar assessments on WASH systems strength have taken place, for example using UNICEF's WASH Bottleneck Analysis Tool, Sanitation and Water for All's monitoring framework, or the GLAAS indicators. This has not been the case at sub-national level. At this level, the application of the WASH Systems Index tool was considered particularly valuable.

The WASH Systems Index tool assessments have, in several countries, been conducted through existing government-led platforms, such as Technical Working Groups in Malawi, enabling alignment with national monitoring processes. However, the degree to which monitoring outputs have fed directly into government decision-making has varied considerably across contexts, reflecting differences in sector governance, IP convening capacity and the maturity of existing sector coordination mechanisms.

3.4 Outcome harvesting

While working to influence specific aspects of a system within a project, other interconnected areas are often affected as well. For example, efforts to strengthen planning processes across different levels of government may also influence financial aspects (such as budget allocations and expenditures) and institutional capacities for planning and budgeting. As a result, (intermediate) outcomes may emerge beyond the project's primary focus or original intent.

Outcome harvesting captures changes and progress in complex projects involving multiple actors and dynamic, unpredictable contexts. It focuses on identifying (intermediate) outcomes as changes in behaviour and practices of social actors, which may be intended or unintended, large or small and positive or negative.

Outcome statements include three elements:

- **The outcome description:** This involves one or several sentences describing the observed change made by an actor that was influenced by the project, directly or indirectly, intentionally or unintentionally. This should include a clear description of the who, what, when and where of the observed change.
- **Significance:** This describes why the change matters. E.g. whether it is the first time this change is observed,

or whether it involves a significant systemic change.

- **Contribution description:** This describes the project activities and outputs that have contributed to this change.

It is important to note that this approach does not assess the quality of the contribution, but rather acknowledges the contribution itself and considers contextual factors that may have enabled the observed changes. It does not directly attribute the change to the project activities and outputs.

Outcome statements should be as factual as possible and should be verifiable by an outsider. Reflecting/sense-making on the harvested outcomes can provide insight into which areas or intermediate outcomes have progressed the most.

WASH Systems for Health IPs mainly captured and reported on behavioural outcomes as part of the quarterly reports. In 2025, a more robust outcome harvesting methodology was introduced. This was expected to provide a more structured method for capturing change in intermediate outcomes beyond the ones captured in the WASH Systems Index tool. Also, where the WASH Systems Index tool would have provided a sectoral perspective of progress, outcome harvesting would have directly provided insights into the project's contribution to the sectoral changes.

However, due to the premature closure of the WASH Systems for Health project, experience with structured outcome harvesting in the project has been limited. There is, however, considerable experience in applying this methodology in other systems strengthening projects and programmes, where it has been used to support reflection on progress, inform planning and contribute to evaluations.

3.5 Tracking progress on outcomes in terms of better services for people

For the outcomes in terms of better services for people, the project initially intended to use data compiled at global and national levels for tracking progress. JMP data were compiled for each country and linear projections were made to get an indication of the required minimum level of progress by the end of the project (2028). Table 8 presents an overview of the 2022 JMP data and projected targets.

However, the intention was to build as much as possible on existing country-led monitoring systems. Therefore, service level data available from country-level systems was collected as well, together with targets set by government. Where 2030 targets were available, 2028 targets have been estimated based on expected linear progress from the baseline to 2030. Table 9 presents an overview of these data.

Table 8: 2022 JMP data and 2028 targets

	Year	Bangladesh	Nepal	Nigeria	Sierra Leone	Malawi	Tanzania
% of people with safely managed water services	2022	59	16	29	10	18	11
	2028 target	62	9	32	12	21	13
% of people with basic water services	2022	98	91	80	65	72	61
	2028 target	99	93	88	71	76	68
% of people with safely managed sanitation services	2022	44	51	32	15	46	25
	2028 target	50	61	35	19	57	
% of people with basic sanitation services	2022	62	80	47	23	49	31
	2028 target	71	98	52	28	60	68

Table 9: Service level data from country-led monitoring systems

	Year	Bangladesh	Nepal	Nigeria	Sierra Leone	Malawi	Tanzania
Safely managed target, water	Baseline	48% (2019)	26% (2022)	13% (2021)	9% (2022)	No data	No data
	2028 target	91%	45%	71%	No data	No data	No data
	2030 target	100%	No data	87%	No data	No data	No data
At least basic target, water	Baseline	No data	95% (2022)	67% (2021)	63% (2022)	88% (2020)	(2020) Rural: 70%; Regional centres: 84% Towns: 70%; Dar es Salam: 85%.
	2028 target	No data	100%	83%	No data	98%	(2025) Rural: 85%; Regional centres: 95% Towns: 85%; Dar es Salam: 95%.
	2030 target	No data	No data	100%	No data	100%	No data
Safely managed target, sanitation	Baseline	43% (2019)	61% (2022)	18% (2021)	14% (2022)	35% (2020)	(2020) Regional centres: 13% Dar ed Salam: 13%
	2028 target	73%	65%	82%	No data	66%	(2025) Regional centres: 30% Dar ed Salam: 30%
	2030 target	80%	No data	100%	No data	74%	No data
Basic target, sanitation	Baseline		96% (2022)	46% (2021)	31% (2022)		(2020) Rural: 36%
	2028 target	No data	99%	88%	No data	No data	(2025) Rural: 75%
	2030 target	No data	No data	100%	No data	No data	No data
% healthcare facilities with basic water services	Baseline	Not relevant	Not relevant	Not relevant	60%	Not relevant	No data
	2028 target	Not relevant	Not relevant	Not relevant	No data	Not relevant	No data
	2030 target	Not relevant	Not relevant	Not relevant	No data	Not relevant	No data

% healthcare facilities with basic sanitation services	Baseline	Not relevant	Not relevant	Not relevant	17%	Not relevant	No data
	2028 target	Not relevant	Not relevant	Not relevant	No data	Not relevant	No data
	2030 target	Not relevant	Not relevant	Not relevant	No data	Not relevant	No data
% healthcare facilities with basic hygiene services	Baseline	Not relevant	Not relevant	Not relevant	22%	Not relevant	No data
	2028 target	Not relevant	Not relevant	Not relevant	No data	Not relevant	No data
	2030 target	Not relevant	Not relevant	Not relevant	No data	Not relevant	No data
% healthcare facilities with basic solid waste management services	Baseline	Not relevant	Not relevant	Not relevant	80%	Not relevant	No data
	2028 target	Not relevant	Not relevant	Not relevant	No data	Not relevant	No data
	2030 target	Not relevant	Not relevant	Not relevant	No data	Not relevant	No data
Source		Revised M&E framework for the SDGs Bangladesh perspective (2020)	The Sixteenth Plan (Fiscal Year 2024/25 – 2028/29)	Nigeria WASH, Sector Finance Advocacy Strategy and Plan (2022)	WASH National Outcome Routine Mapping Report (2023)	MIP 1 (2021)	National five-year development plan 2021/22–2025/26 (2021)
Remarks			Basic water = Households with access to drinking water facilities Safely managed = access to clean drinking water		Safely managed water = improved water on premises		Basic water = access to piped or protected water as main source Basic sanitation = improved sanitation Safely managed sanitation = households connected to public sewer systems
Data source		MICS, SID		WASHNORM	WASHNORM		

This shows:

- Bangladesh did not have data on basic water and basic sanitation
- Malawi did not have data on safely managed water and basic sanitation
- Tanzania did not have 2030 or 2028 targets, but 2025 targets. They also did not have baseline data on or targets for safely managed water.

JMP data is primarily representative at the national level. Country-led monitoring systems do not always have local-level disaggregated data. Nigeria, Tanzania and most focus districts in Malawi do not have local-level service data.

Therefore, the WASH Systems for Health project decided to look beyond JMP and country-led data on service levels and to also focus on outcomes in terms of improved services related to the targeted system interventions in the different local areas of the focus countries:

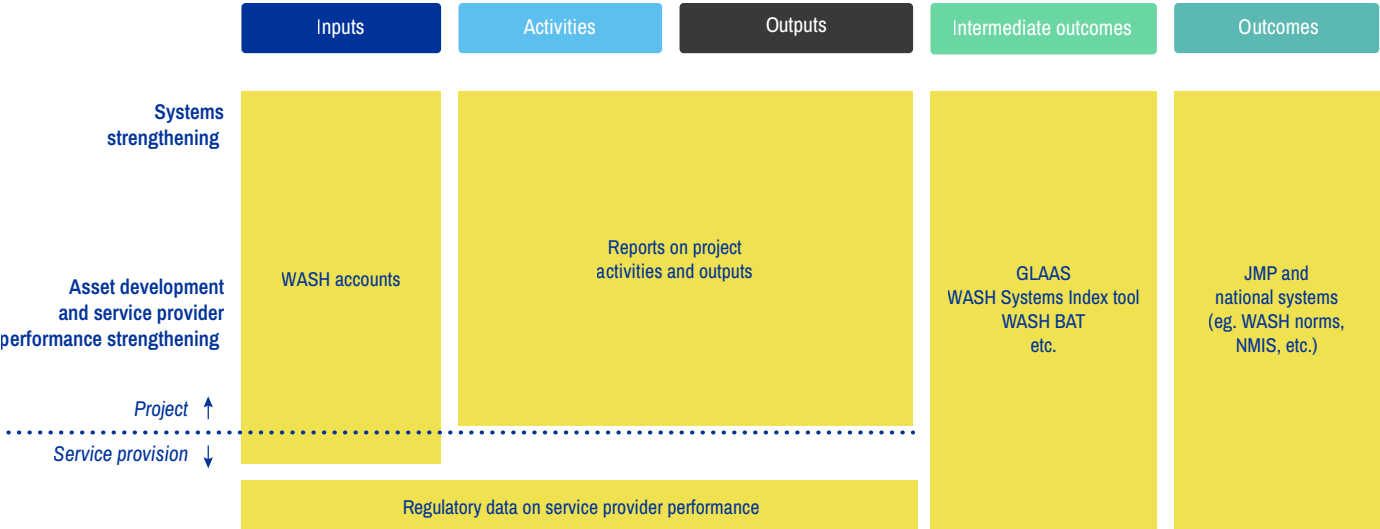
- Number of direct beneficiaries of water infrastructure interventions in two focus 'unions' (local administrative units in Bangladesh) and sanitation infrastructure interventions in two municipalities in Bangladesh.
- Improvement in Shit Flow Diagram in two focus municipalities in Bangladesh and in Western Area Urban (Freetown) in Sierra Leone.
- Improvement in number of people with access to improved rural WASH services at local level:
 - Number of people with improved access to rural water services in
 - Two focus LGAs in Nigeria,
 - Two focus districts in Malawi
 - Three focus districts in Tanzania.
 - Number of people with improved access to rural sanitation services in
 - Two focus LGAs and beyond in Nigeria,
 - Two focus districts in Malawi
 - Three focus districts in Tanzania.
- Improvement in number of healthcare facilities with improved WASH services and the number of people they serve (number of people in service area of healthcare facilities) in five focus districts in Sierra Leone and two focus districts in Tanzania.

However, due to the premature closure of the project, monitoring and reporting on these service level outcomes have been limited under the WASH Systems for Health project.

3.6 From project to country-led monitoring along the results chain

Countries generally have different systems in place to assess and monitor specific parts of the WASH service results chain. These include national financial systems and/or WASH accounts for monitoring inputs, country-led monitoring systems for monitoring outputs and JMP and country-led systems, based on household surveys and /or asset data for monitoring service levels. Systems for assessing and monitoring systems strength are not commonly in place. Systems strength data is collected under the GLAAS initiatives in 105 countries and territories (in the 2024/25 round) (WHO and UNICEF, 2026). Also, tools and processes for assessing and monitoring WASH systems strength have been introduced, as presented in Section 2.4.2 and 3.3, but institutionalisation of these has been limited. Figure 8 presents an overview of the different monitoring tools along the results chain.

Figure 8: Monitoring tools along the results chain.



Over the course of the WASH Systems for Health project, the intention had been that involvement of key sector stakeholders in project monitoring, especially the WASH Systems Index tool assessment, would have resulted in the following outcomes related to country-led monitoring:

1. National and local governments and its partners **undertake WASH systems strength assessments**, or compile existing data and information on WASH systems strength on a regular basis;
2. National and local governments and its partners **combine and link these data along the results chain**, including data on financial inputs in the sector (e.g. through WASH accounts), on project and programme activities and outputs in the sector and on outcomes, in terms of WASH services for people and institutions and;
3. National and local governments and its partners **use these data** to reflect on progress, inform decisions going forward and ensure accountability.

As mentioned in Section 3.3, before its untimely closure, the WASH Systems for Health project had shown that involvement of sector stakeholders in WASH Systems Index tool assessments had ensured ownership of the assessment results. Institutionalisation of the tool and uptake of its use by governments and its partners had not taken place yet. Doing a systems strength assessment to inform sectoral reflection, decision-making and accountability would be most useful if

it was linked directly to sectoral reflection processes, such as the Joint Sector Reviews. The inclusion of the WASH Systems Index tool in the 2026 Joint Sector Review process was underway in Tanzania. Unfortunately, this had to be abandoned due to the closure of the project.

The application of tools for assessing WASH systems strength, such as the WASH Systems Index tool, requires considerable time and resources. When used to inform sector reflection, decision-making and accountability, it may therefore be more appropriate to apply such tools not on annual basis, but biennially or every three to five years, depending on the pace of sector development.

Before closure of the project, the extent to which IPs had encouraged, stimulated and facilitated governments and its partners to regularly bring together data along the results chain, e.g. in line with Joint Sector Review processes, had been limited. Bringing such data together is expected to provide the sector with a systemic overview of its strength and progress, thereby strengthening sector reflection, decision-making and accountability.

accountability.

3.7 Lessons learnt and reflections

Reflections and lessons learnt from the WASH Systems for Health approach on monitoring WASH systems strengthening include:

- The combination of setting a clear results chain and results framework, with regular monitoring and reporting on progress and annual sectoral assessments on systems strength, informed project-level decision-making and adaptive management.
- Monitoring of WASH systems interventions by development partners requires trust from government and other sector stakeholders. It also relies on development partners having sufficient convening power to bring sector stakeholders together, as well as the capacity and authority to facilitate discussions.
- Outcome harvesting can play an important role in getting insight into how project activities contributed to bringing about systems strengthening and change (and the interdependencies or linkages of building blocks).
- Monitoring service levels in contexts where systems for service-level monitoring are weak is a challenge. Ideally, service levels should be monitored in a specific area where the WASH systems strengthening interventions take place. However, monitoring systems, such as JMP and household-survey based assessments by statistical agencies, are often not representative at the local level.
- Monitoring WASH systems interventions takes time, money and effort. The application of the WASH Systems Index tool involves bringing a considerable group of stakeholders together to 1) do the assessment and 2) validate the assessment. Also, data and information on outcomes in terms of changes in WASH services are time and resource consuming to collect and therefore often scarce, especially at local level.
- Where strong sector reflection and planning processes are in place, WASH systems monitoring has the potential to inform these processes, contributing to stronger, evidence-based sectoral decision-making and accountability. Where these processes are weak or not in place, project monitoring is more likely to only inform project decision-making, adaptation and

4. Conclusion and recommendations for the way forward

This section answers the three learning questions posed in Section 1.

What trends can be observed in how projects in the water and sanitation sector are monitored?

Project monitoring in the WASH sector has evolved considerably over the past decades. Monitoring approaches have moved away from linear, output-focused frameworks towards more complex, adaptive approaches that better capture the realities of systems change. While log frames remain widely used for accountability reporting to financiers, they are increasingly complemented by theories of change, results frameworks and outcome harvesting methodologies that acknowledge complexity, unpredictability and the multi-actor nature of WASH interventions. Alongside this, there has been a clear shift in what is being monitored: from counting infrastructure outputs towards tracking service-level outcomes and more recently towards assessing the strength of the systems that underpin sustainable service delivery. Global and country-led monitoring systems, including JMP and GLAAS, have reflected this evolution, while initiatives such as Align to Accelerate signal a growing consensus around common frameworks for tracking WASH systems strength. Nevertheless, persistent tensions remain between project monitoring — often well-resourced but externally driven — and country-led monitoring systems, which are frequently under-resourced yet fundamental to sustainable sector governance.

How can systems strengthening and systems interventions be monitored?

The WASH Systems for Health project illustrates that effective monitoring of systems strengthening interventions requires a layered approach that tracks progress across the full results chain: from inputs and activities, through outputs and intermediate outcomes related to systems change, to ultimate outcomes in terms of improved services for people. Key elements of such an approach include a clear results framework grounded in a theory of change; narrative output milestones that allow adaptive management; participatory systems strength assessments, such as the WASH Systems Index tool, conducted with government and sector stakeholders; and outcome harvesting to capture intended and unintended behavioural changes among sector actors. Each of these elements serves a distinct purpose — tracking what the

project does, how systems are changing and whether people are ultimately better served — and they are most powerful in combination. However, monitoring systems intervention is inherently demanding: it requires stakeholder trust and convening capacity, sustained investment of time and resources and access to service-level data that is often unavailable at the local level where interventions take place. Where strong national sector coordination and reflection processes exist, project monitoring has the potential to feed into and strengthen these, contributing to broader sectoral accountability and evidence-based decision-making.

What is the way forward for systems monitoring?

Based on the experiences described in this learning paper, systems strengthening projects are recommended to develop clear results frameworks for planning and monitoring systems interventions. Different tools could and should be applied to monitor progress on the different results chain elements. These include traditional input, activity and output tracking tools, but also outcome harvesting and systems strength assessment tools (like the WASH Systems for Health WASH Systems Index tool). Data along the results chain need to be compiled and analysed on a regular basis, providing insight into how progress on different results chain elements contributes to each other. These insights should be used to inform planning, adaptation and decision-making going forward and should be reported for accountability.

This is not only relevant for development partner projects, but also for sectoral systems processes, with compilation and reflection on monitoring data on progress along the results chain on a regular basis, e.g. through annual Joint Sector Review processes, which inform sector planning processes.

Going forward, WASH systems projects (and country-based monitoring) could and probably should, align their monitoring indicators along the results chain as much as possible to the harmonised indicators of Align to Accelerate. However, this does not mean that projects would be restricted to only monitoring progress on these indicators.

As also illustrated by the premature closure of the WASH Systems for Health project, there is a general trend of decreasing foreign aid for the WASH sector (and beyond). With this development and with increasing human resources and financial capacities in the Global South, WASH projects fund-

ed and implemented by development partners may over time decrease in importance and prevalence. Infrastructural and systems strengthening projects are expected to increasingly be initiated and managed by national and local governments. In order to ensure adaptive management and accountability of these projects, monitoring along the project results chain, through tools and processes presented in this paper, will remain relevant. In the meanwhile, going forward, WASH systems strengthening projects undertaken by development partners have a responsibility to ensure that national and local monitoring systems and capacities are strengthened.

5. References

- Binnendijk, A. (2001) Results Based Management in the Development Co-operation Agencies: A Review of Experience, Background report. DAC Working Party on Aid Evaluation, p. 158. Available at: <http://www.oecd.org/development/evaluation/1886527.pdf> (Accessed: April 28, 2016).
- Carter, N. (1998) "Performance Indicators: 'back-seat driving' or 'hands off' control?," Policy & Politics, 17(2), pp. 131–138. Available at: <https://doi.org/10.1332/030557389782454857>.
- Danert, K. (2015) "Messy, varied and growing: country-led monitoring of rural water supplies," in T. Schouten and S. Smits (eds.) From Infrastructure to Services. The Schumacher Centre, Bourton on Dunsmore, Rugby, Warwickshire CV23 9QZ, UK.; Practical Action Publishing Ltd, pp. 39–61. Available at: <https://www.ircwash.org/resources/messy-varied-and-growing-country-led-monitoring-rural-water-supplies> (Accessed: February 3, 2016).
- ePact (2020) "Setting and monitoring outcome targets in WASH programmes."
- Freer, G. and Lemire, S. (2019) "Can't See the Wood for the Logframe: Integrating Logframes and Theories of Change in Development Evaluation," Canadian Journal of Program Evaluation, 33(3), pp. 336–353. Available at: <https://doi.org/10.3138/cjpe.53007>.
- Hailey, J. and Sorgenfrei, M. (2004a) Measuring success: issues in performance measurement. Oxford: INTRAC.
- Hailey, J. and Sorgenfrei, M. (2004b) Measuring success: issues in performance measurement. Occasional Paper 44. Oxford: INTRAC.
- Hinds, R. and Nhaurire, A. (no date) Monitoring and sustaining services – lessons learned from WaterAid's post-implementation monitoring surveys and the use of information and communications technology. London: WaterAid. Available at: http://www.rural-water-supply.net/_resources/documents/default/1-724-34-1453300186.pdf.
- Huston, A. and Moriarty, P. (2018) "Understanding the WASH system and its building blocks," Understanding the WASH system and its building blocks [Preprint].
- Hutchings, P., Smits, S. and Adank, M. (2026) "Systems interventions for the transition from basic to safely managed water and sanitation services." The Hague: IRC. Available at: <https://doi.org/10.17037/PUBS.04682163>.
- IRC, 2026. WASH Systems Index Tool. The Hague, IRC. Available at: <https://www.ircwash.org/resources/wash-systems-index-tool>
- Jiménez, A. et al. (2017) "Sustainability in Practice: Experiences from Rural Water and Sanitation Services in West Africa," Sustainability, 9(3), p. 403. Available at: <https://doi.org/10.3390/su9030403>.
- Kusek, J.Z. and Rist, R.C. (2004) Ten steps to a results-based monitoring and evaluation system: a handbook for development practitioners. World Bank Publications.
- Kuster, C. and Batjes, K. (2017) Managing for sustainable development impact: an integrated approach to planning, monitoring and evaluation. SL: PRACTICAL ACTION PUB.
- Lockwood, H. (2015) "Transforming accountability and project monitoring for stronger national WASH sectors," in T. Schouten and S. Smits, From Infrastructure to Services: Trends in monitoring sustainable water, sanitation and hygiene services. Rugby, UK: Practical Action Publishing Ltd.
- McGinnes, S. and Elandy, K.M. (2012) "Unintended Behavioural Consequences of Publishing Performance Data: Is More Always Better?," The Journal of Community Informatics, 8(2). Available at: <https://openjournals.uwaterloo.ca/index.php/JoCI/article/view/3041/3945>.
- Mooijman, A. et al. (2023) "Netherlands WASH SDG programme, Evaluation Report." Ede, the Netherlands: MDF.
- OECD (ed.) (2023) Glossary of Key Terms in Evaluation and Results-based Management for Sustainable Development (Second Edition). Paris: OECD Publishing. Available at: <https://doi.org/10.1787/632da462-en-fr-es>.
- Ohemeng, F.L.K. (2005) "Getting the state right: think tanks and the dissemination of New Public Management ideas in Ghana," The Journal of Modern African Studies, 43(3), pp. 443–465. Available at: <https://doi.org/10.1017/S0022278X05001047>.
- Roberts, D. and Khattri, N. (2012) "Designing a results framework for achieving results," World Bank Publications-Books [Preprint].
- Shordt, K. (2000) Action monitoring for effectiveness: improving water, hygiene and environmental sanitation programmes. Delft, the Netherlands: IRC International Water and Sanitation Centre.

- Stern, E. et al. (2012) "Broadening the range of designs and methods for impact evaluations." Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/67427/design-method-impact-eval.pdf#:~:text=Report%20of%20a%20study%20commissioned%20by%20the%20Department
- Thiel, S. (Sandra) van and Leeuw, F.L. (2002) "The Performance Paradox in the Public Sector." Available at: Item Resolution URL <http://repub.eur.nl/pub/1577>.
- Toffolon-Weiss, M.M., Bertrand, J.T. and Terrell, S.S. (1999) "The results framework--an innovative tool for program planning and evaluation." Evaluation review, 23(3), pp. 336–59. Available at: <https://doi.org/10.1177/0193841X9902300305>.
- UNICEF, IRC and Akvo (2016) "Organizing framework for functional national WASH monitoring and evaluation systems." Available at: https://www.ircwash.org/sites/default/files/20160714_organizing_framework.pdf (Accessed: June 5, 2024).
- Verhoeven, J., Uijtewaal, E. and Schouten, T. (2015) "Experiences with sustainability instruments: clauses, checks and compacts for ensuring WASH services." The Hague, The Netherlands: IRC International Water and Sanitation Centre. Available at: https://www.ircwash.org/sites/default/files/experiences_with_sustainability_instruments_final_report_2015.pdf (Accessed: March 4, 2026).
- WHO and UNICEF (2025) "Align to Accelerate discussion paper: towards a set of core indicators and common monitoring and review framework." World Health Organization and United-Nations Children's Fund. Available at: <https://www.who.int/publications/m/item/align-to-accelerate-discussion-paper--towards-a-set-of-core-indicators-and-common-monitoring-and-review-framework> (Accessed: November 5, 2026).
- Wilson-Grau, R. and Britt, H. (2012) "Outcome harvesting." Cairo: Ford Foundation [Preprint].
- World Health Organisation (WHO) and United Nations Children's Fund (UNICEF) (2026) "State of systems for drinking-water, sanitation and hygiene: global update 2025." World Health Organization and the United Nations Children's Fund (UNICEF). Available at: <https://iris.who.int/server/api/core/bitstreams/83d75861-6c96-4083-b163-8accb9c711cc/content>.

6. Annexes

6.1 Annex 1

National water

Building block	Code	Description
Climate	Index Indicator 1	Index Indicator climate: WASH services are able to be delivered to populations and adapt when needed, during and after experiences of climate-induced hazards; and in turn, enable resilience among populations to the effects of climate change.
Capacity	Index Indicator 2	Index Indicator Capacity: The service authority (e.g. ministry), service providers and regulator have capacity to plan and implement service system improvements based on data (indexed Index Indicator)
GESI	Index Indicator 3	Index Indicator GESI: The vulnerable households/groups /communities/people with disabilities are identified and acknowledged for support by government to ensure safe and sustainable services and services are specifically adapted and sustainable extended to meet the needs of these populations.
Finance \$	1	Overall finance
	1.1	For each of the cost categories (capital expenditure, capital maintenance, operational expenditure, direct support and indirect support), the main sources of funding (and finance) and funding flows are defined.
	1.2	There is a comprehensive (quantitative) assessment of the finance gap
	1.3	There is a comprehensive national finance strategy, detailing the various strategies to reduce any funding gap.
	1.4	There are financial considerations and nationally defined mechanisms (like subsidies) for households from marginalised communities, including people with disabilities and gender-responsive, inclusive budgeting. Specific budgets are available to target these groups and the effectiveness of these subsidies/mechanisms is regularly reviewed. (Please indicate which marginalised groups are covered in the notes/ justification of scores (e.g. remote, rural, IDP/refugee, PWDs, older adults, women and girls instead)).
	1.5	There is a comprehensive assessment of the cost and funding gaps of climate adaptation in the water service sector under different scenarios, e.g. considering prolonged droughts or more frequent floods.
Infrastructure development 	2	Overall infrastructure development
	2.1	The project delivery models and procurement procedures for capital investments projects are clearly articulated in government-sanctioned implementation manuals. These are sufficiently differentiated for different segments of the population and articulated with the service delivery models.
	2.2	There are mechanisms and capacity in place to ensure due diligence, regulation and control over procurement and these mechanisms are being used in practice by national stakeholders.
	2.3	The guidelines/manuals provide designs suitable for women (including pregnant women), elderly, people with disabilities, adolescent girls and children.
	2.4	Water service delivery infrastructure development are based on locally-led risk analysis that addresses climate change factors and these mechanisms minimise population exposure to potential failure arising from climatic hazards in different contexts.
Infrastructure management 	3	Overall infrastructure management
	3.1	Asset ownership is clearly defined in laws and regulation.
	3.2	A up-to-date inventory (state or national level) exists of all (or most) public infrastructure assets, including age and current physical state of assets.
	3.3	Asset management is operationalised through standard tools, guidelines and trainings.
	3.4	National level support to service authorities, so these can ensure that technical and/or financial support is available to service providers.

Institutions 	4	Overall institutions building block
	4.1	All key water related functions (policy development, infrastructure development, service delivery, service authority, regulation, monitoring and oversight, financing, water resources management, etc) are clearly assigned to specific institutions, without unfulfilled functions or unhelpful duplications.
	4.2	The assigned functions and mandates of the institutions are well-understood by the different stakeholders at both national and decentralised levels. This includes institutional clarity for water supply in health care facilities, schools, public places and households.
	4.3	Adequate and functional relationships and coordination mechanisms exist: 1) among national level sector-related institutions, 2) between national and decentralised institutions, 3) with institutions of related sectors such as health, education, gender mainstreaming
	4.4	Staffing requirements for national (ministries, departments, national utilities, regulator) and decentralised (districts, communities, service providers) bodies are clearly defined in both a quantitative (number of staff) and qualitative (profiles and skills including GESI) sense. These are adequate to fulfil all functions and all positions are filled.
	4.5	There are adequate national institutions, platforms and mechanisms for capacity building related to all aspects (building blocks, including sanitation and hygiene promotion, construction of sanitation and hygiene facilities, financing, regulation etc) for all relevant water service delivery models (e.g. community managed handpumps, utility-managed piped schemes etc). National stakeholders have access to and make use of these for continuous capacity improvement.
	4.6	At least one third of the staffing of national bodies include women and/or people from marginalized communities/with disabilities. Women and people from marginalised communities are part of decision making positions/platforms.
	4.7	The institutional roles and responsibilities for climate resilient water supply are clearly defined (for example between actors in the WASH, environment and climate change sectors).
	4.8	An inter-ministerial/inter-departmental coordination mechanism exists between departments responsible for climate change, environment, agriculture, energy, water resources and those responsible for water supply.
Learning and adaptation  	5	Overall learning and adaptation
	5.1	There are institutionalised learning platforms and/or mechanisms at sector level (joint sector reviews, donor platforms, donor-government platforms, national learning alliance, thematic working groups, resource centres and sector web sites).
	5.2	The national learning platforms are linked to the decentralised level.
	5.3	The reflections from these platforms are documented and shared and these are systematically taken up in policies, strategies and practice.
	5.4	The institutions working on water supply are actively discussing, learning and strategising about how to address issues of communities and people that are left behind to ensure water service delivery to all.
	5.5	The platforms are sufficiently representative of the different sector stakeholders, including representatives of groups/organisations working on rights of women, people with disabilities and marginalised communities.
	5.6	The institutions working on water supply are actively discussing, learning and strategising about how to integrate climate change risk reduction into water service delivery.
Monitoring 	6	Overall monitoring
	6.1	There is a national monitoring framework (the different sectoral monitoring systems speak to each other, in particular to the National Bureau of Statistics). It covers service delivery in different contexts and links to (or is complemented by) the health and education monitoring information systems.
	6.2	The data from the monitoring system are analysed and used at sector level, e.g. for macro-level planning, trends analysis, policy making.
	6.3	The monitoring systems include both service delivery indicators (service level, service provider performance, service authority performance) and upstream systems strengthen (or sector performance) indicators.
	6.4	The monitoring systems actively cover the entire country (all districts, all communities, all service providers).
	6.5	The data in the national monitoring system are regularly updated.
	6.6	The monitoring system captures disaggregated data, capturing households from marginalised communities, people with disabilities.
	6.7	There is monitoring and documentation of priority climate hazards to water resources and water infrastructure. There is a link between disaster reporting and climate adaptation planning.

Planning 	7	Overall planning
	7.1	National planning mechanisms exist and they are based on a vision for reaching the water service targets (national or SDG) and a realistic understanding of costs and budgets. These mechanisms support coordinated planning among sector stakeholders (gov't, utilities, donors, etc)
	7.2	The national plans take into account in-country differences (geography; demography; water resources), recognising the different SDMs.
	7.3	The national plan reflects and takes into consideration the planning done at decentralised level and vice versa.
	7.4	National plans and planning mechanisms include specification for gender-inclusion and/or reaching marginalised groups.
Policy and Legislation 	7.5	The plans incorporate an analysis of climate change risk and vulnerability.
	8	Overall policy and legislation
	8.1	A legal framework for the sector is in place.
	8.2	National guidelines for development and management of services are in place.
	8.3	National Sector Policy and Strategy is in place.
	8.4	Norms and standards for quality of works and service delivery are in place.
Regulation and accountability 	8.5	The legislation and policies acknowledge those left behind (based on gender, disabilities, socially or economically marginalised, etc.) and have provisions to ensure everyone is covered with WASH services
	8.6	There is a strategic framework in which environmental and climate change adaptation policies and strategies (including National Adaptation Plans (NAPs) and Nationally Determined Contributions (NDCs)) are aligned with those of WASH and vice versa.
	9	Overall regulation and accountability
	9.1	The entity equipped with regulatory functions sets (1) tariff regulations and provide tariff calculation guidelines, (2) service performance regulation standards and guidelines (e.g. for NRW, operational cost recovery rate, continuity etc), (3) rules that protect consumers , (4) water quality regulation guidelines, (5) environmental regulation guidelines.
	9.2	There is a regulatory entity for the services or regulatory functions delegated to sub-national institutions (e.g. through contracts). This may be an independent regulator or a dedicated function within the Ministry.
	9.3	The entity equipped with regulatory functions uses data (monitoring data, audits and score cards) to guide performance management and apply effective enforcement (incentives and penalties) in the five areas of regulation mentioned in the previous statement.
Water Resource management 	9.4	The regulator ensures that the service provider is providing services to all (including women headed households, people with disabilities).
	9.5	There are governmental mechanisms to monitor progress towards climate change adaptation national targets and there are publicly available commitments made at the international level that relate to water (e.g. NDCs; NAP).
	10	Overall water resource management
	10.1	There is legislation and/or policy in place that clearly defines priorities and processes relating to water resources allocation, regulation and water rights.
	10.2	There are national water resource management institutions in place and able to undertake their mandated functions for water resource management as it pertains to potable water supply (catchment authorities and river basin authorities).
	10.3	There is national guidance in place for mechanisms or platforms that allow representation of water service authorities and/or service providers in water resource management bodies.
	10.4	There is national guidance on inclusion of relevant groups in these mechanisms or platforms, to ensure their needs are considered . For example women's groups, farmers, communities marginalised, people with disabilities who are dependent on water for domestic and livelihood purposes, etc.
	10.5	Climate data and national projections have been used to conduct a risk assessment (with local actors leading the process) that considers different climate hazards, the level of exposure of infrastructure and population, as well as vulnerabilities of the water sector (e.g. vulnerability mapping) in relation to climate change and to prioritise interventions.

National sanitation and hygiene

Building block	Code	Description
Climate	Index Indicator 1	Index Indicator climate: WASH services are able to be delivered to populations and adapt when needed, during and after experiences of climate-induced hazards; and in turn, enable resilience among populations to the effects of climate change.
Capacity	Index Indicator 2	Index Indicator Capacity: The service authority (e.g. ministry), service providers and regulator have capacity to plan and implement service system improvements based on data (indexed Index Indicator)
GESI	Index Indicator 3	Index Indicator GESI: The vulnerable households/groups /communities/people with disabilities are identified and acknowledged for support by government to ensure safe and sustainable services and services are specifically adapted and sustainable extended to meet the needs of these populations.
Finance \$	1	Overall finance
	1.1	For each of the cost categories (capital expenditure (hardware and software, including CLTS triggering and other activities aimed towards stimulating procurement of sanitation and hygiene assets / facilities / products), capital maintenance, operational expenditure, direct support (including hygiene promotion activities, monitoring etc) and indirect support), the main sources of funding (and finance) and funding flows are defined.
	1.2	There is a comprehensive assessment of the finance gap
	1.3	There is a comprehensive national finance strategy, detailing the various strategies to reduce any funding gap.
	1.4	There are financial considerations and nationally defined mechanisms (like subsidies) for households from marginalised communities, including people with disabilities and gender-responsive, inclusive budgeting. Specific budgets are available to target these groups and the effectiveness of these subsidies/mechanisms is regularly reviewed. (Please indicate which marginalised groups are covered in the notes/justification of scores (e.g. remote, rural, IDP/refugee, PWDs, older adults, women and girls instead)).
	1.5	There is a comprehensive assessment of the cost and funding gaps of climate adaptation in the sanitation and hygiene sector under different scenarios, e.g. considering prolonged droughts or more frequent floods.
Infrastructure development 	2	Overall infrastructure development
	2.1	The project delivery models and procurement procedures for capital investments projects are clearly articulated in government-sanctioned implementation manuals. These include models and approaches for raising demand (e.g. triggering through CLTS approaches) and supply (e.g. through market-based approaches) for development of sanitation and handwashing facilities, as well as for faecal sludge management facilities. These are sufficiently differentiated for different segments of the population and articulated with the service delivery models.
	2.2	There are mechanisms and capacity in place to ensure due diligence, regulation and control over procurement and these mechanisms are being used in practice by national stakeholders.
	2.3	The guidelines/manuals provide designs for handwashing facilities and toilets that can provide safely managed services suitable for women (including pregnant women and taking menstrual hygiene management into account), elderly, people with disabilities, adolescent girls and children.
	2.4	Sanitation service delivery infrastructure development are based on locally-led risk analysis that addresses climate change factors and these mechanisms minimise population exposure to potential failure arising from climatic hazards in different contexts.
Infrastructure management 	3	Overall infrastructure management
	3.1	A (state or national level) inventory exists of all (or most) FSM facilities and wastewater treatment facilities, including age and current physical state of assets, as well as key criteria of their accessibility for people with disabilities and older adults.
	3.2	Asset ownership is clearly defined in laws and regulation, particularly for facilities built using subsidies and for those installed by private sector on behalf of communities and households.
	3.3	Asset management , including for FSM assets, is operationalised through standard tools, guidelines and trainings. Households have a good understanding of the maintenance requirements and design life for sanitary facilities.

Institutions 	4	Overall Institutions building block
	4.1	All key sanitation related functions (policy development, sanitation and hygiene promotion, FSM service delivery, regulation, monitoring and oversight, financing, water resources management, etc) are clearly assigned to specific institutions, without unfulfilled functions or unhelpful duplications (e.g. between Ministry of Health and Ministry of WASH).
	4.2	The assigned functions and mandates of the institutions are well-understood by the different stakeholders at both national and decentralised levels. This includes institutional clarity for sanitation and hygiene in health care facilities, schools, public places and households.
	4.3	Adequate and functional relationships and coordination mechanisms exist: 1) among national level sector-related institutions, 2) between national and decentralised institutions, 3) with institutions of related sectors such as health, education, gender and inclusion mainstreaming
	4.4	Staffing requirements for national (ministries, departments, national utilities, regulator) and decentralised (districts, communities, service providers) bodies are clearly defined in both a quantitative (number of staff) and qualitative (profiles and skills including GESI) sense. These are adequate to fulfil all functions and all positions are filled.
	4.5	There are adequate national institutions, platforms and mechanisms for capacity building related to all aspects (e.g. market systems capacity, demand promotion, financing, regulation, etc) of all relevant sanitation and hygiene service delivery models (e.g. households managed latrines with onsite treatment, latrines with FSM, utility-or municipal-managed sewerage etc). National stakeholders have access to and make use of these for continuous capacity improvement.
	4.6	At least one third of the staffing of national bodies include women and/or people from marginalised communities/with disabilities. Women and people from marginalised communities are part of decision making positions/platforms.
	4.7	The institutional roles and responsibilities for climate resilient sanitation and handwashing are clearly defined (for example between actors in the WASH, environment and climate change sectors).
	4.8	An inter-ministerial/inter-departmental coordination mechanism exists between departments responsible for climate change, environment, agriculture, energy, water resources and those responsible for sanitation and hygiene.
Learning and adaptation 	5	Overall learning and adaptation
	5.1	There are institutionalised learning platforms and/or mechanisms at sector level (joint sector reviews, donor platforms, donor-government platforms, national learning alliance, thematic working groups, resource centres and sector web sites).
	5.2	The national learning platforms are linked to the decentralised level.
	5.3	The reflections from these platforms are documented and shared and these are systematically taken up in policies, strategies and practice.
	5.4	The institutions working on sanitation and hygiene are actively discussing, learning and strategising about how to address issues of communities and people that are left behind to ensure sanitation and hygiene service delivery to all.
	5.5	The platforms are sufficiently representative of the different sector stakeholders, including representatives of groups/organisations working on rights of women, people with disabilities and marginalised communities.
	5.6	The institutions working on sanitation and hygiene are actively discussing, learning and strategising about how to integrate climate change risk reduction into sanitation and hygiene service delivery.

Monitoring 	6	Overall monitoring
	6.1	There is a national monitoring framework (the different sectoral monitoring systems speak to each other, in particular to the National Bureau of Statistics). It covers service delivery in different contexts and links to (or is complemented by) the health and education monitoring information systems.
	6.2	The data from the monitoring system are analysed and used at sector level, e.g. for macro-level planning, trends analysis, policy making.
	6.3	The monitoring systems include both sanitation and hygiene service delivery indicators (service level (including coverage of sanitation service levels, hygiene behaviour and practices and ODF communities, where relevant), service provider performance (including on hygiene promotion activities, FSM, etc), service authority performance) and upstream systems strengthen (or sector performance) indicators.
	6.4	The monitoring systems actively cover the entire country (all districts, all communities, all service providers).
	6.5	The data in the national monitoring system are regularly updated.
	6.6	The monitoring system captures disaggregated data, capturing households from marginalised communities, people with disabilities.
	6.7	There is monitoring and documentation of priority climate hazards to sanitation and hygiene infrastructure and sanitation-related water resource issues. There is a link between disaster reporting and climate adaptation planning.
Planning 	7	Overall planning
	7.1	National planning mechanisms exist and they are based on a vision for reaching the sanitation and hygiene targets (national or SDG) and a realistic understanding of costs and budgets. These mechanisms support coordinated planning among sector stakeholders (gov't, utilities, donors, etc)
	7.2	The national plans take into account in-country differences (geography; demography; water resources), recognising the different SDMs.
	7.3	The national plan reflects and takes into consideration the planning done at decentralised level and vice versa.
	7.4	National plans and planning mechanisms include specification for gender-inclusion, including menstrual hygiene management and reaching marginalised groups.
	7.5	The plans incorporate an analysis of climate change risk and vulnerability.
Policy and Legislation 	8	Overall policy and legislation
	8.1	A legal framework for the sector is in place.
	8.2	National guidelines for development and management of services are in place.
	8.3	National Sector Policy and Strategy is in place.
	8.4	Norms and standards for quality of works and service delivery throughout the sanitation chain are in place.
	8.5	The legislation and policies acknowledge those left behind (based on gender, disabilities, socially or economically marginalised, etc.) and have provisions to ensure everyone is covered with WASH services
	8.6	There is a strategic framework in which environmental and climate change adaptation policies and strategies (including National Adaptation Plans (NAPs) and Nationally Determined Contributions (NDCs)) are aligned with those of WASH and vice versa.

Regulation and accountability 	9	Overall regulation and accountability
	9.1	The entity equipped with regulatory functions sets (1) tariff regulations and provide tariff calculation guidelines (e.g. for public latrines and FSM services), (2) service performance regulation standards and guidelines (e.g. for latrine artisans, FSM service providers), (3) rules that protect consumers, (4) environmental regulation guidelines (related to open defecation, FS disposal, environmental pollution etc).
	9.2	There is a regulatory entity for the services or regulatory functions delegated to sub-national institutions (e.g. through contracts). This may be an independent regulator or a dedicated function within the Ministry.
	9.3	The entity equipped with regulatory functions uses data (monitoring data, audits and score cards) to guide performance management and apply effective enforcement (incentives and penalties) in the four areas of regulation mentioned in the previous statement.
	9.4	The regulator ensures that service providers provide services to all (including women headed households, people with disabilities).
	9.5	There are governmental mechanisms to monitor progress towards climate change adaptation national targets and there are publicly available commitments made at the international level that relate sanitation (e.g. NDCs; NAP).
Water Resource management 	10	Overall water resource management
	10.1	There is legislation and/or policy in place that clearly defines priorities and processes relating to water resources and effluent water quality management and regulation.
	10.2	There are national water resource management institutions in place and able to undertake their mandated functions for water resource management as it pertains to sanitation (catchment authorities and river basin authorities).
	10.3	There is national guidance in place for mechanisms or platforms that allow representation of sanitation service authorities and/or service providers in water resource management bodies.
	10.4	There is national guidance on inclusion of relevant groups in these mechanisms or platforms, to ensure their needs are considered. For example women's groups, farmers, communities marginalised, people with disabilities who are dependent on water for domestic and livelihood purposes, etc.
	10.5	Climate data and national (and local) projections have been used to conduct a risk assessment (with local actors leading the process) that considers different climate hazards, the level of exposure of infrastructure and population, as well as vulnerabilities of the sanitation sector (e.g. vulnerability mapping) in relation to climate change and to prioritise interventions.

National WASH in healthcare facilities

Building block	Code	Description
Climate	Index Indicator 1	
Capacity	Index Indicator 2	Index Indicator Capacity: The service authority (e.g. ministry), service providers and regulator have capacity to plan and implement service system improvements based on data (indexed Index Indicator)
GESI	Index Indicator 3	Index Indicator GESI: The vulnerable households/groups /communities/people with disabilities are identified and acknowledged for support by government to ensure safe and sustainable services and services are specifically adapted and sustainable extended to meet the needs of these populations.
\$ Finance	1	Overall finance
	1.1	For each of the cost categories (capital expenditure, capital maintenance, operational expenditure, direct support and indirect support), the main sources of funding (and finance) and funding flows are defined.
	1.2	There is a comprehensive assessment of the finance gap
	1.3	There is a comprehensive national finance strategy, detailing the various strategies to reduce any funding gap, either fully incorporated into the health sector budget and finance strategy, or in the WASH sector budget and finance strategy.
 Infrastructure development	2	Overall infrastructure development
	2.1	The project delivery models and procurement procedures for capital investments projects are clearly articulated in government-sanctioned implementation manuals. These are sufficiently differentiated for different types of healthcare facilities.
	2.2	There are mechanisms and capacity in place to ensure due diligence, regulation and control over procurement and these mechanisms are being used in practice by national stakeholders.
	2.3	The guidelines/manuals provide designs suitable for women (including pregnant women), elderly, people with disabilities, adolescent girls and children and in-patients with specific needs.
 Infrastructure management	2.4	Water, sanitation and hygiene service delivery infrastructure development are based on locally-led risk analysis that addresses climate change factors and these mechanisms minimise population exposure to potential failure arising from climatic hazards in different contexts.
	3	Overall infrastructure management
	3.1	Asset ownership of healthcare facilities WASH assets is clearly defined in laws and regulation. Roles and responsibilities related to O&M and asset management of healthcare facilities WASH assets (e.g. between Ministry of Health and WASH-related ministry/ies) have been clearly defined.
	3.2	A up-to-date inventory (state or national level) exists of all (or most) healthcare facility WASH assets, including age and current physical state of assets. The entity(ies) responsible for asset management have access to the asset data.
	3.3	Asset management is operationalised through standard tools, guidelines and trainings.

Institutions 	4	Overall Institutions building block
	4.1	All key healthcare facilities WASH related functions (policy development, infrastructure development, service delivery, service authority, regulation, monitoring and oversight, financing, water resources management, etc) are clearly assigned to specific institutions, without unfulfilled functions or unhelpful duplications.
	4.2	The assigned functions and mandates of the institutions are well-understood by the different stakeholders at both national and decentralised levels.
	4.3	Adequate and functional relationships and coordination mechanisms exist: 1) among national level sector-related institutions, 2) between national and decentralised institutions, 3) with water and sanitation service providers and authorities, 4) with health providers, health managers and infection, prevention and control divisions of healthcare facilities
	4.4	Staffing requirements for national (ministries, departments) and decentralised (districts, communities, healthcare facility staff involved in WASH) bodies are clearly defined in both a quantitative (number of staff) and qualitative (profiles and skills including GESI) sense. These are adequate to fulfil all functions and all positions are filled.
	4.5	There are adequate national institutions, platforms and mechanisms for capacity building related to all aspects (building blocks, including sanitation and hygiene promotion, construction of water, sanitation and hygiene facilities, financing, regulation etc) for healthcare facility WASH. National healthcare facility WASH stakeholders have access to and make use of these for continuous capacity improvement.
	4.6	At least one third of the staffing of national bodies include women and/or people from marginalised communities/with disabilities. Women and people from marginalised communities are part of decision making positions/platforms.
	4.7	An inter-ministerial/inter-departmental coordination mechanism exists between departments responsible for climate change, environment, agriculture, energy, water resources and those responsible for WASH in healthcare facilities.
Learning and adaptation 	5	Overall Learning and adaptation
	5.1	There are institutionalised learning platforms and/or mechanisms at sector level which include healthcare facility WASH (joint sector reviews, donor platforms, donor-government platforms, national learning alliance, thematic working groups, resource centres and sector web sites).
	5.2	The national learning platforms are linked to the decentralised level.
	5.3	The reflections from these platforms are documented and shared and these are systematically taken up in policies, strategies and practice.
	5.4	The institutions working on healthcare facility WASH are actively discussing, learning and strategising about how to address issues people that are left behind to ensure healthcare facility WASH service delivery to all.
	5.5	The platforms are sufficiently representative of the different sector stakeholders, including representatives of groups/organisations working on rights of women, people with disabilities and marginalised communities.
	5.6	The institutions working on healthcare facility WASH are actively discussing, learning and strategising about how to integrate climate change risk reduction into water, sanitation and hygiene service delivery.
Monitoring 	6	Overall Monitoring
	6.1	There is a national monitoring framework for WASH in healthcare facility. It covers service delivery in different contexts and is part of, links to, or is complemented by the water and sanitation monitoring information systems and health monitoring system.
	6.2	The data from the monitoring system are analysed and used at sector level, e.g. for macro-level planning, trends analysis, policy making.
	6.3	The monitoring systems include indicators related to the different components as per JMP definitions for basic water, sanitation, hygiene, solid waste management, environmental management (see https://washdata.org/monitoring/health-care-facilities).
	6.4	The monitoring systems actively cover the entire country (all healthcare facilities).
	6.5	The data in the national monitoring system are regularly updated.
	6.6	There is monitoring and documentation of priority climate hazards to healthcare facility WASH infrastructure. There is a link between disaster reporting and climate adaptation planning.

Planning 	7	Overall Planning
	7.1	National planning mechanisms exist and they are based on a vision for reaching the healthcare facility WASH targets (national or SDG) and a realistic understanding of costs and budgets. These mechanisms support coordinated planning among sector stakeholders (gov't, utilities, donors, etc)
	7.2	The national plans take into account different types of healthcare facilities
	7.3	The national plan reflects and takes into consideration the planning done at decentralised level and vice versa.
	7.4	National plans and planning mechanisms include specification for WASH facilities suitable for women (including menstrual hygiene management), people with disability and in-patients with specific needs.
	7.5	The plans incorporate an analysis of climate change risk and vulnerability.
Policy and legislation 	8	Overall Policy and Legislation
	8.1	A legal framework for healthcare facility WASH is in place.
	8.2	National guidelines for development and management of healthcare facility WASH services are in place.
	8.3	National WASH in healthcare facility policy and strategy is in place.
	8.4	Norms and standards for quality of works are in place.
Regulation and accountability 	9	Overall Regulation and accountability
	9.1	There is an entity responsible for monitoring and regulating that healthcare facilities provide adequate WASH services in line with national standards and guidelines.
	9.2	There is a regulatory entity for healthcare facility WASH services or regulatory functions delegated to sub-national institutions (e.g. through contracts).
	9.3	The entity equipped with regulatory functions uses data (monitoring data, audits and score cards) to guide regulation.
Water Resource management 	10	Overall Water Resource management
	10.1	There are national water resource management institutions in place and able to undertake their mandated functions for water resource management as it pertains to potable water supply (catchment authorities and river basin authorities) and sanitation for healthcare facilities.

Local WASH

Building block	Code	Description
Climate	Index Indicator 1	Index Indicator climate: WASH services and behaviours that continue to deliver benefits, or that are appropriately restored, within a changing climate context and despite climate induced hazards. Robust, sustainable WASH systems can improve resilience to climate change.
Capacity	Index Indicator 2	Index Indicator Capacity: The service authority (e.g. ministry), service providers and regulator have capacity to plan and implement service system improvements based on data (indexed Index Indicator)
GESI	Index Indicator 3	Index Indicator GESI: The vulnerable households/groups/communities/people with disabilities are identified and acknowledged for support by government to ensure safe and sustainable services
Finance \$	1	Overall Finance
	1.1	The nationally defined mechanisms for covering expenditure on the different cost categories (capital expenditure (hardware and software), capital maintenance expenditure, operational and minor maintenance expenditure, direct and indirect support and capital costs) are known, in place and applied at district level
	1.2	There is adequate funding in the district to enable implementation of plans according to schedule.
	1.3	The district has a clear funding strategy for addressing the funding gaps.
	1.4	There is sufficient absorption capacity for and a manageable gap between budget and disbursements to follow planning of asset development.
	1.5	There are measures to prioritise WASH water supply in local level planning (earmarked budget).
	1.6	The nationally defined considerations and subsidy mechanisms (block tariffs, cross subsidies between providers or other) are applied. These include provisions (e.g. subsidies) for marginalised communities who are poor/unable to afford connection charges/tariffs/etc.
	1.7	There is a comprehensive assessment of the cost of climate adaptation in the WASH sector under different scenarios, for example for prolonged droughts and more frequent floods. The funding gaps are estimated.
	2	Overall Infrastructure Development
	2.1	The project delivery models and procurement and implementation manuals and procedures for capital investments projects are known and followed at district level.
Infrastructure development 	2.2	The mechanisms and capacities for carrying out due diligence, regulation and control over procurement are in place and applied at the district (local) level.
	2.3	The guidelines for accessible facilities at the point of use for people with disabilities, old, pregnant women, etc, are understood and used at district level and a known portion (%) of facilities are accessible in the district.
	2.4	Water and sanitation service delivery mechanisms are based on locally-led risk analysis that addresses climate change factors and these mechanisms minimise population exposure to potential failure arising from climatic threats.
	3	Overall infrastructure management
Infrastructure management 	3.1	Asset ownership is defined in detail between service authority and service provider(s) following the national legal framework.
	3.2	An up-to-date inventory exists of all (or most) public/utility infrastructure assets, including age and current physical state of assets for the focus district and the inventory is accessible to stakeholders at district level. [Note: this may vary per service delivery model and/or service provider (e.g. utility has is but community managers not), please indicate this in the explanation of your score]
	3.3	Roles and responsibilities related to asset management are clearly defined and known at district level and service authority is fulfilling its role accordingly.
	3.4	The service authorities ensures that technical and/or financial support is available to service providers.

Institutions 	4	Overall Institution building block
	4.1	The required institutional set-up for the different Service Delivery Models (in particular for the service authority and service provider roles) is in place.
	4.2	Service authorities and service providers have a formalised relationship for addressing accountability (contract, performance agreement and authorisation).
	4.3	All the required staff positions of the service authority are filled.
	4.4	The service authority receives regular back-up or support from higher levels of government.
	4.5	District WASH stakeholders have access to and make use of capacity building institutions, mechanisms and platforms and, resulting in adequate capacity for undertaking roles and responsibilities.
	4.6	Adequate and functional relationships and district-level coordination mechanisms exist among institutions at decentralised level
	4.7	At least one third of the staffing of decentralised bodies (district, service providers, community boards) include women and/or people from marginalised communities/with disabilities. Or/and Women and people from marginalised communities are part of decision making positions/platforms.
	4.8	Institutional roles and responsibilities for climate resilient WASH are clearly defined (for example between actors in the WASH, environment and climate change sectors)?
Learning & adaptation 	5	Overall Learning and adaptation
	5.1	There are institutionalised learning platforms that district level stakeholders participate in (district stakeholder platform, thematic working groups, resource centres, national or provincial platforms that include district staff).
	5.2	These district learning mechanisms are linked to the national level.
	5.3	The reflections from these platforms are documented and shared and these are systematically taken up in policies, strategies and practice.
	5.4	The institutions working with WASH are actively discussing, learning and strategising about how to address issues of communities and people that are left behind to ensure WASH service delivery to all.
	5.5	The platforms are sufficiently representative of the different sector stakeholders, including representatives of groups/organisations working on rights of women, people with disabilities and marginalised communities.
	5.6	The institutions working with WASH are actively discussing, learning and strategising about how to integrate climate change risk reduction into WASH delivery and ongoing management.
Monitoring 	6	Overall Monitoring
	6.1	The agreed national monitoring system(s) for the specific Service Delivery Models are in use in the district.
	6.2	The data from the monitoring system are analysed and used at district level, e.g. for annual planning, investment planning, trends analysis, learning and adaptation, etc.
	6.3	The monitoring systems include both service delivery indicators (service level, insights into shit-flows through shit flow diagrams, service provider performance, service authority performance) and upstream systems strengthen (or sector performance) indicators.
	6.4	The total of monitoring systems in use cover the entire district (all communities, all service providers).
	6.5	The data in the monitoring system used at district level are regularly updated.
	6.6	The monitoring system captures disaggregated data (women, people with disabilities, marginalised communities)
	6.7	There is monitoring and documentation of priority climate hazards to water resources and water and sanitation infrastructure. There is a link between disaster reporting and climate adaptation planning.

Planning 	7	Overall Planning
	7.1	There are multi-annual WASH plan at district level, with a clear, joint vision, with targets that link to national targets.
	7.2	These plans take into account both new infrastructure (capital investment) and needs to ensure sustainable service delivery (recurrent costs including capital maintenance expenditure), with a reasonable indication of the required expenditure and sources of funding and financing.
	7.3	A consultation process with key stakeholders for making the plan is in place, including relevant stakeholders at multiple levels (national authorities, traditional leaders, development partners, water resource management bodies, etc)
	7.4	The planning process includes participation of people from marginalised communities (at least 1/3 women) - includes people with disabilities.
	7.5	District level WASH plans take into account equity (access) issues.
	7.6	The plans incorporate an analysis of climate change risk and vulnerability.
Policy & legislation 	8	Overall Policy and Legislation
	8.1	By-laws and ordinances for service delivery arrangements are in place.
	8.2	National sector legislation, policies, norms and standards and guidelines are known by local stakeholders.
Regulation & accountability 	8.3	The district level service authority are aware of the policy provisions to ensure no one is left behind and support their implementation.
	9	Overall Regulation and accountability
	9.1	The entity equipped with regulatory functions undertakes (1) tariff regulations, (2) service provider performance regulation, (3) consumer protections, (4) water quality regulation. (5) environmental regulation and applies effective enforcement (incentives, penalties)
	9.2	The entity equipped with regulatory functions uses monitoring data to guide performance management and applies effective enforcement (incentives, penalties) in the four / five areas of regulation.
	9.3	Mechanism and platforms for citizens and/or Civil Society Organisations to be informed and to be consulted on service delivery issues and to hold service providers to account is in place. This includes involvement of women and people with disabilities.
Water resource management 	9.4	There governmental mechanisms to monitor progress towards climate change adaptation national targets related to the water and sanitation (e.g. NDCs; NAP) and the district aware of these commitments.
	10	Overall Water Resource Management
	10.1	Service providers in the district plan for and carry out source protection and preservation activities such as water safety and water security plans.
	10.2	Service providers and/or the service authority are able to engage with water resource management decision making at catchment or basin level.
	10.3	Water Resource Management instruments such as abstraction permits, abstraction fees and disposal license are applied.
	10.4	There are mechanisms in place for managing any conflicts or rather synergies between users of water for drinking and other uses (such as agriculture and livestock) that minimise the effect of the performance of schemes (such as Multiple Use Systems).
	10.5	The local platforms for water resources include representatives of relevant groups - women's groups, farmers, communities marginalised, people with disabilities who are dependent on water for domestic and livelihood purposes, etc. to ensure needs are considered
	10.6	Service providers and/or authorities develop and expand the water supply and sanitation infrastructure, taking into account water resource availability and variability, including vulnerability to extreme events, as well as impact on receiving water bodies.
	10.7	Climate data and district level projections have been used to conduct a risk assessment (with local actors leading the process) that considers different climate hazards, the level of exposure of infrastructure and population, as well as vulnerabilities of the water and sanitation sector (e.g. vulnerability mapping) in relation to climate change and to prioritise interventions.

6.2 Annex 2

WASH Systems Index baseline scores at local level (2024)

	Bangladesh			Nepal	
	Paikgacha Upazila	Lalmonirhat Urban Municipality	Paikgacha Urban Municipality	Koshi Province	Madhesh Province
Finance	21%	21%	32%	20%	10%
Infrastructure development	38%	38%	44%	41%	66%
Infrastructure management	31%	31%	38%	43%	50%
Institutions	28%	31%	31%	41%	41%
Learning & adaptation	25%	17%	21%	35%	45%
Monitoring	29%	25%	29%	25%	39%
Planning	33%	33%	42%	48%	38%
Policy & legislation	25%	17%	42%	21%	4%
Regulation & accountability	19%	19%	19%	10%	10%
Water resource management	18%	14%	18%	40%	40%
Average BB score	27%	25%	31%	32%	34%

	Nigeria		Sierra Leone					
	CRS Yala	Makoda	Freetown	Kenema	Moyamba	Bombali	Kambia	Kono
Finance	22%	22%	44%	25%	25%	25%	25%	25%
Infrastructure development	13%	56%	45%	50%	50%	50%	50%	50%
Infrastructure management	6%	56%	25%	25%	25%	25%	25%	25%
Institutions	19%	28%	38%	38%	38%	38%	38%	38%
Learning & adaptation	4%	4%	48%	50%	50%	50%	50%	50%
Monitoring	4%	46%	21%	18%	18%	18%	18%	18%
Planning	17%	13%	20%	17%	17%	17%	17%	17%
Policy & legislation	17%	42%	44%	50%	50%	50%	50%	50%

Monitoring WASH systems strengthening and change

Regulation & accountability	6%	19%	35%	38%	38%	38%	38%	38%
Water resource management	7%	68%	58%	61%	61%	61%	61%	61%
Average BB score	11%	35%	38%	37%	37%	37%	37%	37%

	Malawi				Tanzania					
	Lilongwe	Dowa	Chikwawa	Kasungu District	Bahi	Bariadi	Itilima	Mpwapwa	Meru	Longido
Finance	22%	44%	44%	50%	22%	28%	31%	44%	22%	34%
Infrastructure development	44%	50%	69%	56%	38%	25%	50%	63%	56%	31%
Infrastructure management	25%	63%	63%	50%	31%	50%	63%	69%	56%	38%
Institutions	47%	53%	66%	63%	34%	44%	34%	38%	28%	53%
Learning & adaptation	58%	25%	71%	58%	4%	25%	13%	4%	4%	25%
Monitoring	50%	43%	50%	57%	21%	21%	46%	50%	46%	46%
Planning	63%	79%	71%	67%	17%	33%	13%	29%	13%	29%
Policy & legislation	67%	50%	58%	58%	25%	33%	33%	50%	42%	50%
Regulation & accountability	44%	13%	44%	56%	6%	6%	6%	19%	19%	19%
Water resource management	40%	75%	46%	54%	11%	36%	36%	32%	68%	46%
Average BB score	46%	49%	58%	57%	21%	30%	32%	40%	35%	37%

