

# Integrating climate resilience with WASH system strengthening

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## Acknowledgements

This guidance, including the proposed climate resilient WASH systems assessment questions and categorisation of possible states, was developed through an initiative led by James Wicken, with the support of the Australian Government, through the Water for Women Fund. WaterAid would like to thank James Wicken, the many experts consulted and the Water for Women Fund for their support throughout this initiative.

► Shabana Das collecting rainwater for her family to drink. Trimohoni, Dacop, Khulna, Bangladesh. August 2020.



WaterAid/BRIK/Habibul Haque



◀ Sokhina Khatun walks miles to collect clean drinking water. Shamnagar, Shatkhira, Bangladesh.

## Introduction

This document sets out how WaterAid programmes can analyse the WASH (water, sanitation and hygiene) system through a climate resilience lens. This can help to integrate climate resilient WASH into established **system strengthening** ways of working. This analysis should be undertaken as a complement to other contextual analysis, including **political economy analysis, stakeholder analysis and gender equality**. An ongoing analysis of context is central to supporting WaterAid's **adaptive programming**.

WaterAid's working definition of climate resilient WASH is set out below and has been informed by our programmatic experiences:

**Climate resilient WASH refers to WASH services and behaviours that continue to deliver benefits, or that are appropriately restored, within a changing climate context and despite climate induced hazards. Strong WASH systems can improve resilience to climate change.**

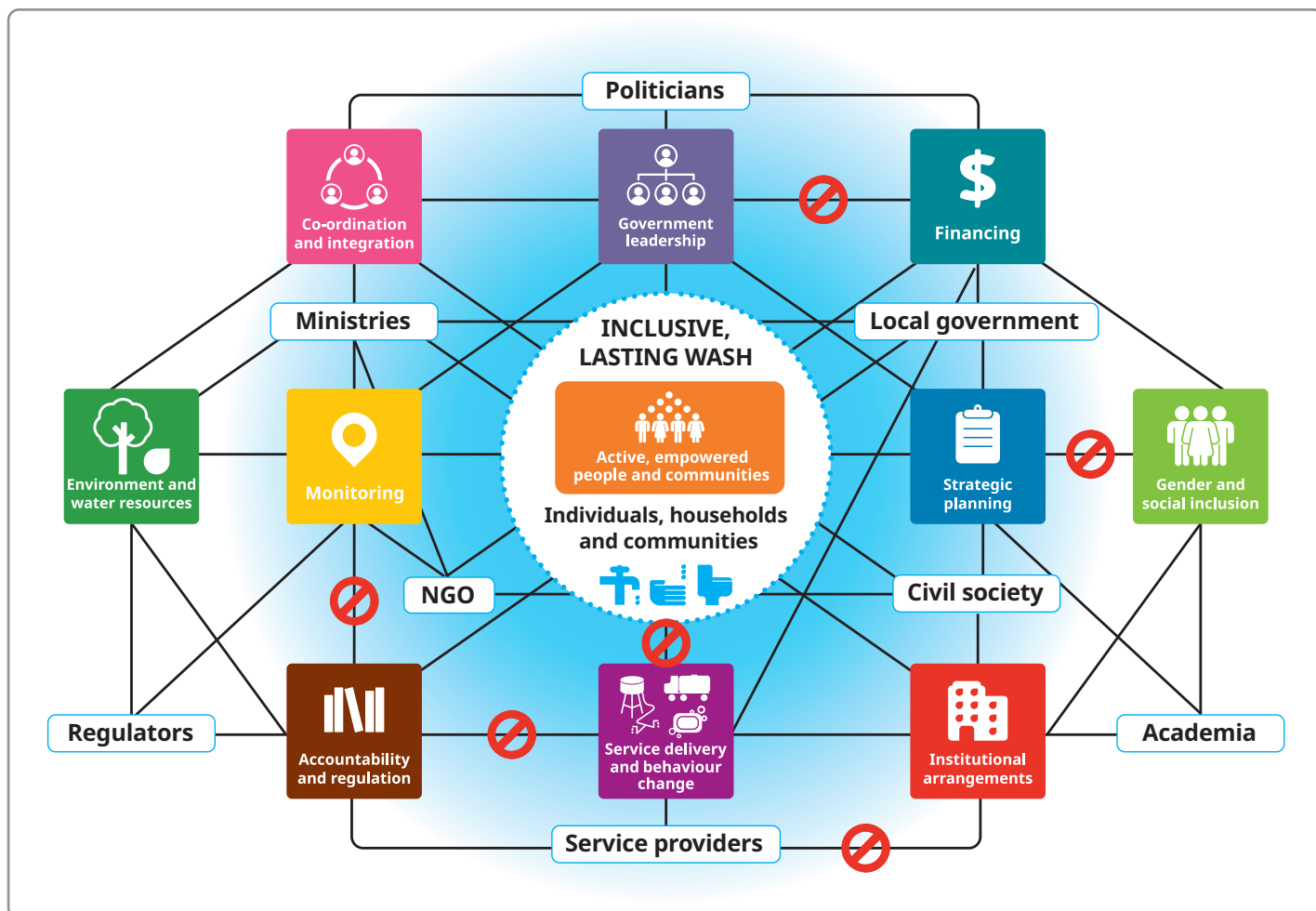
Climate resilient WASH requires approaches that enable systems to persist, adapt and transform in the face of uncertainty and threats associated with climate change. This document focuses on an approach to analysing the WASH system through a climate lens as an entry point to guide programming and policy decision-making.

Additional guidance providing detail on the nature of climate change with respect to WaterAid's vision, the dynamics of resilience, intersections with principles for locally-led adaptation, as well as practical support for undertaking vulnerability and risk assessments is available in WaterAid's *Programme guidance for climate resilient WASH*.<sup>1</sup>

Taken together, these two documents set out how WaterAid define and approach climate resilient WASH.

1. WaterAid (2021). *Programme guidance for climate resilient WASH*.

# The WASH system



**Figure 1: WaterAid's conceptualisation of the WASH system**

Figure 1 represents WaterAid's conceptualisation of a WASH system. It is made up of all the actors (people and institutions), factors (social, economic, political, environmental, technological) and the interactions between them that influence the achievement of inclusive, sustainable, universal access to WASH.<sup>2</sup> WASH system actors are presented in the diagram in the white text boxes with a blue border.

WASH system factors are presented by the colourful icons and are sometimes referred to as 'building blocks'. Interactions are illustrated by the black lines between the actors and factors. Red no-entry signs illustrate some of the potential blockages within a WASH system. Actors, factors, interactions and system blockages will vary from context to context.

2. WaterAid (2021). *WaterAid glossary of key system strengthening terms*. Available at: [washmatters.wateraid.org/sites/g/files/jkxooof256/files/2021-08/WaterAid%27s%20system%20strengthening%20glossary\\_August2021\\_0.pdf](https://washmatters.wateraid.org/sites/g/files/jkxooof256/files/2021-08/WaterAid%27s%20system%20strengthening%20glossary_August2021_0.pdf)

## WASH system building blocks



▲ Leyew Animut accessing the water tower in Finote Selam, Ethiopia, February 2020.

A system strengthening way of working is essential to achieve the Sustainable Development Goal (SDG) targets of universal and equitable access to WASH.<sup>3</sup> Although there is no blueprint for supporting the development of an effective WASH system, key characteristics are consistently recognised as essential to building effective systems at national and local levels.<sup>4</sup>

WASH systems are often broken down into more manageable component parts, or 'building blocks'. While articulations vary slightly between different sector actors, there is a large degree of consensus on what essential 'building blocks' comprise WASH systems.<sup>2</sup>

▼ Olobase Amingayam collects water using a handpump from the community water point. Ghana, December 2019.



3. WaterAid (2019). *Beyond building blocks*. Available at: [washmatters.wateraid.org/publications/beyond-building-blocks-identifying-and-monitoring-dynamic-drivers-of-sector](https://washmatters.wateraid.org/publications/beyond-building-blocks-identifying-and-monitoring-dynamic-drivers-of-sector)
4. WaterAid (2017). *Achieving a step change in sector performance*. Available at: [washmatters.wateraid.org/sites/g/files/jkxooof256/files/Achieving%20a%20step%20change%20in%20sector%20performance\\_0.pdf](https://washmatters.wateraid.org/sites/g/files/jkxooof256/files/Achieving%20a%20step%20change%20in%20sector%20performance_0.pdf)

# Integrating climate resilience

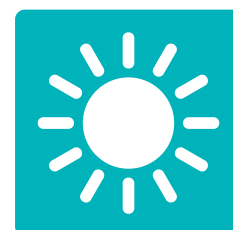
To support an analysis of the WASH system, WaterAid has developed a design toolkit that includes a range of exercises intended to guide the assessment process. The toolkit includes a situation analysis exercise that explores the relative strength of different building blocks.<sup>5</sup> At the heart of the exercise is a series of prompting questions intended to spark thinking and prompt debate about the relative strength of factors and functions comprising the WASH system.<sup>6</sup> The situation analysis informs a process of prioritisation and localisation, enabling programmes to identify the most strategic aspects of the WASH system building blocks to target.<sup>7</sup>

To integrate climate resilience within this WASH system building block analysis exercise, a small number of additional questions have been defined. The identified questions emerged from reviewing existing literature<sup>8</sup> as well as a process of expert review and consultation.<sup>9</sup> This proposed set of additional questions is set out in Table 1.

The purpose of defining these prompting questions is to guide an assessment process that builds a deeper, shared understanding of current status. A situational analysis applying these questions could be undertaken as a stand-alone exercise focusing specifically on climate resilience, or as part of a broader WASH system building block assessment by incorporating these questions together with the existing set. A WASH systems assessment can be undertaken at national or sub-national levels.



▲ Gita Roy is the leader of Golap Dol, Tengrakhali village, Khulna Division, Bangladesh, 2021.



5. WaterAid (2020). *System strengthening and empowerment project design toolkit*. Available at: [washmatters.wateraid.org/sites/g/files/jkxooof256/files/2021-07/System%20Strengthening%20%26%20Empowerment%20project%20design%20toolkit.pdf](https://washmatters.wateraid.org/sites/g/files/jkxooof256/files/2021-07/System%20Strengthening%20%26%20Empowerment%20project%20design%20toolkit.pdf)
6. WaterAid (2019). *A guide to support planning, monitoring, evaluation and learning*. Available at: [washmatters.wateraid.org/publications/a-guide-to-support-planning-monitoring-evaluation-and-learning](https://washmatters.wateraid.org/publications/a-guide-to-support-planning-monitoring-evaluation-and-learning)
7. WaterAid (2019). *Sub-national WASH sector sustainability analysis tool*. Available at: [washmatters.wateraid.org/publications/sub-national-wash-sector-sustainability-analysis-tool-kampong-chhnang-cambodia](https://washmatters.wateraid.org/publications/sub-national-wash-sector-sustainability-analysis-tool-kampong-chhnang-cambodia)
8. See Annex B for a list of resources reviewed in refining the identified prompting questions.
9. The consultation process comprised internal reviews by WaterAid teams in Australia, the UK, regional teams and self-selected country programmes, as well as feedback from WaterAid Australia's Board and HARC (Hydrology And Risk Consulting).

**Table 1: Climate resilience questions for WASH system building block analysis**

Building blocks	Questions
Policy, strategy and planning	Is there a strategic framework in which environmental and climate change adaptation policies and strategies (including National Adaptation Plans (NAPs) and Nationally Determined Contributions (NDCs)) are well aligned with those of WASH, and vice versa? If so, how well is it used to guide programmes and interventions towards building more resilient services and behaviours?
	To what extent are WASH plans based on an analysis of risk and vulnerability, which includes climate change considerations?
Institutional arrangements and capacity	To what extent are institutional roles and responsibilities for climate resilient WASH clearly defined (for example between actors in the WASH, environment and climate change sectors)?
	To what extent do the institutions working with WASH have the capacity to address the integration of climate change risk reduction into WASH delivery and ongoing management?
Coordination and integration	What form of inter-ministerial/inter-departmental coordination mechanism exists between departments responsible for climate change, environment, agriculture, energy, water resources and for water supply and sanitation?
	How is climate change risk and vulnerability integrated into sectoral dialogues, joint sector reviews, information exchange and coordination meetings – thus strengthening collaboration between departments and agencies?
Financing	Is there a comprehensive assessment of the cost of climate adaptation in the WASH sector under different scenarios, i.e. prolonged droughts and more frequent floods? Are funding gaps estimated?
	To what extent are national priorities set for risk management and adaptation supported with adequate financing mechanisms and sufficient funds?
Service delivery and behaviour change	Are water and sanitation service delivery mechanisms based on locally-led risk analysis that addresses climate change factors and do these mechanisms minimise population exposure to potential failure arising from climatic threats in different contexts?
	To what extent are water and sanitation service delivery mechanisms resilient to climate change and contributing to build community resilience to the impacts of climate change?
	To what extent are users/communities practising and enforcing the behaviours that ensure climate resilience/water resource sustainability?

Building blocks	Questions
<b>Monitoring</b>	Are plans to monitor priority threats to water resources and water and sanitation infrastructure developed and to what extent are monitoring plans used?
	How effective has monitoring data been in managing and/or addressing realised threats?
<b>Accountability and regulation</b>	Are there governmental mechanisms to monitor progress towards climate change adaptation national targets and international commitments that are related to water and sanitation (e.g. NDCs; NAP) and is the information made public?
<b>Gender and social inclusion</b>	How well understood are the different impacts of climate change on men and women, sexual and gender minorities, and marginalised and vulnerable people as they relate to water, sanitation and hygiene?
	To what extent are women and men, and marginalised and vulnerable groups, meaningfully involved in vulnerability assessments and in developing and implementing adaptation strategies?
<b>Environment and water resources</b>	What level of climate and water resources monitoring data is available, at appropriate temporal and spatial scales? How appropriate are data collection and storage standards applied to inform national and/or catchment scale water resources strategic planning?
	What level of downscaled future climate projections are available to inform national and catchment scale water resources strategic planning?
	How well have climate data and climate change projections been used to conduct a risk analysis (with local actors leading the process)? And does that risk analysis consider 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 prioritising interventions?
	How are water allocations determined and effectively regulated in line with sustainable use, social equity and economic efficiency?
	What form of drought and flood management strategies exist in the country (linked to early warning and contingency planning) and how do they prioritise the use of water for human consumption over other uses in the event of scarcity?
<b>Government leadership</b>	How is government demonstrating active leadership on the climate resilient WASH agenda?
<b>Active, empowered people and communities</b>	To what extent are people/communities undertaking local adaptation measures to make WASH services more resilient?
	What form of mechanism is established for people/communities to demand action on climate resilient WASH?



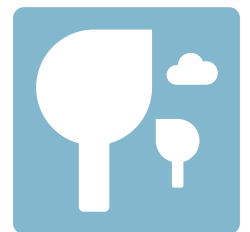
## Categorising current status

As with WaterAid's existing WASH system building block analysis tool, four possible states have been defined for each, prompting question on a continuum from weak to desired. Categorising and mapping responses helps to visualise the process and provide a baseline for future comparative analysis.

Table 2 presents an illustrative matrix that can be completed to map the relative status of WASH system building blocks in response to prompting questions. And Annex C sets out definitions for each state and each WASH system building block. Depending on the context of different countries or subnational areas, the prompting questions and definitions of the four states may benefit from being modified to reflect unique considerations.

Undertaking a situational analysis is best made through a participatory workshop process involving stakeholders responsible for WASH and climate change. It is particularly important to involve local stakeholders, not only government institutions, in this process as when it comes to water resource management and natural resource stewardship, customary and community-based institutions play a significant role.

Additional guidance on how to use the assessment tool is available in WaterAid's **system strengthening and empowerment project design toolkit**.



► Anita Das now has a climate resilient and hygienic toilet. Trimohoni, Dacop, Khulna, Bangladesh. August 2020.



**Table 2: Illustrative matrix for mapping relative status of WASH system building blocks**

Building blocks	Weak	Emerging	Strengthening	Desired
Policy, strategy and planning				
Institutional arrangements and capacity				
Coordination and integration				
Financing				
Service delivery and behaviour change				
Monitoring				
Accountability and regulation				
Gender and social inclusion				
Environment and water resources				
Government leadership				
Active, empowered people and communities				

# Annex A: Definitions of WASH system building blocks

**Active, empowered people and communities** are needed to monitor and ensure the continuation of responsive and accountable service provision and therefore the enjoyment of the human rights to water and sanitation. The realisation of the human rights to water and sanitation, in practice, requires a demand for improved services as well as a commitment to undertake improved WASH behaviours. It requires interaction between WASH users and service providers/regulators underpinned by an awareness of rights.

Strong **government leadership** is needed to ensure sustainable WASH is prioritised for investment and WASH interventions are coordinated to reach the most marginalised. Without government leadership, WASH interventions will be fragmented, unaligned to government policy and may not reach a larger scale.

**Gender and social inclusion.** In all countries there are population groups and people who are excluded from services because of where they live, the group they belong to or their individual identity. Ingrained power imbalances, cultural barriers and marginalisation must be tackled to ensure everyone's WASH needs are met.

**Institutional arrangements and capacity** typically refer to institutions at all levels having clear roles and responsibilities, set out in government policy, with adequate human and financial resources available to fulfil these roles and responsibilities. This includes capacity in terms of available skills and staff to fill roles.

**Coordination and integration.** Government-led coordination of WASH actors around one plan is necessary to avoid duplication of effort and fragmented interventions that do not adhere to national standards. Integration of WASH across health, education and other sectors is necessary to achieve scale, sustainability and gender-inclusive outcomes.



▲ Sokhina Khatun carrying water to clean utensils. The water they get from the tube well is salty and undrinkable due to the impacts of climate change. Shamnagar, Shatkhira, Bangladesh. November 2020.

**Monitoring** of sector performance enables progress to be tracked against sector targets and helps to inform where course correction is necessary. Ongoing service level monitoring, using harmonised indicators, helps government to develop strategic plans identifying where they and others should invest in WASH and target support to sustain WASH gains.

**Policy, strategy and planning.** Policies, strategies and plans at the national and local government level need to set out clear targets, standards and pathways for achieving and sustaining WASH delivery, align stakeholders behind a common vision, define clear roles and enable mobilisation of resources.

**Financing.** Sector financing strategies that cover all WASH life-cycle costs and consider economic inequalities, are critical for the realisation of inclusive, lasting, universal access. Low public and private sector investment, inadequate fiscal decentralisation, ineffective processes for timely release of funds and low prioritisation of revenue allocation for capital maintenance, ongoing support and behaviour change mean WASH targets are not met or sustained.



**Service and behaviour change delivery.** WASH should be available to all on an ongoing basis. Service options, management arrangements, technologies, procurement processes, quality control processes and behaviour change strategies are necessary to deliver inclusive WASH and to sustain it. Service options have to be appropriate to the context in which they are implemented and resilient to various threats, including climate change.

**Accountability and regulation.** Governments are responsible for developing policies, laws and regulations and making decisions that affect people in society. While WASH commitments may exist on paper they may not be implemented unless governments are held to account. Similarly, service providers, WASH users, donors, NGOs and civil society actors have responsibilities that may not be exercised unless they too are held to account.

**Environment and water resources.** Access to WASH is dependent upon the availability of sufficient quantities of good quality water. This is dependent upon well-managed water resources, healthy ecosystems and well-managed disaster mitigation.

▲ Members of the committee managing the Maricchap Reverse Osmosis Water Plant in Tengrakhali village, Khulna Division, Bangladesh, 2021.



## Annex B: Bibliography



- ISF-UTS (2020). *Climate change response for inclusive WASH: A guidance note for WaterAid Timor Leste.*
- UNICEF. *WASH Climate Resilience: A compendium of resources.*
- UNICEF and GWP (2017). *WASH Climate Resilient Development: Strategic Framework.*
- UNICEF and GWP (2017). *WASH Climate Resilient Development: Guidance Note Risk Assessments for WASH.*
- UNICEF (2020). *WASH BAT: Additional criteria for Climate Change.*
- WaterAid (2016). *Improving water security and management of water resources in Sahelian WASH programmes: a toolkit.*
- WHO (2017). *Climate-resilient water safety plans: Managing health risks associated with climate variability and change.*
- WHO (2019). *Discussion paper: Climate, sanitation and health.*

▼ Sumi lives on the banks of the Sutarkhali River with her family. Tidewaters overflow this area regularly – super cyclone Amphan destroyed most of the riverside toilets. August 2020.



# Annex C: Climate resilient WASH states for rapid WASH system building block assessment

Building blocks	Weak	Emerging	Strengthening	Desired
Policy, strategy and planning	There is <b>not a strategic framework</b> in which environmental and climate change adaptation policies and strategies are well aligned with those of WASH or vice versa.	Climate change adaptation policies and strategies <b>make reference</b> to the WASH sector and vice versa, but frameworks are not used/applied in programming.	Recent updates to climate change adaptation policies and strategies <b>demonstrate a move towards greater alignment</b> with those of WASH and vice versa, and are increasingly used to guide programmes and interventions towards building more resilient services.	There is a <b>strategic framework</b> in which environmental and climate change adaptation policies and strategies are well aligned with those of WASH, and vice versa, which are used to guide programmes and interventions towards building more resilient services.
	WASH plans are <b>not informed</b> by climate risk analysis.	WASH plans <b>factor in climate risk in a general way</b> but are not backed by risk analysis.	WASH plans are based on a <b>preliminary climate risk analysis</b> .	WASH plans are grounded in a <b>comprehensive risk analysis</b> , which includes a climate component.
Institutional arrangements and capacity	There has <b>not been an attempt to define</b> roles and responsibilities for climate resilient WASH across sectors.	<b>Initial steps are being taken</b> to define roles and responsibilities for climate resilient WASH across sectors.	Roles and responsibilities for climate resilient WASH have been defined between sectors, however, <b>overlapping responsibilities and lack of accountability continue</b> .	Roles and responsibilities for climate resilient WASH are <b>clearly defined</b> between sectors.
	There is <b>very limited capacity</b> with the institutions working with WASH to address the integration of climate change risk reduction into WASH delivery and ongoing management.	<b>Initial steps are being taken to strengthen the capacity</b> of institutions working with WASH to address the integration of climate change risk reduction into WASH delivery and ongoing management.	Institutions working with WASH have <b>enhanced their capacity</b> to address the integration of climate change risk reduction into WASH delivery and ongoing management.	Institutions working with WASH have <b>adequate capacity</b> to address the integration of climate change risk reduction into WASH delivery and ongoing management.

Coordination and integration	Inter-ministerial/inter-departmental coordination on climate change, environment, agriculture, energy, water resources and for water supply and sanitation does <b>not</b> take place.	<b>Informal coordination</b> between ministries and/or departments responsible for climate change, environment, agriculture, energy, water resources and for water supply and sanitation takes place to a limited degree.	There is an inter-ministerial/inter-departmental <b>coordination mechanism comprising some (but not all) departments</b> responsible for climate change, environment, agriculture, energy, water resources and for water supply and sanitation.	There is a <b>functioning inter-ministerial/inter-departmental coordination mechanism</b> between departments responsible for climate change, environment, agriculture, energy, water resources and for water supply and sanitation.
	Joint sector reviews, information exchange and coordination meetings <b>do not consider</b> climate change related issues.	Joint sector reviews, information exchange and coordination meetings are <b>beginning to cover/occasionally cover</b> issues related to climate change.	Joint sector reviews, information exchange and coordination meetings <b>regularly address</b> issues related to climate change.	Climate change risk and vulnerability is <b>integrated into</b> sectoral dialogues, joint sector reviews, information exchange and coordination meetings – thus strengthening collaboration between departments and agencies.
Financing	There has been <b>no attempt to estimate the cost</b> of climate adaptation in the WASH sector.	<b>Basic estimates</b> of the costs of climate adaptation are available.	Cost estimates for climate adaptation under <b>at least one scenario are available.</b>	There a <b>comprehensive assessment of the cost</b> of climate mitigation and adaptation in the WASH sector under different scenarios i.e. prolonged droughts and more frequent floods and funding gaps are estimated.
	There are <b>no financing mechanisms nor finance</b> to support national priorities for risk management and adaptation.	There is a <b>financing mechanism in place</b> to support national priorities for risk management and adaptation, however, it is <b>not backed with any finance.</b>	There is a <b>financing mechanism</b> in place to support national priorities for risk management and adaptation however it <b>provides less than a quarter of the finance needed.</b>	<b>Financing mechanisms with sufficient finance</b> are available to support national priorities for risk management and adaptation.

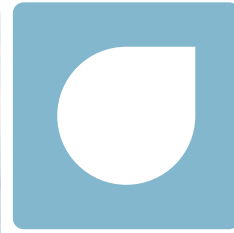
Service delivery and behaviour change	There is <b>no consideration of climate change risk</b> in water and sanitation service delivery systems.	Water and sanitation service delivery systems are <b>beginning to incorporate basic risk analysis</b> that addresses climate change factors.	Water and sanitation service delivery systems are <b>based on risk analysis</b> that address climate change factors and aim to minimise population exposure to potential failure arising from climactic threats <b>but lack detail for different contexts.</b>	Water and sanitation service delivery systems are <b>based on locally-led risk analysis</b> that address climate change factors and aim to minimise population exposure to potential failure arising from <b>climactic threats in different contexts.</b>
	Water and sanitation service delivery systems are <b>not resilient</b> to climate change impacts.	Water and sanitation service delivery systems are <b>resilient to minor and short-term climate change impacts</b> and <b>basic guidelines/standards</b> on climate resilient infrastructure exist.	Water and sanitation service delivery systems are <b>resilient to minor and medium-term climate change impacts</b> and <b>basic guidelines/standards</b> on climate resilient infrastructure exist.	Water and sanitation service delivery systems are <b>resilient to all climate change impacts</b> and there are <b>comprehensive guidelines/standards</b> on climate resilient infrastructure that <b>contribute to building community resilience</b> to the impacts of climate change.
	Users/communities <b>do not know</b> which behaviours ensure climate resilience/water resource sustainability.	Users/communities are <b>becoming aware</b> of the behaviours that ensure climate resilience/water resource sustainability.	Users/communities <b>practise behaviours</b> that ensure climate resilience/water resource sustainability.	Users/communities <b>practise and enforce behaviours</b> that ensure climate resilience/water resource sustainability.
Monitoring	There are <b>no plans</b> to monitor priority threats to water resources and water and sanitation infrastructure.	There are plans to monitor priority threats to water resources and water and sanitation infrastructure, however, <b>plans are not operationalised.</b>	There are plans to monitor priority threats to water resources and water and sanitation infrastructure and <b>monitoring regularly occurs but is not used in planning.</b>	There are plans to monitor priority threats to water resources and water and sanitation infrastructure and <b>monitoring is undertaken regularly and is used in planning.</b>
	Monitoring data is <b>not used</b> for managing/addressing threats.	Monitoring data related to threats is <b>collected but not used</b> to address/manage threats.	Monitoring data is <b>used to address threats at the start of programmes but not updated</b> and used on a regular basis.	There is a well-functioning process to regularly update monitoring data and use it as a basis to manage/address threats.



<b>Accountability and regulation</b>	<p>There are <b>no governmental systems</b> to monitor climate change adaptation national targets and international commitments that are related to water and sanitation.</p>	<p>The government is <b>beginning to put in place systems</b> to monitor climate change adaptation national targets and international commitments that are related to water and sanitation.</p>	<p>There are <b>governmental systems</b> to monitor climate change adaptation national targets and international commitments that are related to water and sanitation (e.g. NDCs; NAP) but the information is not made public.</p>	<p>There are <b>governmental systems</b> to monitor climate change adaptation national targets and international commitments that are related to water and sanitation (e.g. NDCs; NAP) and the information is made public.</p>
<b>Gender and social inclusion</b>	<p><b>No information exists</b> on the different impacts of climate change on men and women and marginalised and vulnerable groups as they relate to water, sanitation and hygiene.</p>	<p>Sector professionals have <b>started to realise the need to assess the different impacts</b> of climate change on men and women and marginalised and vulnerable groups as they relate to water, sanitation and hygiene.</p>	<p>There are a <b>few programmes trying to assess the different impacts</b> of climate change on men and women and marginalised and vulnerable groups as they relate to water, sanitation and hygiene.</p>	<p>There is a <b>detailed understanding of the different impacts</b> of climate change on men and women and marginalised and vulnerable groups as they relate to water, sanitation and hygiene.</p>
	<p>There is <b>no involvement</b> of women or marginalised and vulnerable groups in vulnerability assessments and in developing and implementing adaptation strategies.</p>	<p>The needs of women and marginalised and vulnerable groups are <b>considered in vulnerability assessments</b>.</p>	<p>Women and men and marginalised and vulnerable groups are involved in <b>vulnerability assessments but not involved in developing and implementing adaptation strategies</b>.</p>	<p>Women and men and marginalised and vulnerable groups are <b>meaningfully involved in vulnerability assessments and in developing and implementing adaptation strategies</b>.</p>
<b>Environment and water resources</b>	<p><b>No information</b> on climate is readily available to inform strategic planning.</p>	<p><b>Basic climate data</b> (e.g. rainfall, temperature) for a limited number of sites across the country are collected, recorded and made readily available in a consistent format.</p>	<p><b>Water resources and climate data</b> (including daily rainfall, daily minimum and maximum temperature, evaporation, streamflow, groundwater levels and water quality) are collected, recorded and made readily available in consistent formats <b>across the country but with gaps in some variables or geographic regions</b>.</p>	<p><b>Water resources and climate data</b> (including sub-daily and daily rainfall, sub-daily temperature, evaporation, continuous streamflow and regularly monitored groundwater levels and water quality) are collected, recorded and made readily available in consistent formats, <b>with good coverage across all catchments and geographic regions</b>.</p>

Environment and water resources (continued)	No downscaling of climate change projections has been undertaken for the country, so the only information available is from Intergovernmental Panel on Climate Change (IPCC) Global Climate Model outputs.	Downscaled projections of changes in at least annual rainfall and temperature have been produced but they are not readily available or only available in summary form (e.g. a report).	Downscaled projections of changes in at least annual rainfall and temperature are readily available but are based on out of date global climate model projections.	Downscaled projections of seasonal and annual changes in rainfall, temperature and evaporation, produced using the latest IPCC assessment reports, are readily available for each catchment/hydro-climatic region in the country.
	Risk assessment has not been conducted.	Climate data and projections have been used to conduct basic risk assessment (without the involvement of local actors).	Climate data and projections have been used to conduct risk assessment with the involvement of local actors but gaps in the data or limitations of climate projection downscaling contribute uncertainties to the risk analysis.	Climate data and downscaled 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.
	There is no process for determining water allocations.	There is a basic framework in place for determining water allocations, however, it is not operationalised.	A framework is used for determining water allocation, but the framework does not appropriately balance environmental, social and economic outcomes, or regulation and enforcement is weak.	Water allocations are determined and regulated to achieve sustainable environmental, social cultural and economic outcomes.
	There are no drought and flood management strategies.	There are basic drought and flood management strategies in place, but these are yet to be operationalised.	Drought and flood management strategies are in place and are being implemented.	Drought and flood management strategies exist (linked to early warning and contingency planning) and they prioritise the use of water for human consumption over other uses in the event of scarcity.

<b>Government leadership</b>	Government showing <b>no interest</b> in the climate resilient WASH agenda.	Government is <b>engaging</b> in the climate resilient WASH agenda <b>but not leading</b> .	Government is incorporating the climate resilient WASH agenda into regular sector business without the urgency required.	Government is <b>proactively championing and leading</b> the agenda of moving towards climate resilient WASH.
<b>Active, empowered people and communities</b>	People/communities <b>are not taking any adaptation measures</b> .	People/communities are <b>aware of the need to adapt but not yet taking action</b> .	People/communities <b>are beginning to take adaptation measures to make services more resilient</b> .	People/communities have <b>made significant local adaptations</b> to services to make them resilient to climate impacts.
	There is no mechanism for people/communities to demand action on climate resilient WASH.	A mechanism for people/communities to demand action on climate resilient WASH is in the process of being established.	A basic mechanism for people/communities to demand action on climate resilient WASH is in place.	There is a well-functioning mechanism for people/communities to demand action on climate resilient WASH.



▲ A water monitor testing a new rain gauge in her village in the commune of Tenkodogo, in the Centre-East region, Burkina Faso, June 2019.

**Front cover top:** Shibpado Mandal using an accessible toilet without family members having to help him. This toilet was customised with the help of Wateraid-HSBC water programme. Pankhali, Dacope, Khulna, Bangladesh. August 2020.

**Front cover bottom:** Jamila Begum is collecting safe water from a Pond Sand Filter plant in Iswaripur. WaterAid initiated this project and it is funded by HSBC. Iswaripur, Shyamnagar, Shatkhira, Bangladesh. September 2018.

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**WaterAid is an international not-for-profit, determined to make clean water, decent toilets and good hygiene normal for everyone, everywhere within a generation. Only by tackling these three essentials in ways that last can people change their lives for good.**

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