Strengthening the Climate-Resilient water and sanitation systems:

A Practical Guide

for NGOs to drive Impact, Collaboration, and Scalability

2025

Content

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Acronyms

CBO	Community-based organisation
CR	Climate resilience
CR-WASH	Climate resilient water, sanitation and hygiene
DRR	Disaster risk reduction
ESG	Environmental, social and governance
GCF	Green climate fund
GESI	Gender equality and social inclusion
HR	Human resources
M&E	Monitoring and evaluation
MOU	Memorandum of understanding
NAP	National adaption plan
NDC	Nationally determined contribution
NGO	Non-governmental organisation
ROI	Return on investment
SWA	Sanitation and water for all
ToC	Theory of change
WASH	Water, sanitation and hygiene
WRM	Water resource management

Introduction

Aim of this guidance note

This guidance note is intended to support non-governmental organisations (NGOs) in strengthening the climate resilience of water, sanitation, and hygiene (WASH) systems through practical, actionable steps. It provides a structured yet adaptable framework to help organisations assess, plan, and integrate climate resilience across internal operations, programme delivery, and strategic engagement. In addition to implementation, it also supports efforts to influence the broader enabling environment, policy, financing, regulation, and coordination. While primarily designed for NGO programme managers, technical specialists, and senior leadership involved in the design, implementation, and strategic direction of WASH programmes, it may also be relevant to government officials, funders, private sector suppliers, and other sector stakeholders.

Why Climate Resilient WASH (CR-WASH), Why Now?

Water, sanitation and hygiene, or WASH, is no longer just another sector affected by climate change; it is increasingly recognised as the cornerstone and enabler of broader climate resilience. Recent international efforts have emphasised the need for resilient water and sanitation services to ensure water security and support global adaptation goals. A key step in this direction was the adoption of the UAE Global Climate Resilience Framework at COP28, which prioritises "significantly reducing climate-induced water scarcity and enhancing climate resilience to water-related hazards towards a climate resilience water supply, climate resilience sanitation, and access to safe and affordable potable water for all."

What is CR-WASH?

In defining climate resilient WASH, or CR-WASH, this brief draws on the recent Sanitation and Water for All (SWA) definition of CR-WASH. According to SWA (2024), CR-WASH refers to: *"Services that anticipate, respond to, cope with, recover from, adapt to, or transform* ***in response to climate-related events, trends, and disturbances*** *all while striving to achieve and maintain universal and equitable access to safely managed services. This is done even in the face of an unstable and uncertain climate, while minimising emissions where possible and appropriate, and paying special attention to the most exposed and vulnerable groups."*

It also acknowledges that climate resilience depends not only on infrastructure and service delivery, but also on the strength of the wider WASH system, including governance, financing, regulation, and monitoring functions, which reduce vulnerability, enable adaptive decision-making, and sustain inclusive, climate-resilient services over time.

Building on the SWA definition, this brief translates that vision into a set of outcomes. It frames success not as a single milestone, but as the ability to deliver safe, equitable, and sustainable services amidst climate uncertainty, while supporting long-term resilience, inclusion, and impact at scale.

These outcomes reflect both what WASH services must deliver and how the system must evolve to meet the demands of a changing climate over time; the principal outcomes include:

Outcome 1. Reliable and equitable access: Maintaining or expanding universal access to safely managed WASH services under increasing climate stress.

Outcome 2. Climate-informed and risk-responsive: Using climate data, early warnings, and adaptive planning to anticipate and manage shocks/stressors.

Outcome 3. Capable of recovery and adaptation: Building institutional and community capacity to absorb disruptions and adjust services over time.

Outcome 4. Deliberately inclusive: Actively prioritizing the needs and participation of the most exposed and marginalized communities in planning, delivery, and governance.

Outcome 5. Transformative where critical: Redesigning institutions, finance, and delivery models only when incremental change is demonstrably insufficient to achieve resilience and equity goals, acknowledging the higher risk and longer timeframe.

Outcome 6. Low-carbon transition: Systematically reducing emissions from WASH infrastructure and operations where viable, ensuring it does not compromise reliability, equity, or inclusion.

While this guidance focuses on resilience to climate-related hazards, many of the actions it outlines, such as adaptive planning, risk-informed programming, and systems thinking, also help organisations strengthen resilience to other types of shocks and stresses.

The Role of NGOs

Despite the growing momentum to advance CR-WASH, translating high-level commitments, such as the Global Goal on Adaptation, into tangible solutions on the ground can be challenging (Learn more). Tackling these barriers requires coordinated, practical action, and NGOs are key players, often at the frontline of implementation, driving change and delivering CR solutions where they are needed most.

In this guidance note, the range of actions that NGOs can take is broadly framed into two interconnected spheres: the **Sphere of Impact** and the **Sphere of Influence** (Figure 1). These represent the two key areas where NGOs operate and can drive change:

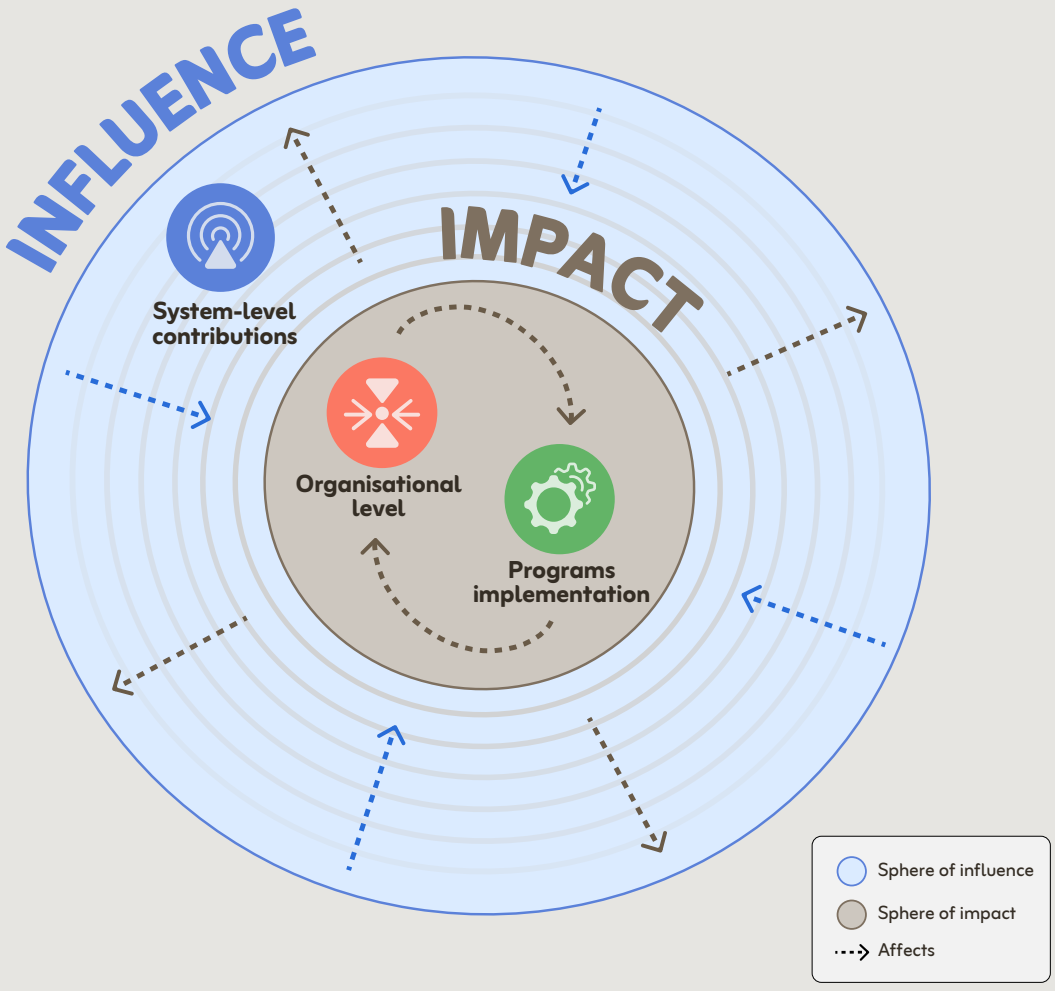
- The **Sphere of Impact** covers what lies within an NGO's direct control, namely its **organisational culture** (including internal strategies, operations, priorities, and ways of working), and its **programmatic approaches** (how it designs, delivers, and monitors interventions).
- The **Sphere of Influence** reflects how NGOs contribute to **system-level change** by shaping the broader enabling environment, including national and global policies, planning processes, financing, and institutional arrangements.

This framing reflects two critical shifts many NGOs are undertaking:

1. from isolated climate-related programmes to full institutionalisation of climate resilience within their own structures and programmes (Sphere of Impact), and
2. from a narrow implementation focus to more deliberate engagement in systems change (Sphere of Influence).

Not all NGOs will engage equally across both spheres. This framing helps organisations identify where they can add the most value, recognising that advancing climate resilience requires both effective delivery and system-level change.

Figure 1.



How to use this Guidance Note

The guidance is organised as a progression, moving from internal organisational shifts to resilient programme delivery and finally to influencing broader systems change. These align with two interconnected spheres in which NGOs operate and can drive change:

> **The Sphere of Impact:** through organisational culture and programmatic approaches

> **The Sphere of Influence:** through system-level contributions

This note is not intended to be followed in a strict sequence. It is designed for flexible, non-linear use.

Readers are encouraged to skip sections that are less relevant and focus on the areas most aligned with their roles, capacities, and organisational context.

The starting point is a

CR-WASH Self-Check

a rapid diagnostic tool to help organisations reflect on their current efforts (whether or not explicitly framed through a climate lens) and to identify gaps or opportunities for deeper integration.

Based on the results of the Self-Check, the guidance is designed to help users take action. Each section presents a set of **practical actions** directly linked to the checklist domains, along with relevant examples, case studies, and tools to support implementation. This structure enables organisations to move from diagnosis to action, focusing on the areas where they are best placed to make meaningful progress.

How to use the CR-WASH Guidance Note?

Applies to all
Organisational

Step 1 → CR Self-Check

Step 2 → Guidance Actions per topic

- Leadership Commitment and Strategic Integration
- Staff Capacity & Internal Know-how
- Cross-departmental Collaboration
- Strategically Manage Financial Resources
- External Engagement

Based on your type of work
Programmatic

Step 1 → CR Self-Check

Step 2 → Guidance Actions per topic

- Programme Design and Planning
- Implementation and Adaptation
- Strengthening Monitoring and Evaluation
- Transition and Exit

Based on your type of work
Systems-Level

Step 1 → CR Self-Check

Step 2 → Guidance Actions per topic

- Elevating WASH in Global Climate and Development Agendas
- Supporting Climate-Responsive Policy and Planning Processes
- Strengthening Institutional Coordination and Key Actors' Capacity for Climate Resilience
- Supporting Government to Mobilise Climate Finance for Resilient WASH
- Improving Climate Risk Data and Adaptive Monitoring Systems
- Enabling Regulation and Accountability for Climate Resilient Services

A guide to building a Climate Resilient

Organisational Culture

Achieving CR-WASH outcomes ideally requires organisational readiness: NGOs must embed climate resilience within their overall culture, governance, policies, and operations, including leadership commitment, staff capacity, and processes. Without this foundation, programmatic efforts risk being fragmented and unsustainable. While the focus of this guidance is on WASH, it encourages NGOs to begin with organisation-wide reflection. Embedding resilience across the institution improves coherence, strengthens programming, and reinforces trust with communities and funders, who increasingly expect organisations to "walk the walk."

To support this process, the guidance is structured in two steps:

STEP 1

is a CR-WASH Self-Check to help NGOs reflect on current practice, and identify gaps or opportunities for deeper integration.

STEP 2

provides a set of actions aligned with each Self-Check domain, offering practical measures, examples, and tools to strengthen climate resilience where it is most needed.

CR-WASH Self-Check

STEP 1

For each section, you will find a checklist with questions that cover resilience from various angles.

- ☑ **If you can tick the box:** Great! Your organisation has this in place.
- ☐ **If you can't tick the box:** Do not worry. This means you should check the relevant section in the guidance note, where you will find actions and tips to help you strengthen that area.

Remember:

- *This is a reflection tool not a test or scorecard.*
- *Not all actions will apply; focus on what is relevant to your work.*
- *Use it flexibly, skip sections or jump to actions that fit your context.*

CR-WASH Self-Check

STEP 1

01 Leadership Commitment and Strategic Integration

About

- [ ] We have held engagement sessions with senior leadership or the board on climate risks.
- [ ] We have made a public climate commitment or pledge that aligns with global frameworks.
- [ ] We have reviewed and updated our Theory of Change or strategic plan to integrate climate resilience.

02 Staff Capacity & Internal Know-how

About

- [ ] We provide annual training on climate resilience principles across teams and roles.
- [ ] We have a shared platform for storing climate-related resources, tools, and lessons learned.
- [ ] We have appointed climate champions or advisory groups to drive internal action and/or we have a staff member with climate expertise/climate resilient WASH expertise.
- [ ] We work with external technical partners to strengthen our climate-related knowledge base.

03 Cross-departmental Collaboration

About

- [ ] We have established a cross-departmental coordination group with climate focal points that meets regularly to align efforts, identify risks, and share learning across teams.

04 Strategically Manage Financial Resources

About

- [ ] We have diversified our funding portfolio to reduce reliance on a single source.
- [ ] We frame WASH as part of a broader climate resilience agenda in proposals and partnerships.
- [ ] We are engaging private sector platforms or companies aligned with water and climate goals.
- [ ] We are actively exploring partnerships to access climate finance (e.g., GCF, Adaptation Fund).
- [ ] We have assessed whether emerging finance models (e.g., carbon credits) are viable for our context and service model.

05 External Engagement

About

- [ ] We participate in CR networks and contribute to knowledge exchange beyond WASH.
- [ ] We have formal partnership agreements with organisations to support long-term CR work.

Take Action

STEP 2

01 Leadership Commitment and Strategic Integration

Go to self-check

Action 1 Leadership and board engagement sessions to align on CR risks and priorities

This action focuses on engagement sessions with senior leadership and board members to build a shared understanding of how climate-related events, trends, and disturbances affect the organisation's mission and impact, including, but not limited to, WASH. Using simple national or regional snapshots, these sessions highlight potential disruptions to services and community outcomes, with the aim of positioning climate resilience as a strategic priority across the organisation. They do not require complex modelling but can instead rely on simplified visuals and story-based communication to make the climate narrative more intuitive.

Goal:
Create the opportunity and space for reflection and shared concern among leadership and reach an agreement that CR must be integrated into future planning.

Resources:
Climate Analytics tools (including the climate risk dashboard, impact explorer, and mitigation potential atlas) can support narrative-building sessions by providing simplified snapshots of climate impacts.

Action 2 Formalise leadership buy-in with a public pledge

This action focuses on formalising leadership buy-in through an externally facing climate commitment that demonstrates the NGO's strategic alignment with global climate and development goals, reinforces accountability, and positions the organisation as a climate-conscious actor in the WASH and broader development space. The process includes drafting a commitment statement that outlines specific goals across three pillars: mitigation, adaptation, and equity while reflecting the organisation's unique mandate and aligning with international frameworks (such as the Paris Agreement, the UNFCCC's Global Goal on Adaptation, and the Sustainable Development Goals). Once finalised and approved by leadership, the commitment should be publicly signed and published on the NGO's website and shared with partners, funders, and networks.

Goal:
Move beyond internal alignment and show public commitment to climate action, helping to build trust with donors, communities, and collaborators.

Resources:
CARE's Climate Justice Commitment is an example of an NGO's public climate pledge that emphasises justice and equity.

Action 3 Integrate CR into global strategic frameworks

The action focuses on updating the organisation's policies, Theory of Change (ToC) and strategic plan to ensure that climate considerations are not treated as add-ons but embedded into the organisation's long-term vision, goals, and operations. The process includes conducting a review of the current frameworks through a 'climate lens' to identify where risks, adaptation, and equity considerations are absent or underdeveloped. Based on this review, the organisation can take two key steps:

- **Revise the Theory of Change** to account for climate-related risks in the problem analysis, adjust assumptions to reflect environmental uncertainty, and either introduce climate resilience as a dedicated outcome or embed it as a cross-cutting enabler across pathways and results.

Goal:
Ensure climate resilience is no longer treated as a parallel concern but is embedded into the NGO's strategic DNA.

- **Adjust the strategic plan** to include objectives that align with national climate priorities, global frameworks such as the Paris Agreement and SDG 13, and the needs of vulnerable populations most impacted by climate shocks.

Resources:
SNV's water security strategy and framework and SHA/UP 2023-2027 global strategy are examples of strategic frameworks.

02 Staff Capacity & Internal Know-how

Go to self-check

Action 1 Climate literacy training to ensure all staff understand CR principles

This action focuses on ensuring that all staff, from leadership to frontline teams, understand CR principles and are equipped to embed CR into programme design, procurement, and community engagement. The organisation can introduce annual training for all staff, covering climate science, disaster preparedness, and emissions reduction strategies within the WASH context. In addition to foundational training, personalised coaching can be provided to key roles, such as programme managers, procurement officers, and field staff to support them in applying climate considerations within their specific responsibilities.

Goal:
Equip staff at all levels with the knowledge and skills to confidently apply CR in their work, ensuring that climate resilience is not only understood but actively practiced across the organisation.

Resources:
WASH focused: The WASH Systems Academy offers self-paced CR-WASH learning modules suitable for all staff. For those seeking more climate-specific content, Another example of a good platform for capacity building is the CARE Climate and Resilience Academy, which offers self-paced courses, learning journeys, trainer packs, and customized training programmes. SWA also maintains a knowledge exchange portal that offers a series of webinars designed to enhance partners' knowledge and capacity for integrating WASH into their strategies and plans.
Non-WASH focused: the Climate Literacy & Action Training provides a five-part series covering: (i) Positive future scenarios and climate justice; (ii) Climate science and high-impact climate solutions; (iii) Carbon calculation and individual action; (iv) Climate change mitigation through a systems approach; (v) Group work and development of a personal action plan. Further information can be obtained by contacting zoya@qs.com.

Action 2 Strengthen knowledge management on CR to centralise climate data

This action focuses on enhancing internal learning and decision-making by centralising climate-relevant data, thereby expanding access to technical and contextual knowledge. Many climate-related insights and case studies already exist across programmes but remain scattered or underutilised. Organising this information into a shared system allows teams to quickly access what works, where, and for whom and encourages learning across sectors, not just within WASH, as approaches and lessons are often transferable.

Goal:
Ensure staff have easy access to climate data, lessons learned, and field-tested practices that support CR programming.

Resources:
GIZ Urban climate Resilience Toolbox is an example of how knowledge can be centralised

Go to self-check

Action 3 Establish climate champions and embed CR into institutional roles

This action focuses on building internal momentum through three reinforcing layers. First, by identifying and supporting staff who are already passionate or skilled in climate resilience, these champions can drive awareness, share practices, and help translate strategy into action across teams. Second, by institutionalising climate resilience through formal integration into job descriptions, performance metrics, and accountability structures across functions. And third, by establishing dedicated climate resilience advisory teams at both global and country levels to provide consistent technical support.

Goal:
Encourage motivated staff to lead, inspire, and support CR thinking across departments and regions.

Action 4 Partner with climate and WASH thought leaders

This action focuses on strengthening technical depth and innovation through partnerships with academic institutions, think tanks, and climate-focused research groups and consultants. These collaborations can provide: (i) access to localised climate models (e.g., rainfall projections, flood maps), (ii) hydrology and engineering input, and (iii) joint applied research.

Goal:
Leverage external expertise to improve the quality, credibility, and context-specific design of CR-WASH interventions.

Resources:
See Case Studies: Leveraging Research Partnerships for CR- WASH in Thyolo, Malawi

03 Cross-Departmental Collaboration in Multi-Sector Organisations

Action 1 Establish cross-departmental coordination meetings

These actions focus on nominating a climate focal point per core sector (WASH, Water Resource Management (WRM), Health, Nutrition, Emergency, etc) (If climate champions were already selected as part of internal capacity efforts, they can take on this role) to participate in a light-touch coordination group. Cross-functional representation is also important, bringing in roles like monitoring and evaluation (M&E), learning, fundraising, and finance to ensure CR is embedded into operations and decision-making.

These focal points will form a coordination group that meets periodically (e.g., every two months) to:

- Identify geographic and programmatic overlaps where climate risks affect multiple sectors
- Share updates on planned activities to coordinate efforts
- Identify opportunities for joint planning or service alignment, particularly in high-risk or underserved areas
- Pilot one or more joint preparedness activities (e.g., submitting a cross-sector proposal)
- Track and review progress on agreed actions and share outcomes with leadership
- Capture and disseminate learning, including both successes and challenges, to inform programme design, proposals, and coordination
- Where pilots are successful, advocate for integration into regular programming

Goal:
Improve coordination between sector teams without adding an administrative burden.

Resources:
See Case Studies : Integration of climate justice and resilience across CARE's development and humanitarian work

04 Strategically Manage Financial Resources

Go to self-check

Action 1 Diversify funding streams to reduce financial risk

This action focuses on reducing financial vulnerability by deliberately broadening the NGO's funding base, especially with streams that support climate resilience and adaptive capacity. A diversified portfolio allows organisations to remain agile in the face of climate shocks, shifting donor priorities, or emergencies.

Goal:
Strengthen long-term financial stability by accessing a mix of flexible, and long-term funding.

Action 2 Position WASH as part of a broader CR agenda

This action focuses on framing WASH as a critical piece of multi-sectoral climate resilience, enabling NGOs to tap into funding from sectors like agriculture, disaster risk management, and ecosystem and water resource management. Many climate resilience solutions lie outside traditional WASH mandates but directly affect WASH outcomes. NGOs should actively build this framing into proposals, partnerships, and strategies.

Goal:
Expand access to climate-related funding by demonstrating how WASH contributes to wider resilience objectives, including food systems, water security, and local adaptation.

Resources:
Facilities like Nature for Water could be relevant entry points.

Action 3 Engage private sector water stewardship initiatives

This action focuses on building partnerships with companies committed to sustainable water use and WASH access, particularly through the CEO Water Mandate and WASH4Work platform. These platforms are designed for private-sector actors but rely on credible NGOs to implement on-the-ground solutions.

Goal:
Unlock new, flexible funding by aligning with companies' Environmental, Social and Governance (ESG) or water stewardship goals.

Resources:
Some examples of how companies are taking their commitment into action are Colgate's 2025 Water Strategy (in which they showcase their collaboration with Water for People) or Diageo's Water Stewardship Strategy.

Action 4 Strategically navigate access to climate finance

This action focuses on helping NGOs access climate finance by aligning their work with national adaptation priorities and partnering with accredited entities. Most major climate funds (e.g. GCF, Adaptation Fund) channel resources through governments or large institutions. NGOs rarely access these funds directly but can play a key role as implementing partners. By demonstrating climate relevance and delivery capacity, NGOs can position themselves to contribute to funded programmes without needing direct accreditation.

Goal:
Strengthen the organisation's ability to strategically manage financial resources by unlocking access to climate adaptation funding through alignment, readiness, and partnership.

Resources:
WASH and climate: Policy and financing (dis)connects

Go to self-check

Action 4 Pilot alternative funding mechanisms (where relevant)

This action invites NGOs to consider emerging financing mechanisms that may offer new income streams or long-term sustainability but only where context, capacity, and service models make them viable. These options typically require partnerships, technical support, and long-term commitment. Examples include carbon credits: NGOs with service delivery models that reduce emissions can earn revenue through verified carbon credits. However, certification is complex and only feasible where emissions savings are measurable and sustained at scale.

Goal:
Support strategic financial management by testing context-appropriate funding models.

Resources:
See Case Studies : Financing Climate-Smart Sanitation through Carbon Offsetting

05 External Engagement

Action 1 Engage in external climate resilience learning networks and platforms

This action focuses on positioning the NGO as a visible and credible actor in the climate resilience space through active engagement and thought leadership. The NGO should participate in and co-host events, webinars, and learning exchanges with external organisations to share tools and practices. In parallel, it should adopt a more deliberate advocacy approach by producing blog posts, opinion pieces, or white papers, and contributing to relevant panels or policy dialogues. The organisation should participate in and co-host events, webinars, and learning exchanges not only within the WASH sector, but across adjacent fields such as climate adaptation, disaster risk reduction, environment, and agriculture. Breaking sector silos is essential for designing integrated, resilient solutions.

Goal:
Increase institutional awareness of sectoral trends and best practices and foster collaborative relationships beyond the organisation.

Resources:
Examples of coalitions that NGOs could join (WASH and non-WASH) SWA Climate Task Team, Climate Resilient Sanitation Coalition (CRSC), Water and Climate Coalition, Global resilience partnership, Adaptation Action coalition

Action 2 Formalise partnerships for long-term collaboration

This action focuses on moving beyond ad hoc collaboration by establishing formal partnership agreements with organisations that bring complementary strengths, whether technical, financial, or policy-related. The NGO should clarify shared objectives and co-develop Memorandums of Understanding (MOUs) or joint work plans. Partnerships should be periodically reviewed to align with evolving climate agendas and local priorities.

Goal:
Strengthen collaboration with external partners and the ability to jointly pursue larger-scale opportunities, including co-funding proposals, technical pilots, or national policy influence.

Resources:
One for All offers an example (not limited to CR) of NGOs aligning for collective impact.

A guide to strengthen CR across

WASH Programming

Achieving CR-WASH outcomes extends beyond one-off climate-focused programmes; it requires embedding climate resilience throughout the full lifecycle of WASH programming. This means systematically applying a climate lens from assessment and design through to implementation, monitoring, and learning. Programmatic integration is where resilience becomes tangible and measurable on the ground.

To support this process, the guidance is structured in two steps:

STEP 1

is a CR-WASH Self-Check to help NGOs reflect on current practice and identify gaps or opportunities for deeper integration.

STEP 2

provides a set of actions aligned with each Self-Check domain, offering practical measures, examples, and tools to strengthen climate resilience where it is most needed.

CR-WASH Self-Check

STEP 1

For each section, you will find a checklist with questions that cover resilience from various angles.

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CR-WASH Self-Check

STEP 1

01 Programme Design and Planning

About

- [ ] We have conducted climate risk assessments and adjusted programmes design accordingly.
- [ ] We have applied a "no regret" lens to select interventions that perform well across a range of uncertain climate futures.
- [ ] We have estimated the additional costs of resilience measures and quantified the avoided losses.
- [ ] We have co-designed the programme with local communities and stakeholders.
- [ ] We have aligned our programme with national and sub-national climate and WASH strategies and engaged relevant authorities.
- [ ] We have identified and documented opportunities to integrate WASH with health, nutrition, Disaster Risk Reduction (DRR), livelihoods, and/or environmental programmes.
- [ ] We have incorporated nature-based solutions and water resource management into our WASH design to protect ecosystem health.

02 Implementation and Adaptation

About

- [ ] We have developed flexible work plans and budgets that allow for activity revisions, timeline shifts, and fund reallocation in response to climate risks.
- [ ] We have discussed or negotiated flexible funding terms with our donors.
- [ ] We have defined clear decision triggers (e.g., thresholds or alerts) that guide timely implementation adjustments when risks materialise.

03 Strengthening Monitoring and Evaluation (M&E)

About

- [ ] We have developed climate resilience metrics that reflect performance across shocks and capture financial or adaptive capacity outcomes.
- [ ] We have used M&E data to understand what worked or failed during climate disruptions and applied those lessons to future WASH programme design.

04 Transition and Exit

About

- [ ] We have engaged government stakeholders to explore co-financing options and aligned our programme with national development or climate goals.
- [ ] We have developed a phased exit and resilience handover strategy that includes local capacity assessments, continuity plans, and post-programme support.

Take Action

STEP 2

01 Programme Design and Planning

Go to self-check

Action 1 Integrate climate risks in WASH programme design

This action focuses on embedding climate considerations into the programme design process from the outset, rather than treating them as add-ons in later stages of implementation. The NGO should systematically identify relevant climate hazards (e.g., floods, droughts, extreme heat), assess vulnerabilities in the target area, and adjust programme objectives, approaches, and infrastructure choices to reflect those risks.

Goal:
Ensure all WASH programmes account for climate hazards and vulnerabilities from the outset.

Resources:
GWP and UNICEF guidance note on climate risk assessment, the Bristol University tool known as 'How Tough is WASH,' – primarily used to evaluate the resilience of infrastructure – and the WaterAid "integrating climate resilience with WASH system strengthening on vulnerability and resilience assessment" – focused on assessing vulnerability at the system level. For assessment based on scientific modelling, these global platforms are available to assist in identifying hazards, including site-specific climate reports, the Water Risk Filter, and the World Bank risk portal.

For community-based approaches that emphasise participatory processes and collaborative efforts over complex scientific data, CARE has developed the CVCA handbook. This guide supports the implementation of such methods by fostering peer dialogues and institutional cooperation among various stakeholders.

Action 2 Apply "No-Regret filter" to programme design

This action focuses on embedding no/low regret thinking into the early stages of programme design, helping NGOs choose interventions that are robust across a range of uncertain futures. In this context, "regret" refers to the performance gap between the selected intervention and the best possible option for a given future scenario. The goal is to minimise regret by designing programmes that still deliver value even if expected climate risks evolve differently than predicted.

Goal:
Minimise regret in design by prioritising interventions that offer strong performance across a range of possible climate futures.

Resources:
The Decision Tree Framework

Action 3 Conduct a climate cost analysis

To design a climate-resilient WASH programme, NGOs should assess the additional costs associated with resilient design measures compared to standard approaches. NGOs should then quantify the likely avoided losses if resilient measures are adopted. This investment case can then be used to engage funders with a clear value proposition grounded in avoided losses and long-term impact.

Goal:
Understand the financial requirements of integrating CR into WASH programmes and prove the ROI of climate resilience.

Resources:
An example on the Economic analysis of the costs of inaction in Thyolo District, Malawi

Go to self-check

Action 4 Co-design programmes with local communities and stakeholders

This action focuses on engaging community members, local leaders, and local actors early in the programme cycle through participatory tools, such as vulnerability mapping, risk ranking, and design workshops and embeds principles of Gender Equity and Social Inclusion (GESI) throughout: from consultation to training to equitable access to benefits. Co-design strengthens both social cohesion and operational success.

Goal:
Build local ownership and long-term sustainability by ensuring programmes reflect community priorities and local knowledge.

Resources:
CRiSTAL Tool (Community-based Risk Screening Tool)
See Case Studies : WASH Voices for Empowerment (WAVE) 2- Community-Driven CR-WASH in Western Province, Papa New Guinea.

Action 5 Align programmes with the government's Climate and WASH Strategies

This action focuses on engaging relevant government agencies from the outset to ensure that programmes reinforce and complement existing strategies. Formalising collaboration through mechanisms like MOUs, joint implementation committees, or shared monitoring systems increases legitimacy, secures policy buy-in, and positions programmes for long-term success.

In fragile or politically complex areas, NGOs should apply conflict sensitivity and Do No Harm principles: (i) understand power dynamics, resource tensions, and social hierarchies, and (ii) assess whether the programme could unintentionally worsen existing inequalities or conflicts.

Goal:
Strengthen strategic coherence and scale-up potential by aligning programmes with national and sub-national policies and plans.

Resources:
See Case Studies : Strengthening Climate-Resilient WASH Governance in Rural Nepal

Action 6 Integrate WASH with health, nutrition, livelihoods, Disaster Risk Reduction

Building climate resilience requires moving beyond siloed WASH delivery. WASH interventions should be intentionally designed to support climate resilience across sectors, especially those that directly affect or depend on water access, quality, and infrastructure. This includes:

- **Health and nutrition:** Align hygiene promotion with public health goals (e.g. infection prevention, cholera preparedness, child undernutrition).
- **Agriculture:** Support small-scale enterprises and climate-sensitive income sources (e.g. greywater reuse in agriculture, water access for informal markets).
- **Disaster risk reduction:** Link WASH programming with early warning systems, contingency planning, and community-based disaster preparedness.
- **Environmental management:** Coordinate with ecosystem-based adaptation and catchment protection efforts to ensure upstream-downstream resilience.

NGOs should facilitate joint assessments and planning sessions across sectors to identify synergies, reduce duplication, and design WASH interventions that contribute to broader system resilience, including environmental, economic, and institutional dimensions.

Goal:
Maximise climate resilience and co-benefits by embedding WASH into broader systems.

Resources:
See Case Studies : Strengthening Water Resources Management for Climate-Resilient and Inclusive WASH Services in Cambodia
Opportunities for sustainable sanitation in climate action

Go to self-check

Action 7 Connect WASH programming to freshwater ecosystem health

This action focuses on aligning WASH efforts with the sustainability of the freshwater ecosystems they rely on. Climate-resilient WASH cannot be achieved without protecting and understanding the status of local water resources both in terms of quantity and quality.

Key approaches include:

- **Nature-based solutions:** Identify and implement interventions such as wetland restoration, soil infiltration systems, or reforestation to buffer WASH systems against floods, droughts, or erosion.
- **Water resource monitoring:** Measure and track trends in groundwater levels, water quality, and seasonal flows to inform WASH planning and avoid over-extraction or pollution.
- **Catchment governance:** Ensure local WASH actors are actively engaged in catchment management forums, water user associations, or environmental planning boards to align services with broader water resource management goals.

Goal:
Strengthen the long-term resilience and sustainability of WASH services by anchoring them in the health and governance of the freshwater systems they depend on.

Resources:
Guidance on this is available in UNICEF's publication, "Guidance Note: How UNICEF Regional and Country Offices Can Shift to Climate-Resilient WASH Programming."

02 Implementation and Adaptation

Action 1 Develop flexible work plans and budgets

This action focuses on developing programmes that can adapt to evolving climate risks. NGOs should design workplans and budgets with built-in flexibility, including options to revise activities, shift timelines, and reallocate funds as risks evolve.

Goal:
Increase the NGO's capacity to respond to unforeseen climate-related disruptions without compromising programme outcomes.

Resources:
USAID CLA Adaptive Budgeting Framework

Action 2 Negotiate flexible funding arrangements with donors

Engage donor partners to advocate for more adaptive funding frameworks. This includes introducing contingency clauses, allowing no-cost extensions during climate-related disruptions, and shifting away from rigid log frames toward adaptive results frameworks. NGOs (if relevant) can use past examples of climate disruptions to demonstrate the necessity of flexibility and provide donors with a case for resilience investments by linking them to cost avoidance (e.g., damage prevention, reduced downtime).

Goal:
Enhance programme flexibility in response to shifting risks or environments without jeopardising funding stability.

Go to self-check

Action 3 Build decision-making triggers ("if-then" scenarios)

Following action 2, this step focuses on defining clear "if-then" scenarios to guide timely adjustments during implementation. These triggers, such as thresholds for water access or flood alerts, should be linked to risk monitoring systems and aligned with contingency plans to enable rapid, coordinated responses when conditions change.

Goal:
Enable proactive and timely responses to climate risks during programme implementation.

Resources:
Forecast-based action

03 Strengthening M&E

Action 1 Research and develop metrics for measuring climate resilience

This action focuses on identifying practical indicators that reflect progress toward climate resilience in WASH programmes. In high-risk contexts, build tiered, scenario-based metrics that reflect how WASH systems perform before, during, and after shocks. Link indicators directly to financial resilience (e.g., cost avoided, downtime minimised) and local decision-making. In lower-risk settings, the focus can shift toward measuring adaptive capacity, such as community preparedness or institutional ability to adjust plans.

Goal:
Equip staff with metrics to track progress in climate resilience.

Resources:
UNICEF-GWP M&E guideline

Action 2 Use M&E data to learn from past experiences and adapt future programmes for better outcomes

This action focuses on using M&E data not just for compliance, but as a tool for learning and improving future climate-resilient WASH programming. The NGO should regularly review data to understand what worked, what didn't, and why, particularly during climate-related disruptions. Insights from past implementations should inform future programme design, budgeting, and risk mitigation strategies, helping to build more responsive and effective programmes over time.

Goal:
Strengthen programme's effectiveness by embedding learning from past implementation into the design of future climate-resilient WASH programmes.

04 Transition and Exit

Go to self-check

Action 1 Initiate dialogue with government on co-financing opportunities

This action involves initiating conversations with relevant government ministries or local authorities to explore co-financing mechanisms for WASH programmes, by showcasing how the programme aligns with national development and climate adaptation goals. NGOs can prepare a simple "co-financing pitch deck" that includes projected adaptation costs, expected benefits, and opportunities to integrate into national budget cycles or sector-wide approaches.

Goal:
Lay the foundation for joint ownership and long-term sustainability of WASH services through government co-financing.

Action 2 Design and embed a phased and responsible exit and resilience transition strategy

This action focuses on building a clear, phased exit strategy from the outset, one that transfers ownership, safeguards resilience investments, and maintains service continuity. NGOs should begin by assessing the institutional and financial capacity of local actors to manage climate-related risks and by developing a joint "resilience handover plan" that includes a continuity plan with clear triggers and fallback options. NGOs can also establish post-programme support systems (e.g., a support hotline and scheduled post-programme evaluations at 12 and 24 months after exit).

Goal:
Ensure climate-resilient WASH services are locally sustained and effectively managed.

A guide to strengthen CR through

NGO's Sphere of Influence

Climate resilience in the WASH sector depends significantly on broader systems and the capacity and willingness of governments and other stakeholders to act. Through their advocacy, convening power, and technical expertise, NGOs can help shape policies, influence planning, and enhance sector-wide coordination. This broader "Sphere of Influence" is where NGOs can push for CR-WASH principles to be integrated into the wider enabling environment and catalyse change at scale.

To support this process, the guidance is structured in two steps:

STEP 1

is a CR-WASH Self-Check to help NGOs reflect on current practice and identify gaps or opportunities for deeper integration.

STEP 2

provides a set of actions aligned with each Self-Check domain, offering practical measures, examples, and tools to strengthen climate resilience where it is most needed.

CR-WASH Self-Check

STEP 1

For each section, you will find a checklist with questions that cover resilience from various angles.

- ☑ **If you can tick the box:** Great! Your organisation has this in place.
- ☐ **If you can't tick the box:** Do not worry. This means you should check the relevant section in the guidance note, where you will find actions and tips to help you strengthen that area.

Remember:

- *This is a reflection tool not a test or scorecard.*
- *Not all actions will apply; focus on what is relevant to your work.*
- *Use it flexibly, skip sections or jump to actions that fit your context.*

CR-WASH Self-Check

STEP 1

01 Elevating WASH in Global Climate and Development Agendas

About

- [ ] We support local voices to shape national and global climate discussions.
- [ ] We contribute evidence to global guidance and standards (e.g., WHO, UNICEF, GCF).
- [ ] We advocate for WASH in global and regional climate forums (e.g., COP, SWA, AMCOW).

02 Supporting Climate-Responsive Policy and Planning Processes

About

- [ ] We support governments in integrating resilience into national WASH policies and legal frameworks.
- [ ] We engage in National Adaptation Plan (NAP) and Nationally Determined Contribution (NDC) processes to ensure WASH inclusion.
- [ ] We help embed climate risk assessments and adaptive planning into WASH strategies and investment plans.

03 Strengthening Institutional Coordination and Key Actors' Capacity for Climate Resilience

About

- [ ] We support governments in mapping institutional roles and setting up coordination mechanisms for WASH and climate adaptation.
- [ ] We help strengthen local service providers' capacity to deliver resilient WASH services.
- [ ] We build district-level capacity for planning and managing climate-resilient WASH.
- [ ] We support regulators in enforcing resilience standards, service continuity, and accountability.

04 Supporting Government to Mobilise Climate Finance for Resilient WASH

About

- [ ] We advocate for WASH to be recognised and funded as part of climate finance portfolios.
- [ ] We help governments assess readiness, align with national priorities, and develop bankable proposals.
- [ ] We engage private sector actors in blended finance approaches for resilient WASH.

05 Improving Climate Risk Data and Adaptive Monitoring Systems

About

- [ ] We help integrate climate resilience indicators into WASH monitoring systems.
- [ ] We generate and use localised climate risk data to inform WASH planning and decision-making.

06 Enabling Regulation and Accountability for Climate Resilient Services

About

- [ ] We support regulators and utilities to strengthen standards, financial models, and accountability for climate-resilient WASH.

Take Action

STEP 2

01 Elevating WASH in Global Climate and Development Agendas

Go to self-check

Action 1 Advocate for WASH in global and regional climate and development dialogues

This action focuses on NGOs actively advocating for the inclusion of WASH as a critical component of climate adaptation and development agendas in global and regional platforms, such as COP, SWA High-Level Meetings, AMCOW, and the UN Water Conference. This includes not just participation, but strategic engagement through joint statements, side events, thematic groups, and speaking roles that elevate WASH priorities and bring evidence into policy discussions.

Goal:
Ensure CR-WASH is positioned as a central adaptation and development priority.

Resources:
See Case Studies: Positioning Climate-Resilient WASH in the Global Goal on Adaptation (GGA)

Action 2 Contribute evidence and learning to global guidance and standards

NGOs can share programmatic learnings, tools, and case studies through global publications, consultations, or joint research initiatives. Contributing to guidance documents, such as WHO, UNICEF, or GCF frameworks, helps ensure WASH is meaningfully included in the evolving climate policy landscape.

Goal:
Influence the frameworks and tools used to guide donor and government decision-making.

Action 3 Engaging communities and amplifying local voices

This action involves equipping local voices with platforms and tools to share their experiences through blogs, videos, exhibitions, or testimony at forums. NGOs can partner with grassroots organisations, media outlets, or national campaigns to co-create stories that make climate resilience tangible and human. This helps shift global narratives and donor perceptions. NGOs can facilitate local voices being heard in strategic global and/or national processes by identifying community-based organisations (CBOs) and citizen champions and supporting them financially and logistically to attend events.

Goal:
Elevate community voices to influence narratives that shape CR-WASH policies and investments.

02 Supporting Climate-Responsiveness in National Policy and Planning Processes

Go to self-check

Action 1 Support the integration of resilience into national WASH policies and legal frameworks

NGOs can engage in policy review processes to ensure climate risks and adaptation are built into the vision, priorities, and implementation strategies of WASH policies. This includes providing evidence to policymakers on the costs of CR WASH, the costs of inaction and the need to incorporate climate resilience into WASH programming, as well as offering technical support and organising stakeholder consultations. It also includes helping to ensure that WASH laws align with related legislation, such as disaster risk management, land use, and public health.

Goal:
Help governments turn climate commitments into real action by updating WASH policies and legal frameworks to include resilience.

Resources:
See Case Studies: NEWSAN Champions Climate-Smart Water & Sanitation in Nigeria

Action 2 Engage in the National Adaptation Plan (NAP) and the Nationally Determined Contribution (NDC) process

NGOs can play a role throughout the NAP and NDC cycles by advocating for the inclusion of WASH from the outset, contributing local data on climate vulnerabilities and risks, and supporting the appraisal of adaptation options that reflect frontline realities. They can work alongside government ministries to align WASH strategies with national climate goals, assist in drafting relevant content for NAPs and NDCs, and support the costing and prioritisation of climate-resilient WASH interventions. NGOs can also strengthen monitoring and accountability by incorporating community-level indicators, promoting participatory tracking of adaptation outcomes, and contributing to iterative reviews. This engagement ensures WASH is treated as a core part of climate planning and positions the sector to access climate and carbon finance.

Goal:
Ensure WASH is included in NAPs and NDCs as a key part of the country's climate adaptation and development priorities.

Resources:
Integrating CR-WASH into NAPs and NDCs

Action 3 Integrate Climate Risk assessments and flexible planning into WASH strategies

NGOs can support governments by helping embed climate risk assessments directly into WASH strategies and investment planning. This includes facilitating local-level mapping exercises that combine community knowledge with existing hazard data to identify where services are most exposed. Beyond diagnostics, NGOs can also promote the shift from short-term planning toward longer-term, adaptive strategies. This means advocating for plans with 5–20-year horizons, built-in flexibility to respond to emerging risks, and scenario-based stress testing.

Goal:
Equip national and local authorities with the tools and mindset to plan WASH services that can withstand future climate shocks and uncertainties.

Resources:
See Case Studies: Evidence-Based Coordination for Climate-Health Action in Uganda

03 Strengthening Institutional Coordination and Key Actors' Capacity for Climate Resilience

Go to self-check

Action 1 Clarify institutional roles and coordination mechanisms

NGOs can support national governments and local authorities in mapping existing institutional mandates related to WASH, climate adaptation, WRM, and DRR. Facilitate joint planning workshops to clarify overlapping functions, establish formal coordination mechanisms (e.g., inter-ministerial task forces), and define responsibilities for resilience across agencies. NGOs can provide technical support in drafting coordination protocols and identifying shared performance targets to facilitate cross-sector alignment.

Goal:
Ensure WASH and climate-related institutions at national, regional, and local levels have clearly defined mandates and coordination structures to reduce duplication, close gaps, and respond effectively to climate risks.

Action 2 Strengthen the capacity of service providers to deliver CR WASH services

NGOs can partner with local utilities and rural service providers to identify and address capacity gaps in climate risk management. Support training programmes on climate-smart asset management, scenario-based contingency planning, tariff modelling for risk, and customer feedback during disruptions. Assist in setting up human resources (HR) systems for staff retention, performance monitoring, and crisis readiness. NGOs can also co-develop operation and maintenance (O&M) toolkits that reflect climate stressors and integrate adaptive measures.

Goal:
Equip service providers with the skills, systems, and tools to manage technical, financial, and customer service functions in a changing climate context.

Action 3 Build institutional capacity at the district and subnational levels

NGOs can support district-level WASH offices to strengthen HR systems (e.g., staffing, training, supervision, performance management). Provide technical assistance for conducting local climate risk assessments and integrating findings into service delivery and investment decisions. NGOs can also facilitate exchange visits and peer learning among districts facing similar climate risks.

Goal:
Ensure local governments and decentralised service authorities have adequate human and technical capacity to plan and manage climate-resilient WASH services.

Action 4 Enable regulators to enforce resilience and accountability

NGOs can collaborate with regulators to draft or revise climate-resilient service standards, including guidelines on emergency preparedness, pro-poor service continuity, environmental protection, and tariff adjustments based on risk. NGOs can also support the development of benchmarking systems and community feedback channels that help regulators monitor progress and enforce compliance.

Goal:
Strengthen the role of regulators in ensuring service providers plan for and maintain service continuity, equity, and safety in the face of climate-related disruptions.

04 Supporting Government to Mobilise Climate Finance for Resilient WASH

Go to self-check

Action 1 Advocate for increased climate-aligned WASH financing

NGOs can play a critical role in shaping how climate finance mechanisms recognise and support WASH. Their recent efforts have already contributed to major shifts (for example, by working with the Green Climate Fund (GCF) to develop its first WASH investment guidance and supporting the creation of new sanitation-specific guidance). By continuing to engage with funders, provide technical input, and build evidence, NGOs can ensure that WASH is treated as a credible and climate-relevant investment area particularly in relation to adaptation, health, and equity outcomes.

Goal:
Make the case for WASH as a high-impact, climate-critical investment.

Resources:
GCF: Practical guidelines for designing climate-resilient sanitation projects
See Case Study: Incentivising scale up and investment in climate-resilient sanitation

Action 2 Support government access to climate finance for climate-resilient WASH

NGOs can play a strategic role in helping governments secure climate finance for WASH by strengthening readiness, aligning programmes with national climate priorities, and developing bankable proposals. This includes:

- **Assessing readiness:** Reviewing financial systems, institutional capacity, and planning frameworks to identify gaps in accessing climate finance (e.g. through GCF or the Adaptation Fund) and facilitating consultations to understand barriers like limited proposal-writing expertise or unclear programmes pipelines.
- **Aligning with national priorities:** Helping governments position WASH within climate strategies and funding proposals by preparing climate rationales, identifying co-benefits (e.g. health, equity), and ensuring alignment with approved formats and metrics.
- **Developing investment-ready concepts:** Supporting programme preparation through pre-feasibility studies, risk-return analyses, and structured proposal development that meets funders' expectations including public and private actors.

Goal:
Increase the flow of climate finance to WASH by supporting governments to strengthen readiness, align with national climate plans, and prepare high-quality proposals.

Resources:
GCF Readiness Programme Toolkit, GCF Project Preparation Facility Guidance, UNDP Guide to Preparing Project Proposals for Climate Finance

Action 3 Engage private sector actors in blended finance approaches

This action involves identifying entry points for private sector engagement (e.g., in service delivery, infrastructure co-financing, or technology innovation), facilitating partnerships, and promoting risk-sharing instruments such as guarantees or resilience bonds. NGOs can play a role in convening dialogues and designing pilot initiatives that build trust and show commercial viability.

Goal:
Expand the financing pool for resilience by attracting private investment alongside public and donor funds.

Resources:
Nairobi water fund

05 Improving Climate Risk Data and Adaptive Monitoring Systems

Go to self-check

Action 1 Integrate climate-resilience indicators into WASH monitoring systems

NGOs can support government and utility monitoring teams in embedding resilience indicators (aligned with the WHO/UNICEF's JMP/GLAAS global review) into their everyday data systems. This could include metrics on service continuity during extreme weather, the existence of utility contingency plans, flood-proof or drought-resistant infrastructure, and emergency access to water. The aim is to build resilience monitoring into standard reporting cycles, enabling better planning and transparency.

Goal:
Ensure climate resilience is tracked as part of national and sector-level monitoring, not as an afterthought.

Resources:
JMP/GLAAS review of indicators for global monitoring of climate resilient WASH

Action 2 Generate and use localised climate risk data to inform WASH planning

NGOs can facilitate local climate risk assessments that integrate existing meteorological data, community-level observations, and data from service providers. The goal is to make climate risks visible and actionable in district and utility-level WASH planning, especially in underserved areas.

Goal:
Improve decision-making by grounding WASH plans in location-specific climate risks and community vulnerabilities.

06 Enabling Regulation and Accountability for Climate Resilient Services

Action 1 Strengthening and Promoting Regulatory Frameworks for CR-WASH

NGOs can play a catalytic role in supporting the development and use of regulatory mechanisms that foster climate resilience. This includes working with regulators, sector agencies and associations of regulators to co-develop practical standards, guidelines, and oversight tools. Key areas of support include:

- **Technical support to regulators** in drafting or updating resilience-oriented guidelines on service continuity, pro-poor access, environmental sustainability, and health and safety under climate stress.
- **Advocacy for climate-smart tariff setting,** encouraging financial models that integrate long-term risk scenarios and enable flexibility for emergency adaptation, while protecting affordability.
- **Capacity building for utilities** to meet new risk management requirements, including scenario planning and building financial buffers.
- **Support for reporting on resilient capacity** systems that include resilience benchmarking, data verification, and regular sector performance updates.
- **Facilitation of customer feedback loops** to gather insights during climate-related disruptions and ensure accountability to users.
- **Promotion of performance-based incentives and sanctions,** such as resilience awards or penalties for non-compliance with safety and continuity standards.

Goal:
Strengthen regulatory systems to ensure service providers can anticipate, withstand, and adapt to climate-related shocks, while maintaining transparency, service quality, and equity.

Case Studies

Staff Capacity and Internal Know-how

Action 4. Partner with climate and WASH thought leaders

Case Study Leveraging Research Partnerships for CR- WASH in Thyolo, Malawi

Led by Self Help Africa (SHA) with contributions from University of Bristol
Funded by Co-op UK, The One Foundation, and Thyolo District Government
When and Where 2023–2024 | Thyolo District, Malawi

Why it matters WASH infrastructure in Thyolo is increasingly exposed to droughts, floods, and cyclones, with severe impacts on schools, clinics, and low-income households. SHA saw the need for not just stronger infrastructure, but deeper internal capacity to interpret climate risks, use economic evidence, and design resilient WASH strategies. To meet this need, SHA leveraged a research partnership with academic and technical experts to collaborate on study outputs and to embed new ways of thinking and working across the team.

What was done

Academic collaboration	The study was designed and delivered with input from the University of Bristol and a Malawian climate/WASH consultant, strengthening technical rigor and local relevance. With support from WASH economist Dr. Guy Hutton, the study estimated long-term costs of inaction and benefits of resilient infrastructure, critical for advocacy and planning.
Localized climate analysis	The team applied spatial flood risk modelling and water-point overlay analysis to identify WASH assets most vulnerable under current and future climate scenarios.
Applied research design	The process included 488 field surveys, stakeholder interviews, and participatory validation, bridging technical insights with real-world user experiences. This was not just data collection, it was a learning process that helped staff better understand how to connect community-level experiences with technical findings.
Knowledge sharing	Co-produced outputs (including the final study brief) created a shared evidence base for future investments in CR-WASH.

Key takeaways

- Research partnerships can go beyond data collection to accelerate internal capacity, shift organisational practice, and embed climate resilience thinking in day-to-day WASH programming.
- The partnership model used in Thyolo combined global technical expertise with local relevance, adding depth, innovation, and legitimacy to Thyolo's climate-resilient WASH planning.
- NGOs can leverage academic collaboration not just for evidence generation but as a deliberate strategy to grow in-house know-how and improve the quality of climate-resilient WASH programming.

Source
Nijharwan, A., Tomoka, S., Kawala, C., Tillett, W., Hutton, G. (2024): Beyond forecast: Study on Climate Risk Assessment of WASH Services in Thyolo District, Malawi Study Brief, November 2024
Read more

Other case studies on "Staff Capacity & Internal Know-how"
Academic/NGO Collaboration to Understand Climate Change and Disaster Resilience Implementation in Bagerhat District, Bangladesh
Read more

Cross-Departmental Collaboration in Multi-Sector Organisations

Action 1. Establish cross-departmental coordination meetings

Case Study — Integration of climate justice and resilience across CARE's development and humanitarian work

Led by CARE Climate Justice Center

When and Where Strategic shift initiated around 2020 with ongoing efforts across global programs

Why it matters As climate impacts intensify, siloed approaches within NGOs limit their ability to design integrated, resilient solutions. CARE recognized the need to bridge internal gaps between teams focused on water, climate, food systems, and livelihoods. By creating cross-cutting roles and shared strategies, CARE began the process of aligning its internal architecture to respond to climate change more holistically, including WASH programming.

What was done

Strategic alignment	CARE developed a Climate Justice Strategy which is part of the CARE 2030 Vision, providing common direction for cross-sector work.
Cross-team roles	Staff members are positioned across teams, acting as internal connectors to integrate climate considerations into WASH, water resources management, and proposal development.
Internal technical support	CARE HQ and regional experts support country offices through mentoring and training, helping them implement climate assessments and apply integrated design tools.
Knowledge sharing	Internal platforms like the Climate & Resilience Academy centralize knowledge, lessons learned, and high-level climate indicators to inform internal collaboration.

Key takeaways

- CARE's experience shows that formal coordination spaces are essential to break silos and drive integrated climate action.
- Having a shared strategy, regular interaction, and dedicated staff connectors helps keep climate resilience front and centre across programs, including WASH.
- NGOs aiming to integrate climate across departments should invest in both structures (e.g. meetings, roles, platforms) and strategy to enable consistent collaboration.

Source
CARE's official website and interview with CARE (December 2023)

Strategically Manage Financial Resources

Action 2. Pilot alternative funding mechanisms (where relevant)

Case Study Financing Climate-Smart Sanitation through Carbon Offsetting

Led by SOIL Haiti

When and Where Haiti, 2019–2023 with ongoing partnerships.

Why it matters SOIL's container-based sanitation (CBS) and composting model not only delivers dignified sanitation services but also achieves significant greenhouse gas (GHG) emission reductions (~1 ton CO_2e per household annually), opening a pathway to translate climate impact into a new revenue stream, enhancing the financial sustainability and scalability of sanitation services in a resource-constrained setting.

What was done

Research partnership	Collaborated with the University of California, whose peer reviewed study published in Nature Climate Change quantified SOIL's mitigation potential, validating SOIL's model as climate-positive sanitation approach.
Carbon offsetting strategy	SOIL opted out of expensive formal carbon market accreditation. Instead, it co-developed direct climate partnerships with Global Water Intelligence (GWI), where event attendees offset their carbon footprint by supporting SOIL's services directly (100% of funds go to SOIL).
Innovative finance streams testing	Exploring formal carbon finance structures (including carbon credits) using its empirical emission reduction data to create a credible climate-offset product. This included engaging with carbon finance consultancies (e.g., South Pole) and sector alliances such as the Container-Based Sanitation Alliance (CBSA) to assess feasibility across multiple operators.
Resource mobilization and business integration	SOIL integrated carbon-based funding alongside existing income: its EkoLakay sanitation service, compost sales, donor grant support, and the carbon partnerships strengthen the financial model and reduce dependency on subsidies.

Key takeaways

★ SOIL demonstrates how small-scale, climate-positive sanitation services can transform into sustainable enterprises by credibly quantifying GHG reductions and partnering directly with climate-focused funders. By bypassing high-cost carbon market accreditation and engaging in direct-offset partnerships, SOIL strategically manages resources while piloting innovative finance mechanisms. This approach offers a replicable model for organizations working at the intersection of sanitation, soil carbon, and climate finance.

Source
https://www.oursoil.org/carbon-offsetting

Read more

Programme Design and Planning

Action 4. Co-design projects with local communities and stakeholders

Case Study: WASH Voices for Empowerment (WAVE) 2- Community-Driven CR-WASH in Western Province, Papa New Guinea

Led by World Vision, Papua New Guinea (PNG)
Funded by Water for Women Fund (DFAT Australia)
When and Where 2023–2024 | South Fly and Delta Fly, Western Province, Papa New Guinea

Why it matters Climate impacts like unreliable rainfall, flooding, and tidal surges threaten water and sanitation access in remote communities of Western Province, PNG. WAVE 2 scaled inclusive, community-driven approaches to strengthen climate resilience while improving WASH equity and systems.

What was done

Local capacity	Trained 648 WASH Committee members in hazard assessments and planning; nearly 5,000 women and girls trained in hygiene leadership.
Inclusive planning	Developed 54 climate-resilient WASH plans, 46 under implementation across communities, schools, and health centers.
Behavior change	Rolled out Community-Led Total Sanitation (CLTS) in 22 communities; 15 achieved Open Defecation Free status.
Systems strengthening	District WASH Committees created WASH plans and baseline studies, unlocking public and donor funding.

Key takeaways

★ WAVE 2 shows how community-driven approaches, when paired with inclusive planning, disaster risk tools, and governance strengthening, can deliver sustainable, locally led CR-WASH outcomes. Empowering women, formalizing partnerships, and grounding advocacy in local evidence were key to achieving both scale and resilience.

Source
Water for Women – World Vision PNG
Read more

Other sources
A Participatory Assessment for Climate-Induced WASH Vulnerabilities in Bangladesh
Read more

Programme Design and Planning

Action 5. Align projects with the government's Climate and WASH Strategies

Case Study Strengthening Climate-Resilient WASH Governance in Rural Nepal

Led by
When and Where
SNV Netherlands Development Organisation in partnership with Water for Women Fund
2023–2024 | Rural municipalities in Dailekh and Sarlahi, Nepal

Why it matters
Aligning WASH projects with national climate and development strategies is essential for long-term impact and scalability. This case study demonstrates how empowering local governments to lead climate-resilient WASH planning, within the framework of Nepal's national policies, can strengthen service delivery, promote equity, and build systems that are responsive to both current needs and future climate risks.

What was done

Climaterisk-informed governance	Municipal councils adopted WASH plans and annual budgets integrating climate-resilient water supply, DRR, and long-term resource conservation.
Technical capacity building	SNV provided mentoring and training to rural municipalities, water operators, and civil society on climate-resilient design and regulation.
Infrastructure upgrades	Water schemes were assessed and upgraded based on climate vulnerability (e.g., landslide and source protection).

Key takeaways

★ By supporting rural municipalities to integrate climate adaptation into their own planning and budgeting processes, the project secured policy alignment and local ownership. Formal engagement with government structures enabled coordinated technical support and evidence-based planning, which led to improved water access, institutional capacity, and infrastructure resilience.

Source
Water for Women- Nepal
Read more

Other sources
Water for People, 2025
Read more

Programme Design and Planning

Action 6. Integrate WASH with health, nutrition, livelihoods, DRR, and environmental programs

Case Study: Strengthening Water Resources Management for Climate-Resilient and Inclusive WASH Services in Cambodia

Led by University of Technology Sydney - Institute for Sustainable Futures (UTS-ISF), Cambodia Development Resource Institute (CDRI), Thrive Networks/East Meets West Cambodia, WaterAid Cambodia and Cambodia Water Supply Association (CWA)

Funded by Water for Women

When and Where 2023–2024 | Kampong Chhnang and Pursat Provinces, Cambodia

Why it matters Cambodia faces rising water stress from floods and droughts, threatening WASH infrastructure and exposing challenges in equitable water management. This research aimed to align WRM and WASH planning through inclusive, climate-resilient approaches engaging government, civil society, and private operators.

What was done

Tool review and alignment	Reviewed two government Water Safety Planning (WSP) tools—one for community systems and one for private operators—highlighting gaps in climate, inclusion, and scale, with recommendations for harmonization.
Integrated local implementation	East Meets West helped 13 communes apply climate-resilient WSPs linking services to local water resources, while workshops in six provinces aligned operators, government, and communities on source protection, demand management, and planning.
Capacity building for WRM-WASH integration	Used participatory research (surveys, interviews, focus groups) to assess how WSPs can strengthen governance and service sustainability, embedding Gender, Equality, Disability and Social Inclusion principles to ensure women and marginalized groups shaped decisions.
Strategic engagement	Facilitated joint reflection among ministries, private operators, and CSOs to identify system-wide entry points for integrating climate-informed WRM into WASH programming.

Key takeaways

★ By aligning WRM and WASH through inclusive WSP processes, this project demonstrated how civil society, government, and private actors can co-produce actionable, locally grounded resilience strategies.

Source

Strengthening Water Resources Management for Climate-Resilient and Inclusive WASH Services — Read more

Other sources

Water for Woman's Integrating Risk and Resilience for Climate-Resilient WASH Programming — Read more

Groundwater must be fully integrated into WASH programmes to make them climate resilient — Read more

Elevating WASH in Global Climate and Development Agendas

Action 1. Advocate for WASH in global and regional climate and development dialogues

Case Study Positioning Climate-Resilient WASH in the Global Goal on Adaptation (GGA)

Led by Sanitation and Water for All (SWA) partnership

When and Where Ongoing | Global

Why it matters Water and sanitation systems are among the most vulnerable to climate change impacts like floods and droughts. By placing WASH as part of the GGA framework, global stakeholders are recognizing its essential role in climate resilience. Aligning GGA targets with a common definition of climate-resilient WASH will not only improve country-level planning and coordination but also enhance access to climate finance and policy influence through Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs).

What was done

Policy Influence and Advocacy	SWA and partners advocated for the inclusion of WASH in the Global Goal on Adaptation (GGA) Framework through participation in various climate and WASH dialogues and events.
Indicator Development	SWA's Climate Task Force are contributing to the development of GGA indicators (focused on water scarcity, disaster resilience, and access) and a common definition.
Cross-sector Dialogue	Collaboration among climate and WASH stakeholders emphasized the need for alignment and mutual understanding in defining priorities.

Key takeaways

★ The GGA helps elevate climate resilient WASH as a global priority, with new indicators supporting its inclusion in national plans and climate finance. A shared definition strengthens cross-sector alignment and positions the sector for greater impact.

Source
SWA, 2025

Read more

Supporting Climate-Responsiveness in National Policy and Planning Processes

Action 1. Support the integration of resilience into national WASH policies and legal frameworks

Case Study NEWSAN Champions Climate-Smart Water & Sanitation in Nigeria

Led by Society for Water and Sanitation (NEWSAN), UNICEF and SWA
When and Where 2024 | Abuja, Nigeria

Why it matters In Nigeria, climate shocks worsen already fragile sanitation and hygiene conditions, especially in underserved communities. By putting WASH on the political agenda through targeted advocacy and stakeholder engagement, this initiative helps ensure that climate action includes concrete commitments to improve public health and service delivery. It reflects a growing shift toward integrating citizen demands and climate priorities into national water and sanitation planning.

What was done

Political advocacy	NEWSAN mobilized over 130 political candidates through its "WASH Charter of Demands" in the 2023 elections to commit to climate-smart WASH.
Multi-stakeholder consultation	Organized a one-day workshop in Abuja bringing together government, CSOs, and international partners to push climate resilience in WASH policies.

Key takeaways

- NEWSAN's campaign successfully brought climate resilient WASH into national political discourse. The initiative fostered alignment between WASH and climate agendas, promoting integrated planning and accountability. It also highlighted the role of civil society in shaping policy commitments and building momentum for climate-smart investments in water and sanitation.

Source
SWA, 2024

Read more

Supporting Climate-Responsiveness in National Policy and Planning Processes

Action 3. Integrate Climate Risk assessments and flexible planning into WASH strategies

Case Study Evidence-Based Coordination for Climate-Health Action in Uganda

Led by Uganda Ministry of Health, Makerere University School of Public Health and WHO

When and Where 2023-2024 | Uganda

Why it matters Uganda's health system faces growing climate threats that exacerbate infectious diseases, malnutrition, WASH deficits and health infrastructure risks. Evidence-based adaptation planning is key to protect vulnerable populations and enhance system resilience by integrating climate health priorities into health service delivery.

What was done

National Vulnerability and Adaptation Assessment (VAA)	Assessed climate-health risks across 716 health facilities, identifying gaps in WASH, energy, emergency preparedness, workforce and healthcare waste management.
Development of Health National Adaptation Plan (H-NAP)	Informed by VAA, Uganda designed its HNAP (2025-2030) to target climate-smart governance, early warning, workforce training, climate-informed programming, and resilient infrastructure.
District-Level Dissemination	Held orientation sessions in 26 hotspot districts (ve.g. prone to floods, landslides and droughts) to engage district health teams in climate-health planning with tools and copies of HNAP.

Key takeaways

★ Uganda's integrated approach demonstrates how robust climate-health data enables actionable planning through H-NAPs, elevating climate resilience within the health sector. The process underscores the need to embed WASH, workforce capacity, infrastructure, and governance dimensions into national adaptation strategies.

Source
ATACH Case Studies — Read more

Other Case studies on Elevating WASH in Global Climate and Development Agendas

SWA's 2023 Partners' Climate Compendium — Read more

Integrating sanitation and climate change in national level policy frameworks — Read more

Mobilizing Funding and Financing for Climate Resilience

Action 1. Advocate for increased climate-aligned WASH financing

Case Study Incentivizing scale up and investment in climate-resilient sanitation

Led by Container-Based Sanitation Alliance (CBSA)

When and Where Ongoing | Global

Why it matters Sanitation contributes significantly to greenhouse gas emissions, yet climate finance rarely targets this sector. Container-Based Sanitation (CBS) offers a low-emissions, waterless alternative suitable for urban slums, flood-prone zones, and humanitarian settings, addressing both climate adaptation and mitigation.

What was done

Emissions tool development	CBSA created a tool to quantify the mitigation potential of CBS systems. Early results showed four operators avoided 45,000 tons of CO_2e annually.
Carbon finance exploration	CBSA is developing a carbon credit methodology covering emissions avoided from waste containment, treatment, and reuse.
Revenue mobilization strategy	By linking CBS providers to future carbon markets, CBSA aims to unlock new financing streams and incentivize scaling.

Key takeaways

★ Quantifying emissions reductions helps position CBS as a financeable climate solution. Innovative tools and carbon methodologies are critical to connect sanitation providers with climate finance and drive investment in climate-resilient, low-emissions WASH systems.

Source
Adapted from SWA's 2023 Partners' Climate Compendium
Read more

Other case studies on Mobilizing Funding and Financing for Climate Resilience
Climate finance and water security: Bangladesh case study
Read more

Glossary

Understanding the climate challenge 01

Climate Change

According to the UNDP's Climate Dictionary, "Climate change refers to the long-term changes in the Earth's climate that are warming the atmosphere, ocean and land. Climate change is affecting the balance of ecosystems that support life and biodiversity and impacting health. It also causes more extreme weather events, such as more intense and/or frequent hurricanes, floods, heat waves, and droughts, and leads to sea level rise and coastal erosion as a result of ocean warming, melting of glaciers, and loss of ice sheets."

Anthropogenic Climate Change

The warming of the planet caused by human activity that produces large amounts of additional greenhouse gases.

Greenhouse Gases

Gases such as methane (CH_4), water vapour (H_2O), carbon dioxide (CO_2), and nitrous oxide (N_2O) that act like a blanket around the Earth, trapping heat from the sun.

Climate trends

Climate trends encompass long-term patterns and changes in Earth's climate over extended periods, typically spanning decades to centuries. These trends are driven by various factors, including natural processes such as volcanic activity and solar radiation, as well as human-induced influences like greenhouse gas emissions. Examples of climate trends include rising global temperatures, changing precipitation patterns, sea level rise, and shifts in the frequency and intensity of extreme weather events.

Climate risk

Risk is the potential for consequences where something of value is at stake and where the outcome is uncertain, recognizing the diversity of values. According to the IPCC (2022), in the context of climate change impacts, risks result from dynamic interactions between **climate-related hazards** with the **exposure** and **vulnerability** of the affected human or ecological system.

- **Hazard:** A dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage. **Climate hazards** can include extreme weather events such as hurricanes, droughts, floods, heatwaves, and wildfires. These hazards can be rapid onset events and shocks (e.g. hurricanes) or slow onset events and stresses (e.g. dry spells, droughts).

- **Exposure:** The presence of people, property, infrastructure, or other assets in areas that are susceptible to hazards, making them potentially subject to harm or loss.

- **Vulnerability:** The characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard.

Resilience

In the 2022 Intergovernmental Panel on Climate Change (IPCC) report, Resilience is defined as: "the capacity of social, economic and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganising in ways that maintain their essential function, identity and structure while also maintaining the capacity for adaptation, learning and transformation. Resilience is an entry point commonly used, although under a wide spectrum of meanings. Resilience as a system trait overlaps with concepts of vulnerability, adaptive capacity and, thus, risk, and resilience as a strategy overlaps with risk management, adaptation and transformation. Implemented adaptation is often organized around resilience as bouncing back and returning to a previous state after a disturbance."

Responding to climate change 02

Climate Action

Climate Action refers to a series of strategies, policies, and initiatives aimed at addressing climate change and its impacts. Climate Action initiatives cover topics such as reducing greenhouse gas emissions, transitioning to low-carbon and renewable energy sources, enhancing climate resilience, and promoting sustainable practices to combat climate change. The United Nation's Sustainable Development Goal 13 represents Climate Action. Relevant targets from SDG 13 that can be applied in the context of climate resilient WASH systems: Strengthen resilience and adaptive capacity to climate-related hazards, integrate climate change measures into national policies, strategies and planning, Improve education, awareness-raising on climate change mitigation and adaptation Climate action is essential for mitigating the worst impacts of climate change, protecting vulnerable communities and ecosystems, and ensuring a sustainable and equitable future for current and future generations.

Climate Mitigation

Climate mitigation refers to the actions to address the underlying causes of climate change by reducing greenhouse gas emissions and absorbing carbon. Examples of climate change mitigation in the WASH sector include:

- Reducing energy from fossil fuel for pumping by improving efficiency or converting to renewable energy sources such as solar.
- Adding carbon capture technology to wastewater and faecal sludge treatment plants.
- Decreasing storage times for faecal sludge to reduce methane emissions.
- Planting trees and restoring riverbanks; such projects will help prevent erosion and sequester carbon from the atmosphere.

Climate Adaptation

Climate adaptation refers to the actions that address the impacts of climate change by managing climate-related risks, and are often at a local level. The three key climate adaptation aims in WASH are stronger infrastructure, dynamic and inclusive service management, and healthier freshwater ecosystems. Adaptation to climate change can help reduce exposure and vulnerability to extreme weather events and thus reduce risk, but it can also increase resilience against whatever risks that cannot be avoided. Examples of climate change adaptation in the WASH sector include:

- Modifying design standards to manage risks from climate hazards, such as elevating well platforms in flood-prone areas or strengthening pipeline anchors in landslide prone areas.
- Focusing on design modifications to secure accessibility for those with disproportionate impacts such as women and persons with disabilities.
- Designing features that enable sanitation technologies and hygiene facilities to be rebuilt or restored if damaged or disrupted.
- Adding redundancy in water sources (have alternative water source on stand-by) to fill gaps during longer dry seasons and droughts.
- Reducing water demand by practicing conservation and using low-flow technologies.
- Improving pit designs to prevent the spread of contamination in flood-prone areas.
- More frequent and seasonal monitoring of water resources.
- Redundancy (spare parts and stock) in materials and services of local providers with focus on accessibility for marginalized populations with disproportionate impacts.
- Linking to area early warning systems that are also accessible for persons with different disability types, including sensory disabilities.
- Developing contingency plans in high-risk areas.
- Improving management of sanitation services by, for example, adjusting desludging schedules to prevent wash out.
- Fostering a smooth transition to more sustainable land use practices in catchment areas.

Carbon Sink

According to FAO (2019), a carbon sink is a process or activity that removes greenhouse gases from the atmosphere or prevents the release of carbon stored in natural reserves. It is estimated that 50% of the carbon stored in soil has been released into the atmosphere over the last century due to the long-term conversion of grasslands and forests into cropland. Additionally, about one-third of global greenhouse gas emissions come from agriculture.

Carbon Capture and Storage

A method of reducing carbon dioxide (CO_2) emissions, potentially critical to address global warming. It involves a three-step process: capturing CO_2 from power generation or industrial activities (such as hydrogen production, steel, or cement making), transporting the captured CO_2, and permanently storing it deep underground. According to the Carbon Literacy® project, it is "an awareness of the carbon costs and impacts of everyday activities, and the ability and motivation to reduce emissions, on an individual, community and organisational basis."

Climate-resilient WASH Definition

03

The WASH sector does not currently have a unified or common definition of climate-resilient WASH. Many definitions are currently used with common elements that focus on the services and behaviours that can anticipate and respond to various climate shocks and stresses.

WaterAid defines climate-resilient WASH as 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.

Sanitation and Water for All (SWA) defines climate resilient WASH as services that anticipate, respond to, cope with, recover from, adapt to or transform based on climate-related events, trends and disturbances, all while striving to achieve and maintain universal and equitable access to safely managed services, even in the face of an unstable and uncertain climate, where possible and appropriate, minimising emissions, and paying special attention to the most exposed vulnerable groups.

SWA's definition is also supported by the following criteria:

- Robust infrastructure designed and built to withstand and adapt to climate events and trends, ensuring service continuity.
- Sustainable use and protection of catchment, surface and groundwater resources and related ecosystems, including minimisation of greenhouse gas emissions without compromising service function.
- Operated by professional service providers equipped to adapt manage and recover from climate-related shocks, guaranteeing reliability and adaptability.
- Users are informed, empowered and engaged – particularly the most vulnerable groups, fostering accountability among service providers and local authorities, contributing to community resilience.
- Strong and inclusive governance to ensure good, adaptive and responsive measures to climate risks, facilitating coordinated efforts for resilience building and service provision and ensuring access to hydrogeological and climate data for informed decisions by the sector.

Both definitions highlight the importance of taking a risk-based approach to identify adaptation that builds resilience across the entire WASH system.

Equity and social inclusion in climate action

04

Climate Justice

Climate justice refers to the need to address climate change not just as an environmental challenge but also as a social justice issue because climate change disproportionately affects marginalised groups and communities, who have historically contributed least to greenhouse gas emissions.

The existence and impact of socioeconomic and environmental disparities result in deeply engrained barriers that disproportionately harm marginalized individuals and communities. Justice requires that we understand these disparities and barriers and that we take measures to dismantle them in all programming decisions and in how services are delivered.

Intersectionality

Intersectionality is an approach for understanding and addressing social inequality's complexities. It examines how multiple identity factors (e.g., gender, disability, ethnicity, age, income) combine and interact to create experiences of discrimination or privilege. For example, a woman with a disability may face unique discrimination due to the combination of her gender and disability. This interaction creates distinct, and deeper forms of marginalization. Contextualization is crucial in an intersectional approach, as individuals in different communities have unique experiences of marginalization that must be analysed and considered in all programs and policies.

Locally Led Adaptation

Locally Led Adaptation refers to the set of principles that underscore the importance of engaging local communities in decision-making processes and integrating indigenous knowledge and practices into adaptation strategies. They also highlight the need to address structural inequalities faced by women, youth, children, persons with disabilities, indigenous peoples, and marginalized ethnic groups. By embracing these principles, the effectiveness and sustainability of climate-resilient WASH interventions can be enhanced in the context of a changing climate. Locally Led Adaptation principles include:

- Devolving decision-making to the lowest appropriate level.
- Addressing structural inequalities: faced by women, youth, children, marginalized. ethnic groups, persons with disabilities, displaced individuals, and indigenous peoples.
- Providing patient and predictable funding that can be accessed more easily.
- Investing in local capabilities to leave an institutional legacy.
- Building a robust understanding of climate risk and uncertainty.
- Flexible programming and learning.
- Ensuring transparency and accountability.
- Collaborative action and investment.

The “do no harm” principle

The “do no harm” principle aims to ensure that any action and intervention minimize negative impacts, avoiding harm to people, communities and the environment. It is a widely used approach in the WASH sector to help focus efforts on protecting against, avoiding and mitigating potentially harmful impacts of development interventions, designs or approaches. It is recognized that due to imbalances of power and opportunity in society, which are also reflected in WASH systems, failing to address inequality will inevitably reinforce and reproduce such imbalances. A proactive ‘do no harm’ approach is always required.

Twin-track approach

The Twin-track approach refers to the practice of both mainstreaming and targeting WASH programming.

- **Mainstreaming** involves integrating climate resilience, gender and social inclusion measures into the design, implementation, monitoring, and evaluation of all policies and programs, creating inclusive environments, systems, and services by actively involving marginalized groups in a cross-cutting manner. This aligns with the SDG focus on leaving no one behind and and prioritizing those furthest behind.
- **Targeting** addresses the specific needs of individuals (such as women and girls with disabilities) through empowerment and personalized social support.

Mainstreaming ensures programs are inclusive, while targeting adds clear activities specifically aimed at marginalized groups.

Addressing climate risks 05

Risk management

Risk management is the process of identifying, assessing, and prioritizing risks, followed by the application of resources to minimize, monitor, and control the probability and/or impact of adverse events or to maximize the realization of opportunities.

Climate risk assessments play a critical role in managing risks across all building blocks of climate resilient WASH systems by identifying such risks, vulnerabilities and hazards and informing targeted interventions. From service delivery infrastructure to planning and institutional arrangements, risk assessments align with a systems strengthening approach by promoting holistic, integrated, and adaptive strategies that build resilience, ensure sustainable resource use, and enhance the overall effectiveness of WASH service delivery. Climate risk assessment can help identify:

- Hazards that could have an impact on the WASH system. Examples include droughts, floods, storms, rising temperatures, etc.
- Who and what is exposed to these hazards.

- Vulnerabilities of those exposed and the projected damage of a hazard.
- To what extent the risks can be reduced or mitigated.

Not all risks to WASH services are climate-related however. Other hazards include geophysical events such as earthquakes and volcanic eruptions. Service delivery is also vulnerable to violent conflict, political instability, economic downturns, and chemical or biological hazards. Identifying and assessing these risks is crucial. Given limited resources, it is essential to prioritize and address those requiring immediate action, depending on existing capacities.

Multiple tools have been developed for assessing vulnerability, hazards, and overall risks for WASH systems and more. The table below provides a summary of five WASH systems risk assessment tools:

Tool	Assessment focus and scale	Brief description and key considerations for use
WASH Climate-Resilient Development Guidance Note (UNICEF and Global Water Partnership)	Risk at national and district levels.	A comprehensive tool assessing WASH-related risks across environmental, political, social, and economic domains. Includes modules for national and local use, with detailed hazard listings and confidence scoring. Relatively intensive to conduct. Can support a wider multi-sector analysis or be used for a standalone assessment.
How Tough is WASH? (Bristol University)	Vulnerability at community and systems levels.	A resilience assessment tool structured around six domains of WASH service delivery: environment, infrastructure, service management, institutional support, community governance, and supply chains. Suitable for tracking annual changes over time.
Climate, Environment and Disaster Risk Reduction Guidance – CEDRIG (Swiss Agency for Development and Cooperation)	Risk at community and systems levels.	A rapid screening tool to identify climate, disaster, and environmental risks and impacts. Helps determine the need for a more in-depth assessment. An initial assessment of risks and impacts that helps evaluate whether further detailed assessment is required.
Integrating Climate Resilience with WASH Systems Strengthening (WaterAid)	Vulnerability at national and district levels.	Aligns climate resilience with the WASH systems building blocks. Offers a snapshot of service vulnerabilities and guidance for where to direct system-strengthening efforts. Suitable for tracking annual changes over time.
Climate Risk Informed Decision Analysis – CRIDA (Alliance for Global Water Adaptation – AGWA)	Risk and vulnerability at community and systems levels.	A flexible, stepwise planning tool that supports decision-making in uncertain, water-scarce environments. Emphasizes participatory, site-specific approaches for developing countries. Supports site-specific planning, especially in vulnerable regions facing uncertainty. Offers a flexible and robust framework.

Risk assessments are not static. With changing climate and increasing understanding over time, it is recommended to build in regular review of risk profiles. Although risk assessment can take place at project, infrastructure or national level, it is recommended to apply at district level to link with district wide approach and master planning processes.

Emergency Prevention

Emergency prevention refers to the measures and strategies implemented to mitigate or avert the occurrence of crises or disasters before they happen. This involves identifying risks, implementing interventions, and building resilience to reduce the likelihood of emergencies or minimize their impact.

Emergency Preparedness

Emergency preparedness refers to the readiness and capacity of individuals, communities, organizations, and governments to effectively respond to and manage emergencies or disasters. This involves planning, training, resource allocation, and coordination efforts to ensure timely and efficient responses when crises occur.

Emergency Response

Emergency response refers to the immediate actions taken to address and manage the consequences of a crisis or disaster. It includes mobilizing resources, providing assistance, and implementing measures to save lives, protect property, and support affected populations during and immediately after an emergency.

Emergency Recovery

Emergency recovery is the phase following a crisis or disaster, where efforts are focused on restoring communities, infrastructure, and systems to pre-disaster conditions or better. This involves rebuilding physical, social, economic, and environmental assets, as well as supporting affected individuals and communities in their recovery process.

Global processes for climate action

06

UN Framework Convention on Climate Change (UNFCCC)

The UNFCCC is an international environmental treaty adopted at the Earth Summit in Rio de Janeiro in 1992. It is a legally binding treaty that aims to address global warming and its impacts on the environment and human societies. The ultimate objective of the Convention is to stabilize greenhouse gas concentrations "at a level that would prevent dangerous anthropogenic (human caused) interference with the climate system." It states that "such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened, and to enable economic development to proceed in a sustainable manner."

Conference of the Parties (COP)

The COP is a yearly gathering of representatives from countries that are parties to the United Nations Framework Convention on Climate Change (UNFCCC). During these conferences, countries come together to discuss and negotiate actions to address climate change. The most notable COP meeting was COP21, held in Paris in 2015, where the landmark Paris Agreement was adopted. This agreement aims to limit global warming to well below 2 degrees Celsius above pre-industrial levels, with efforts to limit it to 1.5 degrees Celsius. Subsequent COP meetings have focused on implementing the Paris Agreement and enhancing global climate action.

Paris Agreement

Adopted in 2015, the Paris Agreement, recognizes adaptation as a crucial component of global climate action alongside mitigation efforts. While the agreement primarily focuses on mitigation and limiting global temperature rise, it also emphasizes the importance of enhancing adaptive capacity, strengthening resilience, and reducing vulnerability to climate change impacts.

Global Adaptation Action Agenda

The Global Adaptation Action Agenda is an initiative that aims to galvanize collective action and support for adaptation efforts globally. It encourages collaboration among governments, businesses, civil society, and other stakeholders to advance adaptation priorities.

Nationally determined contributions (NDC)

NDC communicate a country's contribution to meeting the goals of the Paris Agreement. NDCs are pledges or commitments made by each country to outline their efforts toward mitigating greenhouse gas emissions and adapting to the impacts of climate change. The submission of NDC's is a global commitment and each country does this before the Conference of the Parties (COP).

National Adaptation Plan (NAP)

The NAP is a voluntary country-driven process where national governments analyse current and future climate risks and deliberate with stakeholders on how the risks can be addressed. The process provides a basis for countries to identify and prioritize medium-and long-term adaptation options and to implement them through respective strategies.

Global Goal on Adaptation (GGA)

The GGA is a framework acknowledging the crucial and urgent need to scale up climate adaptation efforts and a key element of the Paris Agreement. Its purpose is to enhance adaptive capacities, strengthen resilience and reduce vulnerabilities to climate change through global benchmarks and measurable indicators. Although the foundation of the framework and its broad goals were agreed upon by global leaders at COP28, it currently lacks details on the specifics on indicators and quantifiable targets. Those details are currently part of ongoing discussions within the international community and will be key issues for 2025.

1.5 Degrees Celsius Goal

According to the World Resources Institute (WRI), 1.5 degrees Celsius goal is the climate target established in the 2015 Paris Agreement, rooted in decades of interaction between climate science and politics. While the 1992 UN Framework Convention on Climate Change (UNFCCC) did not specify a temperature limit, later agreements and scientific assessments introduced the idea of limiting global warming to 2°C. Growing concerns, especially from the Alliance of Small Island States (AOSIS) and Least Developed Countries (LDCs), led to the Paris Agreement's commitment to limit warming to "well below 2°C" and to "pursue efforts" to limit it to 1.5°C. The Intergovernmental Panel on Climate Change (IPCC) later found significant differences in climate impacts between 1.5°C and 2°C of warming and outlined pathways to stay within the 1.5°C threshold.

Use of the 1.5°C Goal: Since 2015, the 1.5°C goal has served as both a symbolic rallying point and a technical benchmark. It is invoked by vulnerable nations, NGOs, and international leaders to emphasize the urgency of climate action, often framed as "1.5 to stay alive." Technically, the goal informs national climate commitments (NDCs), emissions-reduction targets, carbon budget estimates, and IPCC-aligned pathways.

Financing climate action

07

Climate Finance

Climate finance refers to the financial resources used to fund actions that aim to reduce greenhouse gas emissions (GHGs), reducing vulnerability and increasing the resilience of human and ecological systems to cope with negative climate change impacts. It can be split into three categories:

- **Adaptation finance** relates to finance for activities that address climate change's current and expected effects.
- **Mitigation finance** refers to finance for activities that reduce and avoid greenhouse gas emissions.
- **Cross-cutting finance** refers to finance for activities that address both adaptation and mitigation measures.

Climate Funds

A term that is usually refers to the UNFCCC funds and financial entities including the Global Environment Facility (GEF) the Green Climate Fund (GCF), Adaptation Fund (AF), The Special Climate Change Fund (SCCF) and Fund for responding to Loss and Damage (FRLD).

Green Climate Fund (GCF)

The GCF is the largest multilateral climate fund and serves as an operating entity of the Financial Mechanism under the UNFCCC. GCF is dedicated to financing emerging economies as they shift to low-emission and climate resilient development pathways.

National Designated Authority (NDA)

The NDA are government institutions that serve as the interface between each country and the Green Climate Fund (GCF). They provide broad strategic oversight of the GCF's activities in the country and communicate the country's priorities for financing low-emission and climate-resilient development.

Global Environment Facility (GEF)

The GEF is a multilateral environmental fund established in 1992 and serves as an operating entity of the Financial Mechanism under the UNFCCC. GEF is dedicated to confronting biodiversity loss, climate change, pollution, and supporting land and ocean health. The partnership includes 186 member governments as well as civil society, Indigenous Peoples, women, and youth, with a focus on integration and inclusivity.

Adaptation Fund (AF)

The AF is a multilateral climate fund, established in 2001 to finance concrete adaptation projects and programmes in developing country Parties to the Kyoto Protocol that are particularly vulnerable to the adverse effects of climate change.

The Special Climate Change Fund (SCCF)

The SCCF is one of the world's first multilateral climate adaptation finance instruments, managed by the GEF. SCCF was established under the Convention in 2001 to finance projects relating to: adaptation; technology transfer and capacity building; energy, transport, industry, agriculture, forestry and waste management; and economic diversification.

Least Developed Countries (LDC) Fund
The LDC Fund is established in 2001 alongside the SCCF to support a work programme to assist LDCs carry out, inter alia, the preparation and implementation of national adaptation programmes of action (NAPAs).

Additionality

Additionality refers to the extra costs necessary to make a service climate-resilient or low-carbon. The concept highlights that climate finance should be provided on top of existing development aid or typical funding scenarios. This ensures that as climate finance increases, it does not reduce the funding available for other development needs.

Climate Rationale

Climate rationale is an agreed narrative which connects the existing and projected climate change risks to the impacts on infrastructure, services or communities and outlines low-carbon programming solutions to adapt to these risks. It relies on four key elements:

- A scientific underpinning for evidence-based climate decision-making (also known as 'climate science basis' in GCF guidance).
- Observed and projected impacts of climate change on the delivery and/or sustainability of WASH services, based on the best available climate data and science and solid analysis.
- Appraisal and prioritization of a set of technical and non-technical climate adaptation and mitigation solutions.
- Identification of the linkages between WASH and climate priorities in policies and other decision-making processes.

Country Ownership

The principle where emerging economies lead the process of identifying, developing, and implementing GCF-funded projects, ensuring they align with national climate priorities and strategies.

Loss and Damage (L&D)

When mitigation or adaptation measures fall short, L&D refers to harm and destruction (economic and otherwise) caused by climate change. Such qualifying cases have their own fund. Economic losses include losses of income (business operations, agricultural production, tourism, etc.) and physical assets (infrastructure, property). Non-economic losses include losses affecting individuals (life, health, human mobility), society (territory, cultural heritage, indigenous knowledge, societal/cultural identity), or the environment (biodiversity, ecosystem services). Impacts of climate change include slow onset events and extreme weather events which may both result in L&D.

Carbon Credits

Carbon credits are tradable permits that help countries or companies compensate for their greenhouse gas (GHG) emissions. They are a market-oriented mechanism that require the quantifying of emissions and mobilizing investments for emission-mitigating interventions.

They aim to reduce emissions and generate additional revenues for certified mitigation initiatives. Emission reductions are calculated by comparing the emissions caused by a specific initiative (project emissions) against emissions caused in a plausible baseline scenario (baseline emissions) without the initiative.

Thematic Bonds

Thematic bonds are financial instruments issued by governments, municipalities, or companies to fund projects with positive environmental and social impacts—such as climate action, health, education, and other SDG and NDC targets. These include green, social, sustainability (GSS), and sustainability-linked bonds (SLB).

Green Bond

A green bond is a fixed-income instrument specifically earmarked to raise money for climate and environmental projects. Green bonds are issued to raise the finance for an environmental project and are typically asset-linked and should be aligned with the International Capita; Market Association Green Bond principles.

The Green Bond Principles (GBP) seek to support issuers in financing environmentally sound and sustainable projects that foster a net-zero emissions economy and protect the environment.

Climate Bonds

Climate bonds are an extension of the green bond concept. They are issued to raise finance for investments in emission reduction or climate change adaptation. Examples include building Nile Delta flood defences and helping the Great Barrier Reef adapt to warming waters. Governments, multi-national banks or corporations can issue climate bonds. The issuing entity guarantees to repay the bond over a certain period, plus either a fixed or variable rate of return.

Climate Risk Insurance

Climate risk insurance refers to a set of financial tools designed to transfer risk and offer protection against the growing threats posed by extreme weather events, which are becoming more frequent and severe due to climate change.

Gold Standard

Gold Standard was established in 2003 by World Wildlife Fund (WWF) and other international NGOs as a best practice standard to ensure projects that reduced carbon emissions featured the highest levels of environmental integrity and contributed to sustainable development. All Gold Standard-certified projects and programmes accelerate progress toward the Net-Zero ambition of the Paris Climate Agreement while catalysing impact toward the broader Sustainable Development Goals. It allows climate and development initiatives to quantify, certify and maximise their impacts toward climate security and sustainable development. Certification against the standard provides the confidence that these results are measured and verified, enabling credible impact reporting.

The **Gold Standard Impact Registry** tracks the certification status of climate projects engaged in the Gold Standard certification process, offering a public view of their progress and access to essential project documentation, empowering stakeholders with the knowledge needed to make informed decisions. The registry is where products for Gold Standard projects, such as carbon credits, are issued, held, transferred, and retired, providing transparency and credibility. It also showcases the certified Sustainable Development Goal (SDG) impacts of those projects. The registry is used by a range of stakeholders including project developers, academics, credit purchasers, brokers and exchanges, marketplaces, and the wider public.

Carbon Price

Cost applied to carbon pollution to encourage polluters to reduce the amount of greenhouse gases they emit into the atmosphere. While carbon prices are not uniform globally, the Grantham Research Institute recommends a uniform price of around £30 per tonne of CO_2 equivalent (estimation for 2025), applied through taxes or emissions trading systems, to encourage businesses and consumers to shift away from high-carbon activities.

Debt-for-Climate Swaps (DFCS)

DFCS are an agreement between a sovereign country and its creditors that reallocates a portion of ongoing debt obligations toward investments in climate action. Such transactions provide opportunities for countries to enhance both fiscal stability and climate resilience, mobilising critical investment in areas such as renewable energy, urban infrastructure, sustainable agriculture and water security, forest conservation and restoration.

Debt-nature swaps (DNS)

DNS involve the purchase of developing country debt at a discounted value in the secondary debt market, and cancelling the debt in return for environment-related action on part of the debtor nation.

Strengthening the Climate-Resilient
of water and sanitation systems:

A Practical Guide

for NGOs to drive Impact, Collaboration, and Scalability

2025