

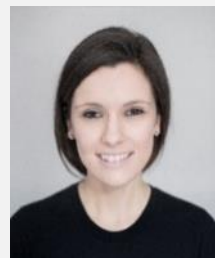


WASH Climate Resilience: Launch of Technical Guidance

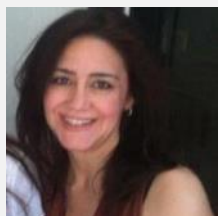
Presenters



Jose Gestí Canuto, Water and Environment Specialist,
UNICEF New York
jgesticanuto@unicef.org



Emily Bamford, Water and Climate Change Specialist, UNICEF New York
ebamford@unicef.org



Cristina Colon, Policy Specialist,
UNICEF New York
ccolon@unicef.org



Rakshya Rajyashwori Thapa, Policy Specialist,
UNICEF New York
rrthapa@unicef.org



Sara Oppenheimer, Project Assistant,
Global Water Partnership, Stockholm
sara.oppenheimer@gwp.org



Armand Houanyé, Capacity Building Programme Manager, Global Water Partnership, West Africa
A.Houanye@cgiar.org

Presentation Overview

1. Introduction
2. The Strategic Framework on WASH Climate Resilience
3. Available guidance and technical support
4. Examples of Climate Resilient WASH Programming
5. WASH Climate Resilience Funding Opportunities

UNICEF and GWP Collaboration (global)

- UNICEF and GWP have been collaborating on WASH and climate resilience since 2014.
- Global Water Partnership (GWP) is one of the leading organisations for WASH climate resilience, Integrated Water Resources Management and transboundary cooperation.
- GWP has played a key role in supporting the Global Dialogue on Water Security and Sustainable Growth and also support countries in their commitment to the post-2015 Development Agenda.
- UNICEF WASH works in more than 100 countries globally in order to ensure safe water, sanitation and hygiene for millions of people.
- Climate resilience forms a major pillar of the UNICEF WASH Strategy 2016-2030 and GWP Strategy Towards 2020.

UNICEF and GWP Collaboration (regions and countries)

Implementing the Strategic Framework for WASH Climate Resilient Development at national and regional scales

- Piloting the Risk Assessment Tool in 11 countries of West and Central Africa
- Cameroon: Improving WASH services in the Mayo Tsanaga catchment through pilot initiatives in schools and health centres
- Additional collaborations are being developed in Madagascar and Mauritania, including points such as:
 - Support to relevant Ministries in the development of WASH Sector Plans including climate risk assessments
 - Review of Water, Sanitation and Hygiene law
 - Development of project proposals to access climate funds

Climate Change and WASH



Climate impacts on the WASH sector

Climate effect	Hazard	Impact on WASH sector
Decrease in precipitation	Drought	Reduction in raw water supplies, reduced flow in rivers, less dilution/increased concentration of pollutants in water, challenge to hygiene practices.
Increase in precipitation and severe weather	Flooding	Pollution of wells, inundation of wells, inaccessibility of water sources, flooding of latrines, damage to infrastructure, landslides around water sources, sedimentation and turbidity, challenges to sustainability of sanitation and hygiene behaviours, and waterborne diseases.
Increase in temperatures	Heatwaves	Damage to infrastructure, increase in pathogens in water leading to increased risk of disease.
	Melting and thawing of glaciers, snow, sea ice and frozen ground	Seasonality of river flows affected leading to a reduction in water availability in summer.
Sea-level rise	Flooding and saline intrusion into freshwater aquifers	Reduction in availability of drinking water, with high impacts on quality.

© 2013 Pearson Education, Inc. or its affiliate(s). All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage or retrieval system, without prior written permission from Pearson Education, Inc. or its affiliate(s).



The Strategic Framework for WASH Climate Resilience



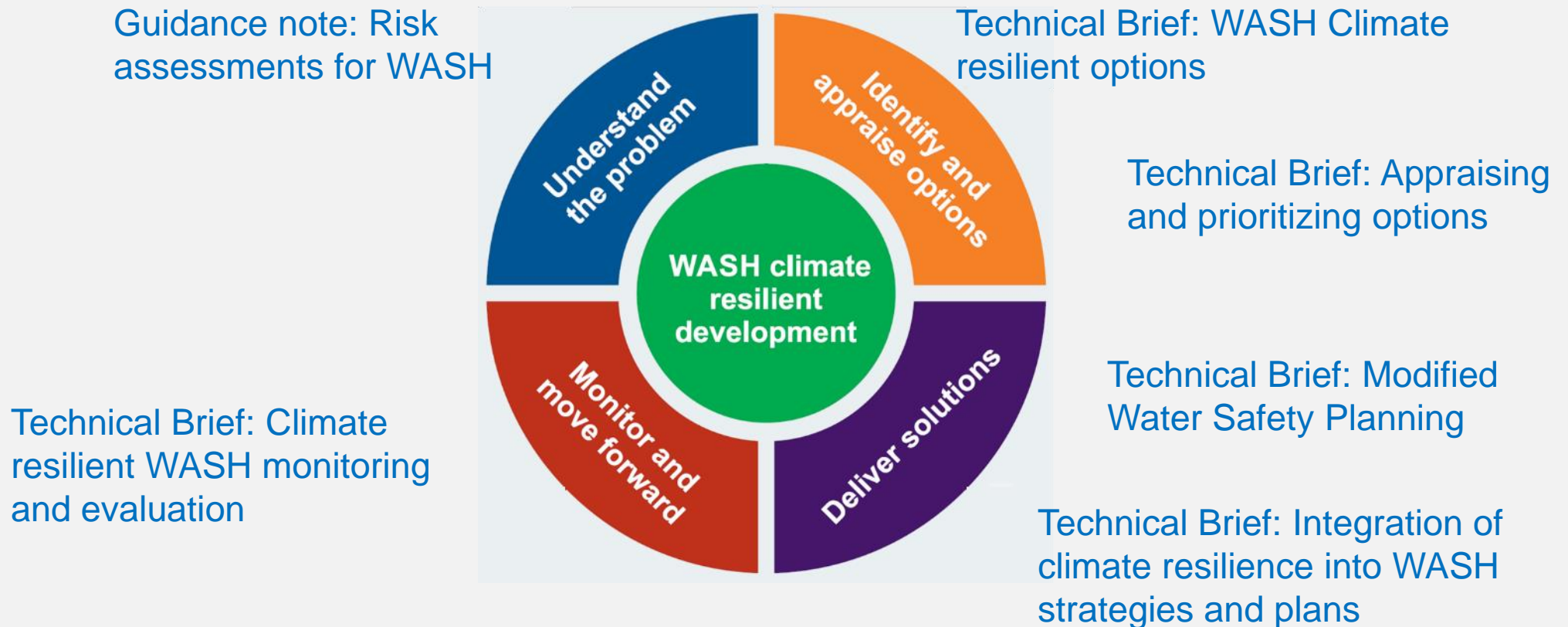
FRAMEWORK FOR WASH CLIMATE RESILIENCE



Focus on:

1. Rural WASH infrastructure and services are sustainable, safe and resilient to climate related risk
2. WASH contributes to build community resilience to climate change

AREAS OF WORK AND GUIDANCE DOCUMENTS



RESULTS FRAMEWORK

OUTCOME	Rural WASH infrastructure and services are sustainable, safe and resilient to climate related risks; and WASH contributes to build community resilience to climate change			
	NATIONAL	SUB-NATIONAL LEVEL/ WATERSHED LEVEL	LOCAL AND PROJECT LEVEL	
INTERMEDIATE OUTCOME	1. An ENABLING ENVIRONMENT conducive to climate resilient WASH services and communities	2. Water resources are MONITORED and MANAGED considering climate risks to WASH services and infrastructure	3. ACCESS to climate resilient WASH infrastructure and services	4. Climate resilient BEHAVIORAL CHANGE and GOVERNANCE at community and local level
OUTPUT	STRENGTHEN WASH SECTOR ENABLING ENVIRONMENT 1.1 Knowledge of climate risks generated and shared 1.2 Climate risk informed policies, strategies, plans and programmes developed 1.3 Adequate budget and resources allocated 1.4 Plans implemented and monitored 1.5 Inter-sectoral coordination strengthened with focus on health, food security and education sectors 1.6 Strengthened Early Warning Systems in place	BUILD WATER RESOURCE MONITORING AND MANAGEMENT CAPACITY 2.1 Water resource status and pressures understood 2.2 Long-term monitoring systems implemented and maintained 2.3 Guidelines/rules developed prioritising WASH services and accounting for hydrological change 2.4 Agreed rules implemented for resource development and adaptive management	SUPPORT CLIMATE SMART INFRASTRUCTURE AND TECHNOLOGIES 3.1 Project design and implementation of WASH standards strengthened 3.2 Water storage enhanced and protected 3.3 Water supplies diversified where possible 3.4 Climate smart technologies (low and no regret options) for WASH investigated and implemented	SUPPORT INSTITUTIONAL REFORM AND BEHAVIOUR CHANGE 4.1 Capacities and resources of local government and local private sector to implement and monitor WASH resilient programming strengthened 4.2 Awareness and capacity of communities to respond to shocks and stresses is enhanced 4.3 Local markets and supply chains extended and deepened to increase availability of climate resilient WASH products and services 4.4 Early warning and response systems strengthened
	1.1.1 Improving understanding of climate risks 1.1.2 Understanding resilience of technology types 1.1.3 Understanding WASH contribution to build community climate resilience 1.2.1 Reviewing and updating WASH policies and strategies to account for climate risks 1.2.2 Strengthening evidence based policy advocacy 1.3.1 Making budget allocations available to enhance resilience of existing WASH systems 1.3.2. Making budget allocations available to prioritize WASH interventions in identified risk areas 1.3.3 Ensuring adequate emergency budget allocations for WASH sector 1.4.1 Developing, implementing and monitoring plans 1.4.2 Mainstreaming bottleneck analysis and planning 1.5.1 Identifying and incorporating cross-sectoral considerations to manage climate risks 1.5.2 Increasing partnership and collaborative working 1.6.1 Ensuring Early Warning Systems predict and mitigate climate risks to WASH related outputs and outcomes	2.1.1 Assessing water resources – quantity and quality 2.1.2 Assessing risks to water resources from climate change and other pressures 2.2.1 Monitoring water availability and quality 2.2.2 Monitoring patterns of use and climate-linked (and other) threats 2.3.1 Developing agreed guidelines/ rules across water sector informed by climate risks 2.3.2 Supporting basin planning initiatives that coordinate water-using and polluting sectors and prioritise support for the most vulnerable areas 2.4.1 Developing new water sources in a resilient and sustainable manner 2.4.2 Allocating resources between sectors with WASH as a priority	3.1.1 Ensuring conformity with climate-informed standards 3.1.2 Supporting supervision and enforcement of standards 3.2.1 Developing decentralised storage systems 3.2.2 Strategically developing groundwater resources 3.3.1 Spreading risk between different water sources and systems 3.3.2 Targeting areas/communities affected by climate hazards and vulnerable sources by providing climate resilient WASH systems 3.4.1 Adapting technologies to account for climate risks 3.4.2 Exploring innovative, climate smart technologies (e.g. solar systems) 3.4.3 Exploring wastewater reuse/ recycling, nutrient recovery and energy production from waste 3.4.4 Improving sanitation and hygiene practices (e.g. ending open defecation) to reduce vulnerability	4.1.1 Strengthening capacity of WASH professionals and practitioners 4.1.2 Making sure sufficient resources are available for local WASH agencies in most vulnerable regions 4.2.1 Education and training of community groups for climate-responsive WASH management 4.2.2 Sharing knowledge on local WASH climate resilient options 4.3.1 Supporting local markets and supply chains for resilient WASH systems/technologies 4.4.1 Assessing status and functionality of early warning and response systems in relation to WASH needs 4.4.2 Contingency planning for WASH – esp. droughts and floods 4.4.3 Water Security and Water Safety Planning
ACTIVITY				

INTERMEDIATE OUTCOMES

NATIONAL

An **ENABLING ENVIRONMENT** conducive to climate resilient WASH services and communities

SUB-NATIONAL / WATERSHED LEVEL

Water resources are **MONITORED** and **MANAGED** considering climate risks to WASH services and infrastructure

LOCAL AND PROJECT LEVEL

ACCESS to climate resilient WASH infrastructure and services

Climate resilient **BEHAVIORAL CHANGE** and **GOVERNANCE** at community and local level

Available guidance and technical support



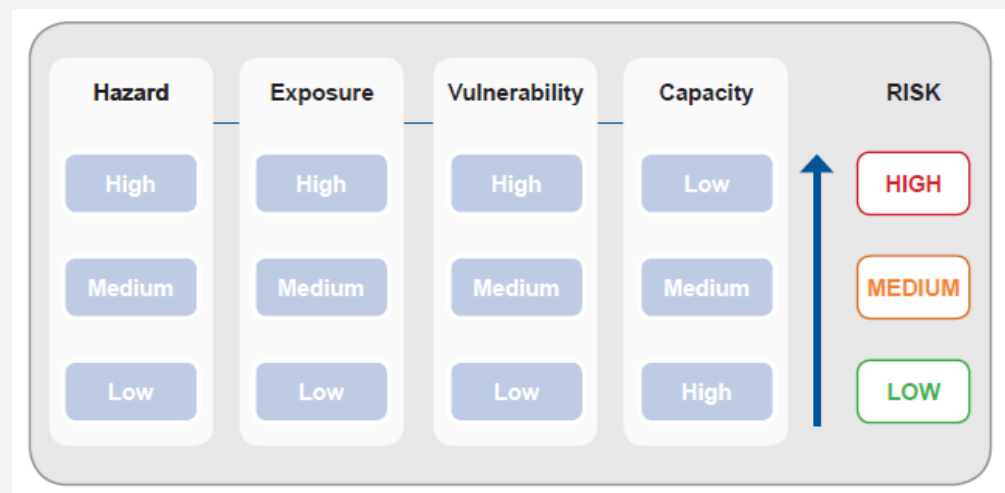


Guidance Note

Risk Assessments for WASH



This Guidance note:



Risk results from the interaction of hazard, vulnerability and exposure. Capacity also influences risk: a high capacity reduces risk while a low capacity does not.



Technical Brief

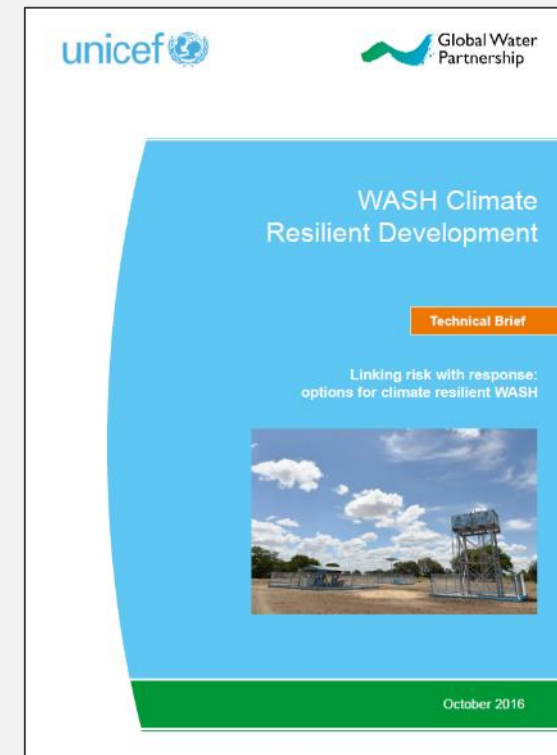
Linking risk with response: options for climate resilient WASH

This Technical Brief:

This brief focusses on the specific programming options and technologies for WASH climate resilience

Discusses how to screen technologies for climate risk, strengthen standards and build capacity within country

Goes into specific technology options for water storage, how to diversify and decentralise services, climate smart technologies etc





Technical Brief

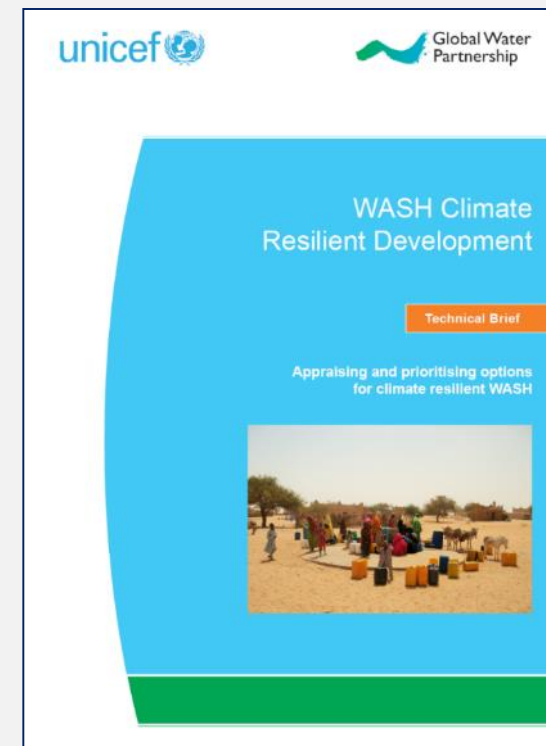
Appraising and prioritizing options for climate resilient WASH

This Technical Brief:

Focuses on how to appraise and prioritise options for climate resilience, informing WASH programme and project design.

Provides a simple scorecard/checklist approach to use as a starting point for appraising and prioritising options

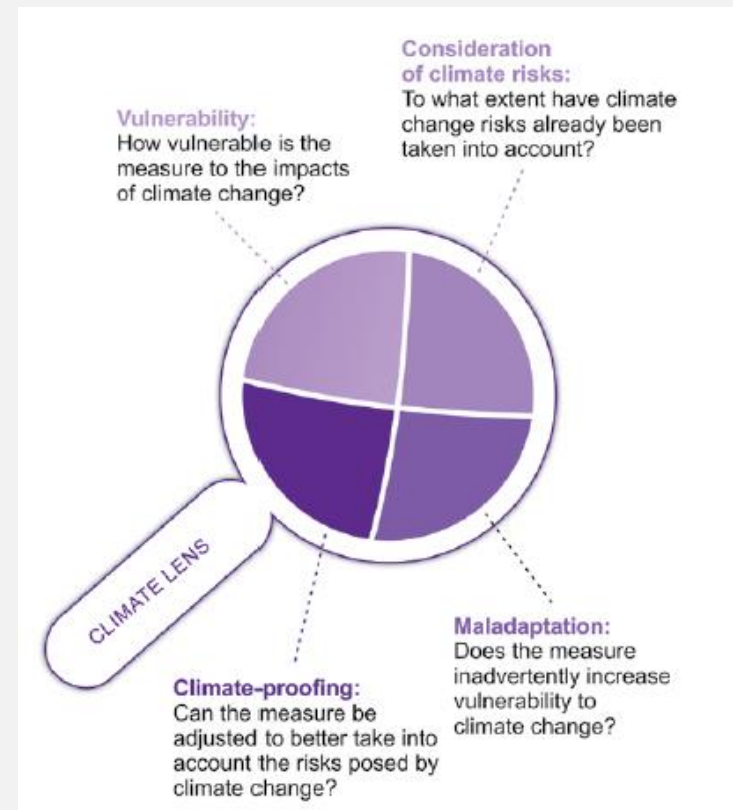
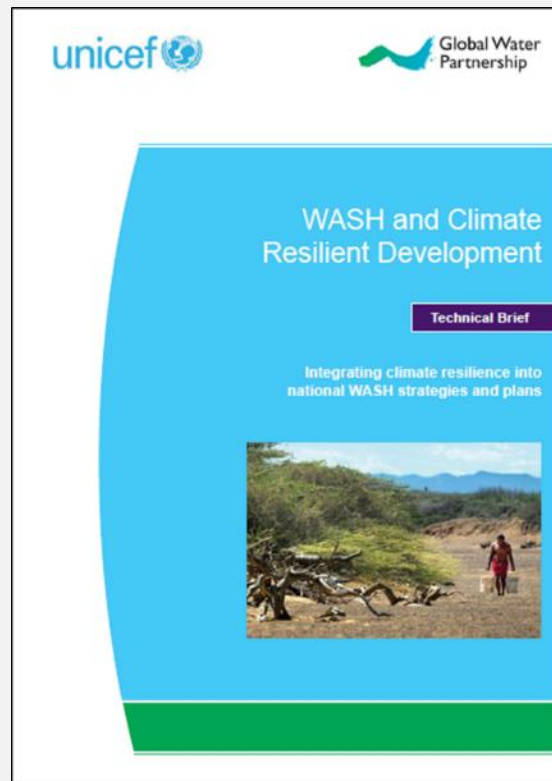
Focuses on current and near future options, over the next 15-20 years. This fits in with WASH programming timescales and development.





Technical Brief

Integration of WASH climate resilience into WASH strategies





Technical Brief

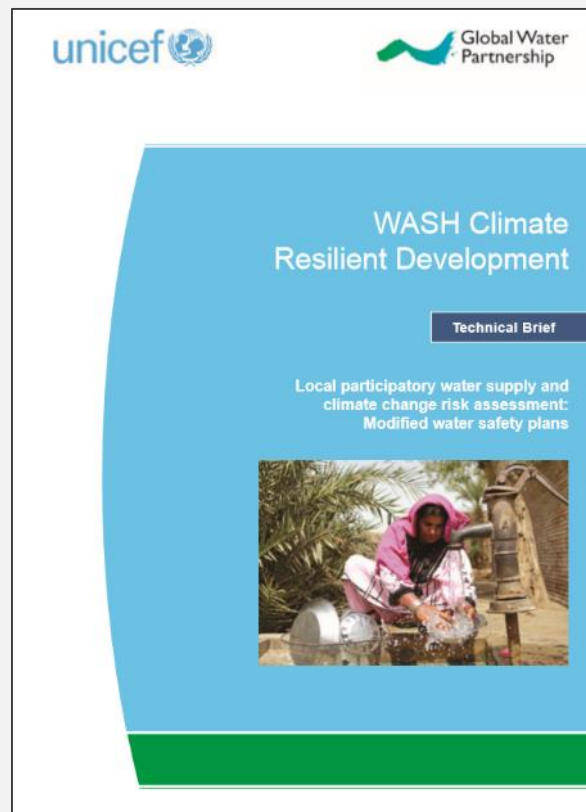
Modified Water Safety Plans

This Technical Brief:

Participatory water resources assessments (when hydrogeological information not available and/or hydrogeological siting techniques not employed)

Environmental and Climate hazard assessments at community level

Identification of climate resilient options within the scope of a community





Technical Brief

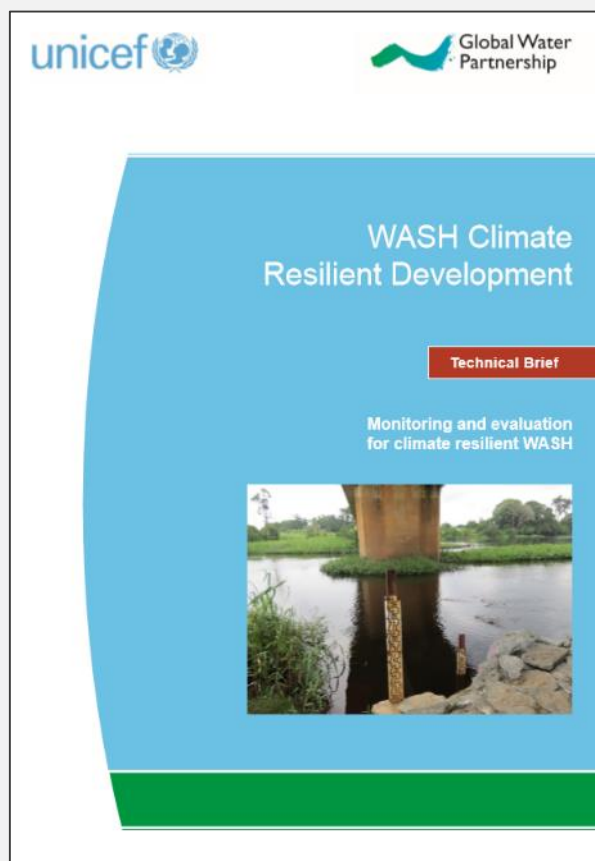
Monitoring and evaluation for climate resilient WASH

This Technical Brief:


Shows how indicators can be identified and used to monitor and evaluate the effectiveness of measures introduced to enhance climate resilience


Provides examples of typical monitoring indicators that can be used and/or adapted where necessary

Summarizes the factors to consider in monitoring climate resilience, and suggests ways to address these challenges.




WASH Climate Resilient Development Website

Global Water Partnership




Languages

THE FRAMEWORK




Strategic Framework for WASH Climate Resilience




THE FRAMEWORK

The Strategic Framework consists of 4 quadrants which provide guidance on how to ensure resilient WASH services.

Resilient WASH programming helps ensure that WASH infrastructure and services are sustainable and resilient to climate related risks; and WASH contributes to building community resilience to climate change.



Read more and download the Strategic Framework Strategy here:



English, Spanish, French

TECHNICAL BRIEFS

To support the implementation of the Strategic Framework, a number of Technical Briefs have also been developed. The briefs go into further detail on specific topics to support the implementation of the Framework.

1. Understand the problem - Guidance Note
 - Risk assessments for WASH + Instructions tool
2. Identify and appraise options - Technical Briefs
 - Linking risk with response: options for climate resilient WASH
 - Appraising and prioritising options for climate resilient WASH
3. Deliver solutions - Technical Briefs
 - Integrating climate resilience into national WASH strategies and plans
 - Local participatory water supply and climate change risk assessment: modified water safety plans
4. Monitor and move forward - Technical Brief
 - Monitoring and evaluation for climate resilient WASH


Additional references available here

LEARNING MODULES

The following Learning Modules have been developed in order to build the capacity of WASH practitioners to implement WASH climate resilience programming.

1. Understand the problem
 - Learning Module 1: Introduction
2. Identify and appraise options
 - Learning Module 2: WASH Climate Risk Assessments
3. Deliver solutions
 - Learning Module 3: Options to improve Climate Resilience
4. Monitor and move forward
 - Learning Module 4: Integrating Options into Strategies and Plans
 - Learning Module 5: Monitoring Programmes and Systems

Country Initiatives



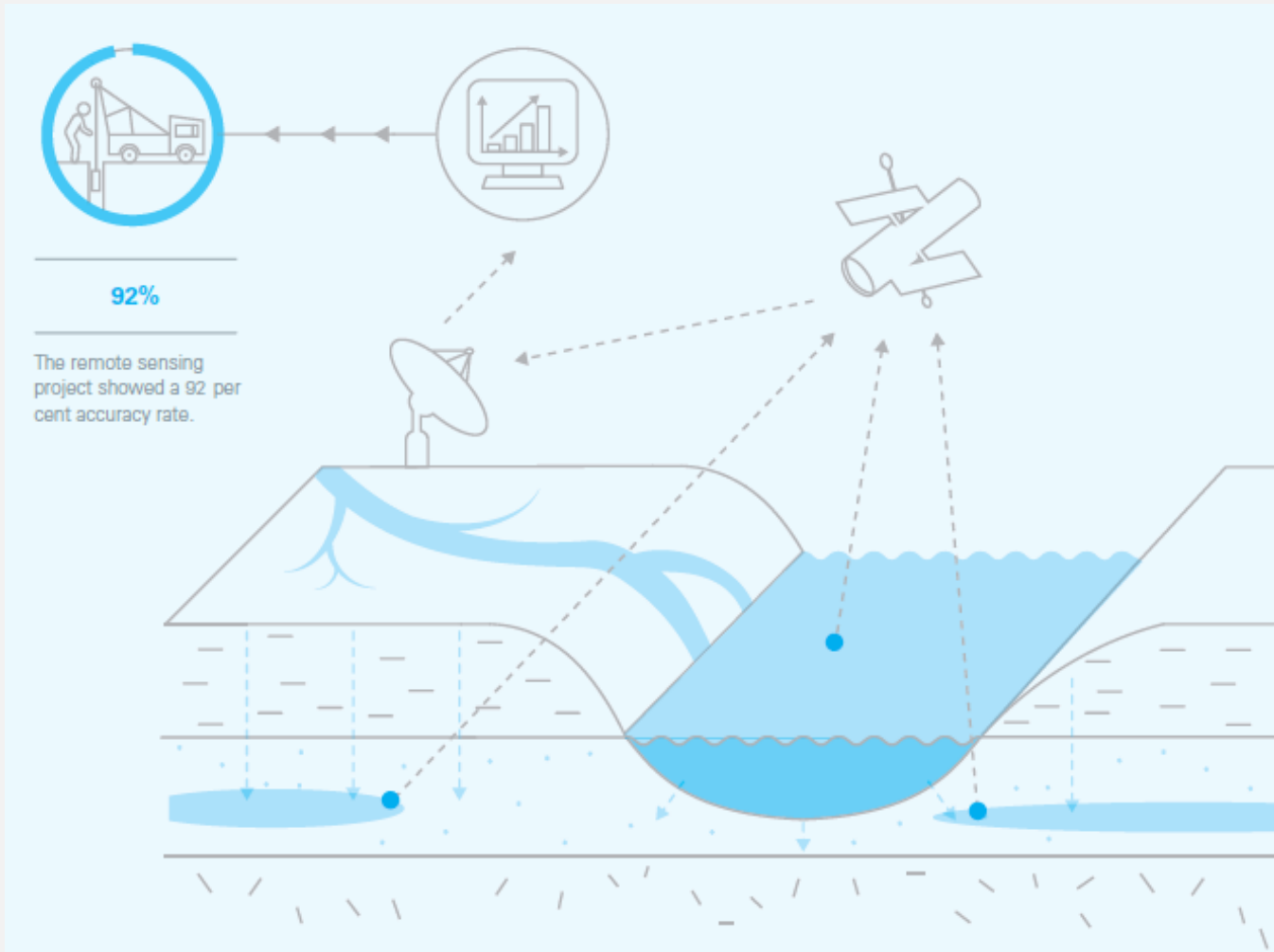
<http://www.gwp.org/en/WashClimateResilience/>

Examples of Climate Resilient WASH Programming



Examples of WASH Resilience Programming

GIS Water Mapping



- In 2016, Ethiopia experienced one of its worst droughts in decades.
- Piloting of remote sensing - combines satellite earth scanning with hydrological investigation techniques → groundwater suitability map.
- Improved drilling success rates from 50% to 92% accuracy in the most water scarce regions.
- More than 540,000 people have now gained access to safe water in drought-prone regions, including Multi Village Schemes.
- Approach is being scaled-up in 39 more districts.

Examples of WASH Resilience Programming

Diversification of Water Supply Sources

Cambodia: Beyond groundwater



- Shallow wells dry up during dry season
- Complement with use of treated surface water sources

Uganda: Rainwater harvesting



- Rain water captured when available and stored it (tanks or underground) for use throughout the year

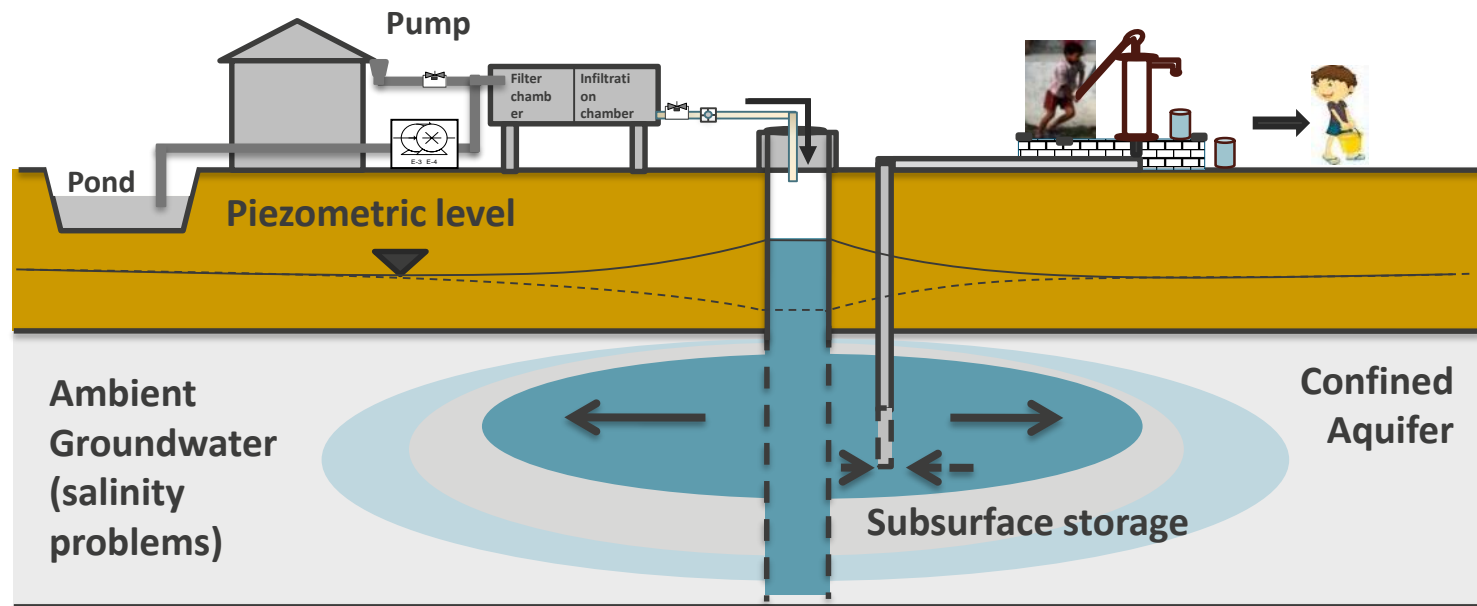
Mauritania: Solar powered water systems



- Durable, cost-effective, climate smart technology, also provides a water storage “buffer”

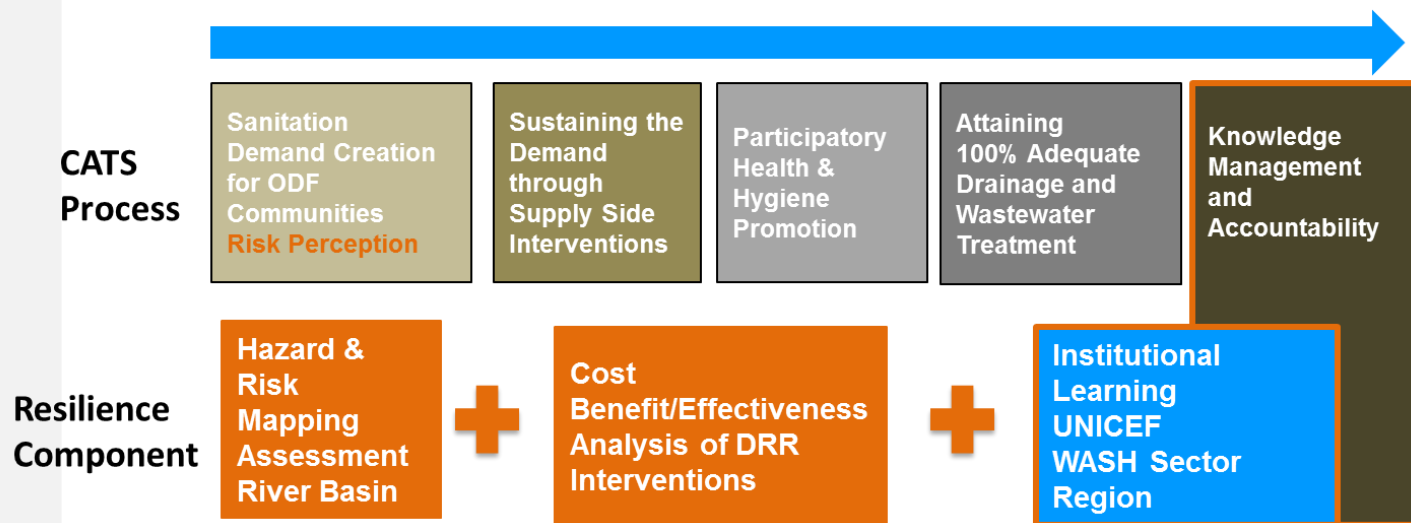
Examples of WASH Resilience Programming

Bangladesh: Managed Aquifer Recharge (MAR)



Examples of WASH Resilience Programming

Pakistan Approaches to Total Sanitation (PATs)



Examples of WASH Resilience Programming

Madagascar: Increasing community resilience through Multi Use Services (MUS)



- MUS: Meets both people's domestic and productive livelihood needs, whilst at the same time, ensuring the most efficient use of water resources.
- Construction/rehabilitation of 72 boreholes (including solar powered water systems).
- Protects livelihoods and agricultural production in communities → improved health and nutrition of children
- Increased financial sustainability of systems: water use is directly related to livelihoods → increased desire to pay for water and maintain system

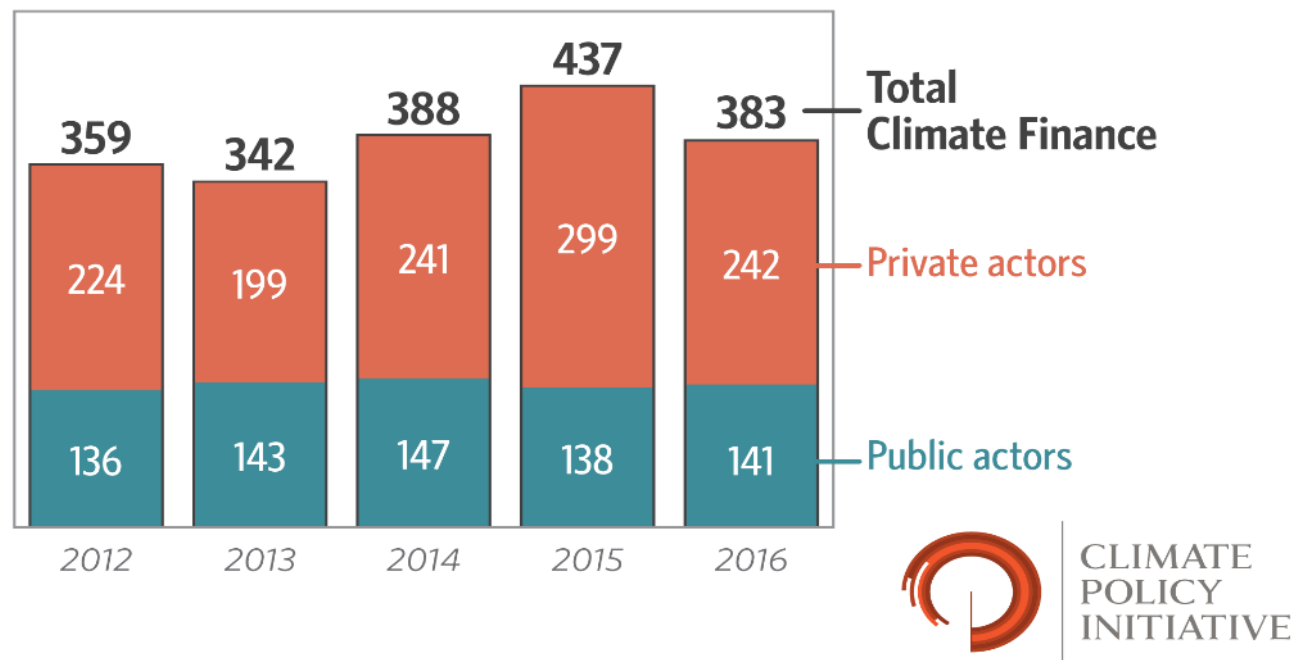
A photograph of an older man in a dark suit holding a young child. The child is wearing a colorful striped sweater and a pink hat. They are standing on a rocky shore next to a body of water, with mountains in the background. The text 'WASH Climate Resilience Financing Opportunities' is overlaid on the right side of the image.

WASH Climate Resilience Financing Opportunities

Global Climate Finance Landscape

Global climate finance flows at \$383 billion (annual average)

Global climate finance surged to \$437 billion in 2015, before falling 12% to \$383 billion in 2016 (USD billion)

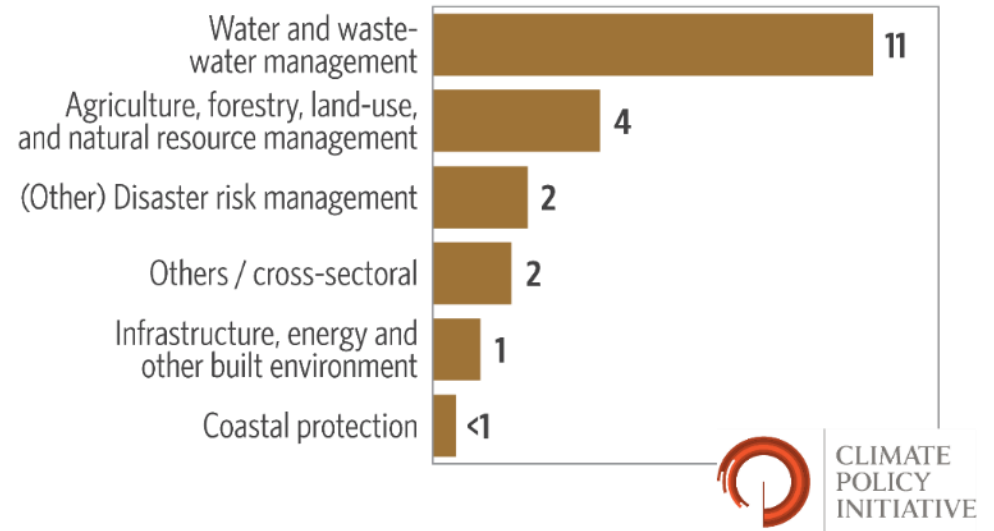


CC Adaptation Vs Mitigation Finance

- **CC Mitigation:** USD 382 billion
- **CC Adaptation:** USD 22 billion
 - Over 50% in the **Water Sector**
 - USD 1 billion in **policy and capacity development**
- **Sub-Sahara Africa:** 3% of total global climate finance share
- **Asia and the Pacific:** Over 30%

For public actors, 51% of adaptation finance went to water and wastewater management in 2015/2016

(USD billion, annual average)



Multilateral Climate Funds

Global Environment Facility (GEF)

- So far mobilized over \$15 billion in grants for more than 4,000 projects
- UNICEF-UNDP GEF Project *“Strengthening the adaptation and resilience of rural communities facing climate change in Madagascar”*

Green Climate Fund

- 53 projects approved so far
- 22 in Asia Pacific followed by 21 in Africa
- 40% CC Mitigation; 31% Adaptation; 29% Cross cutting projects
- Almost **15 projects approved** in the **Water Sector** with over **USD 1bn investments**

Adaptation Fund (AF)

- \$460 million mobilized in 10 years

Recommended Action Points

- **Keep the house in order and build a track record**
 - Environmental and social safeguards
 - Gender mainstreaming
 - Fiduciary standards
 - Project / programme Management Standards
 - Address Climate Change in the CPD
 - Monitor and quantify impacts – including SDG, Climate Change benefits and Carbon emissions - from ongoing projects and programmes
- **Know the national climate finance landscape**
 - Invest in relationship building with the National Climate Focal Point – Ministry of Environment
 - While awaiting accreditation or to gain experience with resilience programming, partner with others
 - Support national entities including line ministries in preparing/implementing initiatives
 - Leverage financing in parallel with traditional partners such as bilateral/private sector/foundation partners. Multilateral Climate Funds prioritize projects with blended finance

Next Steps



Assess Climate impacts on WASH in your country and look for entry points:

- Seek technical support to run the WASH Risk Assessment methodology
- Pre-analysis using existing research and data
- Convene a sector consultation
- Particularly useful for use during CPD development and prioritizing areas for programming

Decide which options are most appropriate for the local context:

- Use the two technical briefs on Appraising Options and Options and Options for climate resilient WASH to determine this
- Reach out to Regional Advisors and UNICEF HQ for more advice or examples of where such approaches have already been implemented