

Monitoring climate resilient WASH services and community resilience: Are we ready?

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#WaWF23

Monitoring climate resilience & WASH

There are different aspects and levels to consider:

- Global level, in relation to the UNFCCC and the Paris Agreement
- National / Sub-National / Local-project levels
- Monitoring processes/outputs vs. outcomes
- Monitoring resilience of the WASH systems and services themselves
- Monitoring resilience of the communities (linked to WASH services)



Challenges to consider in monitoring climate resilience

Long and short
timeframes

Uncertainty

Availability of
baseline data

WHAT DO YOU THINK?

Resource
constraints

Contribution and
attribution

Varying use of
definitions
and success

- Indicators can simplify information about complex phenomena to improve communication
- They can be quantitative or qualitative
- Indicators for climate resilient WASH services should be SMART (specific, measurable, achievable, relevant and time-bound)
- Indicators may be used at different points in the results chain:

Activity indicators

Output indicators

Outcome indicators

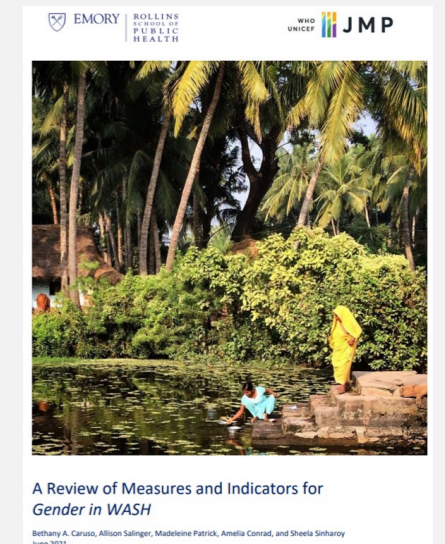
Monitoring climate resilience at global level

- **Global Goal on Adaptation** (Paris Agreement) on the making “to enhance adaptative capacity, strengthen resilience and reduce vulnerability to climate change” (to be adopted at COP28)
- **Party driven on-going Work Programme facing challenges:** lack of universal, global metrics to measure progress across diverse contexts
 - Only 26% of countries have dedicated monitoring and evaluation systems in place for adaptation
 - Key upcoming discussions in 2023 on methodologies, indicators, data and metrics, monitoring and evaluation
 - Discussion on vertical integration across levels: how the adaptation processes at the local level could be reflected upward



WHO/UNICEF Joint Monitoring Programme

- WHO/UNICEF JMP and GLAAS responsible for global monitoring of progress on drinking water, sanitation and hygiene
- Build on efforts to monitor safely managed services (necessary not sufficient)
- Joint review of opportunities for enhanced monitoring of climate resilient WASH services during 2023
 - Scope: WASH vs WRM vs Disaster Risk Reduction
 - Scale: Country/region/watershed/project/service
 - Measures: Input/output/outcome/impact
 - Data sources: household/local govt/ministry, regulator
 - Timeframe: short-term vs long-term changes
- Expert review, prioritization, testing now → routine monitoring post-2030



Indicators at national, subnational, local levels

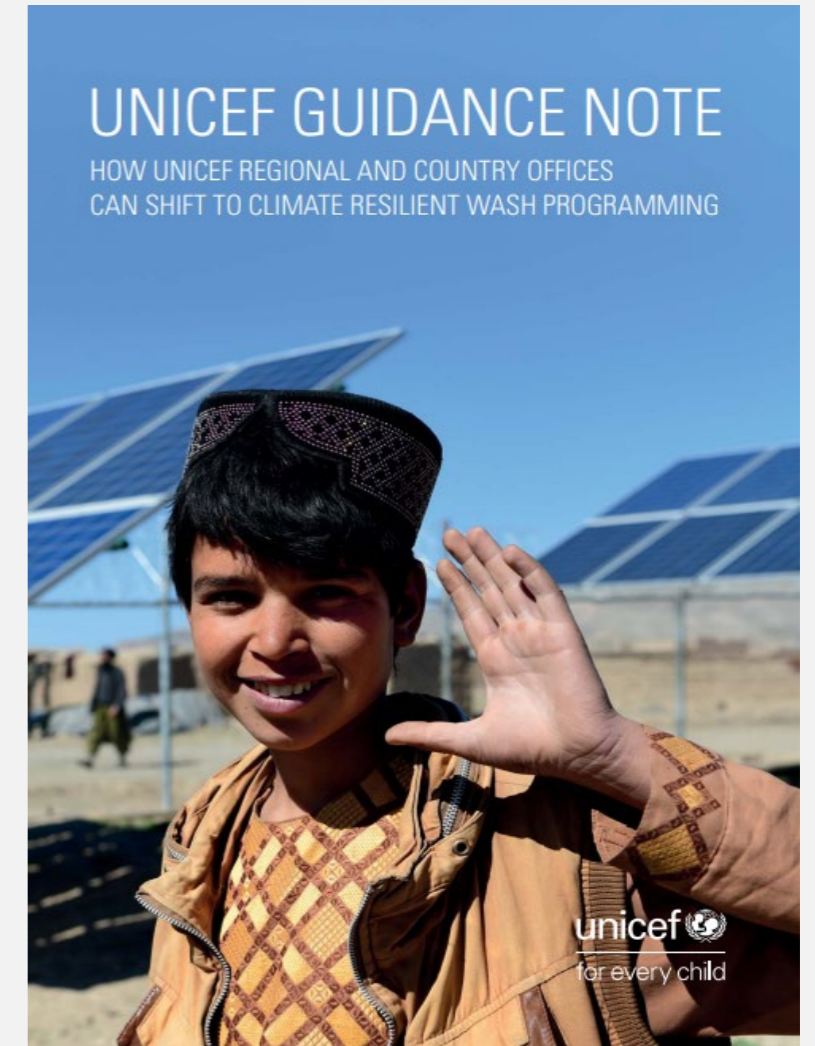


Outcome/output/activity	Indicator
Intermediate outcome: An enabling environment conducive to climate resilient WASH services and communities	Perceived adequacy of the enabling environment for climate resilient WASH services and communities
Output: Knowledge of climate risks generated and shared	Perceived adequacy of available evidence on the potential impacts of climate change on the WASH sector
	Do national WASH related ministries and departments understand climate risks and how best to respond to these?
	Is understanding of climate risks shared amongst experts and stakeholders?
Activity: Improving understanding of climate risks	Has a national climate risk assessment been completed for the WASH sector?
	Are key national government agencies involved in carrying out climate risk assessments?
	Have government-led impact evaluations, which include the impact of climate, been carried out in the past 5 years?
	Is a process in place to review and update risk data each year?
Activity: Understanding resilience of technology types	Percentage of water supply and sanitation technologies screened according to their suitability to withstand climate related shocks and stresses

UNICEF Shift to climate resilient WASH programming

Monitoring processes to achieve resilience in WASH:

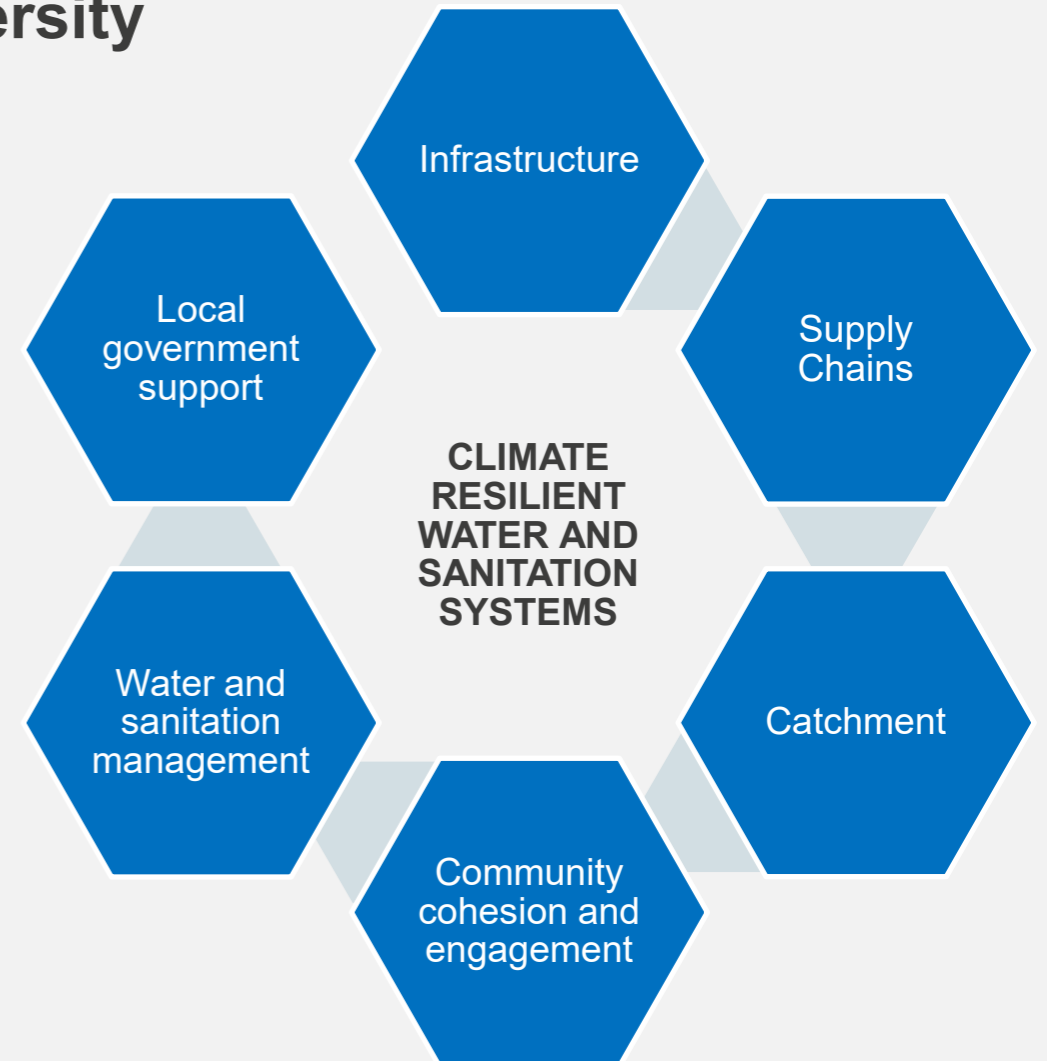
- The country has undertaken a WASH risk analysis and understands what are the most critical climate risks to WASH services and communities
- Data is collected on a regular basis on the impacts of climate change on water resources and WASH services. The country is building a strong causal relationship, and a strong climate rationale.
- The country has appraised options to address identified risks at national, sub-national and local levels
- A set of SMART indicators (and measurement methodology) has been developed for the identified options



Measuring climate resilience of water & sanitation systems

The How Tough is WASH Framework by Bristol University

- 6 Resilience Domains defined
- Indicators developed for each domain to allow users examine how their systems and services respond to existing climate variability and extremes
- Scoring systems for indicators:
 - From 1 (low resilience) to 5 (high resilience)



Application of the How Tough is WASH Framework

Results for water supply systems in Nepal and Ethiopia

	Median domain score for water supplies in ETHIOPIA (n= number of systems)				Median domain score for water supplies in NEPAL (n= number of systems)		
Domain	Protected well with handpump (n=14)	Gravity-fed scheme (n=2)	Spring on spot (n=3)	Borehole with mechanised pump (n=1)	Protected well with handpump (n=7)	Gravity-fed scheme (n=6)	Borehole with distribution (n=2)
Environment	3	2	2	3	2	3	4
Infrastructure	3	3	3	3	3	3	3
Management	2	2	2	2	1	2	3
Inst. support	2	2	2	2	1	1	3
Community governance	3	3	4	3	2	4	3
Supply chains	3	3	2	2	2	2	4
Overall resilience score	16	15	15	15	11	15	20
Resilience category	Medium	Medium	Medium	Medium	Low	Medium	High

Environmental indicators of climate risks to WASH services

Why more indicators?

Climate-driven changes to the environment threaten WASH. We need to monitor emerging risks, and use this monitoring data to trigger preventive action.

What data are available that can be used?

Hydrological (e.g. rainfall, streamflow, groundwater) and other environmental data are increasingly available.

How can the data be used?

If a known degree of environmental change disrupts WASH, we can monitor that change and act. For example, if 200mm/day rainfall is determined to cause widespread sanitation containment overflow, heavy rainfall can be monitored and pre-emptive action taken.



WaterAid staff examines gauge for monitoring water levels in a storage tank

Monitoring the relationship between WASH and community resilience

- **Why?** Monitoring how WASH contributes to community resilience could help *better target WASH interventions* to improve that contribution, and help us access resources for the WASH sector
- **Evidence already exists, and can be strengthened:** IPCC 2022 and other sources make clear that water and sanitation are important adaptation measures to protect health and well-being. There are other links to monitor.

How can multiple use systems for WASH and agriculture support livelihoods and resilience to drought?

To what extent do skills gained in climate resilient water safety planning support improved community capacity to anticipate and respond to risks in other sectors?

Key take-aways

- **Time to act!:** Are we ready? There is growing demand and pressure in the sector to monitor climate resilient WASH
- **Share lessons and decide priorities:** Many sector actors are trialling different indicators and approaches, need to consolidate lessons and converge on priority indicators (both process and outcome) at different levels
- **Recognise different monitoring purposes:** The purpose of monitoring and type of indicators will differ, depending on the level at which one is working (global, national, local, organisational, and service levels)

Thank you!

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