

WASH SDG Programme

Global Learning and Knowledge Development: WASH AND CLIMATE CHANGE

Community of Practice: Briefing Note –
Arjen Naafs and Vera van der Grift

Learning Clinic Webinar: Climate change, Water resources & WASH learning
clinic WASH SDG
19 July 2022

Evidence shows that 90% of the natural disasters are water related. WaterAid identifies with two points of interface between climate change and WASH; The climate change impact on people's access to WASH services, and Access to WASH services as building resilience to climate change (CC) impacts.

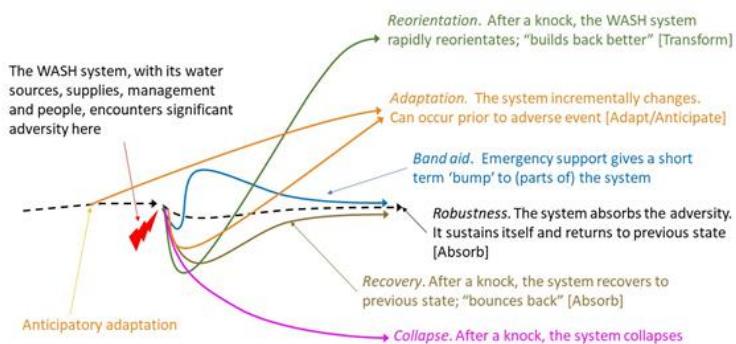
Agenda – full recording here: <https://youtu.be/iauXXCTp75c>

Theme	Druation	Colleague	Presentation download
Welcome and introduction	5 min	Arjen Naafs	Presentation here
Scene setting	20 min	Vincent Casey	Presentation here
Question and Answer	10 min		
Case study 1: Uganda	10 min	JESE/WAI / Hanifah Kasule	Presentation here
Case study 2: Bangladesh	10 min	WAI/ Digbijoy Dey	Presentation here
Case study 3: Nepal	10 min	Plan International/ Durga Uprety	Presentation here
Open discussion	20 min		
Next steps & closing	5 min	Arjen Naafs	

WASH and Climate Change – Take Home messages ...Water component



Vincent Casey,
Senior WASH
Advisor at
WaterAid.



**Programme guidance for
climate resilient WASH**
October 2021



Climate change impacts on people's access to WASH services:

Rising temperatures, increase in frequency and intensity of extreme events (droughts, floods, cyclones), Rainfall uncertainty, and Sea level rise are climate change effects with direct effects on drinking water access. Climate change is however not working alone, other contributing factors to a limited access to WASH services include gender inequality, poor governance, poor sanitation, and poor urban planning among others.

How WASH builds resilience to climate change effects and impacts:

WASH services are an essential component for increased resilience and adaptation to climate change.

- ✓ Access to WASH builds resilience with increasing water supply services in times of scarcity, and increased water storage which act as a buffer in times of crisis.
- ✓ The water recharge and aquifer are underground water resources in fossils. While these reservoirs cannot be impacted by climate change, they can be diminished by demand for water resources, and cannot be replenished if exhausted. The surface water resources on the other hand are affected by climate change and may be restored with concerted efforts to rehabilitate their catchment areas.
- ✓ Water Resources Management calls for an understanding of the ongoing risk, and the scarcity and abundance patterns of the water resources.

Pathways to climate resilience in WASH demonstrates that Adaptation provides the best outcome to withstand a climatic hazard or its effects better. Adaptation can occur before an event happens or after and Water Aid is following the Adaptation approach to arriving to resilience through the following objectives:

- (i) Improve resilience of people facing poverty and marginalisation to CC,
- (ii) Ensure WASH services and behaviours are resilient to CC, and
- (iii) Move to low carbon/GHG technologies that are feasible to mitigate climate change.

WaterAid has since adopted new approaches to work to better integrate climate change, e.g.: applying a holistic systems approach to programming; Detailed analysis of the local situation (examining climate hazards, vulnerabilities and implications for WASH services and behaviours); Localised monitoring of climate risks and water demand; More redundancy, contingency, and durability for WASH infrastructure; and Coordination with other sectors (environment, agriculture) among others.

Building more climate resilient technologies to climate proof WASH investments is considered a limiting factor by Water Aid. Investments should instead be more directed to support local and national governments to mobilise resources to be able to recover from the effects of climate change such as the destruction from cyclones. Innovation and technologies for climate resilient WASH are still important and there should be guided by the local context and problems on the ground.

Case Studies

Uganda - Construction of Trenches as a Flood Control Measure

Flooding is a climate change effect, and the problem is exacerbated by limited local capacities (poor households), land degradation (loss of forest and vegetation cover), and low water holding /retention capacity of the soils in the area. The socio-economic impacts range from destruction of homes and latrine, pollution of boreholes, unable to attract brides to the area for marriage, to displacement/ migration. Construction of trenches with retention points into gardens and ponds for animals and watering gardens was initiated as a flood control measure and adaptation to climate change effects.

The following positive outcomes are observed: Reduced flooding; Water storage enhanced for agricultural production; Water channelled to River Agago (recharging the water resources system); and Grasses planted along the heaps of soil to reduce run-off and siltation of the trenches

Bangladesh - WAI Programme.

The climate hazards are analysed in context and tailored solutions are identified that are location specific. Interventions have included lobbying and advocacy, and capacity building for local governments and WASH entrepreneurs. Local level monitoring through a mapping of households that are at most disaster risk and defining the type of disaster they are facing and how they are responding has generated information to match the challenge to a most feasible, practical and location specific solution.

Among the challenges is a limited understanding of the links between climate change and WASH for local governments, and the high cost of disaster resilient technologies. Building on the WaterAid reflection on climate resilient technologies, investment in strengthening capacities to mobilise resources to respond to effects of climate change may be a more practical solution.

Nepal - WASH SDG on Climate Change

Focus is on understanding the impact of climate change in the water supply system (WSS). Risk assessments are conducted to inform WSS design, particularly the risk of the WSS components (pipelines, reservoirs, etc) to climate change events, risk in the WASH project cycle, risk to the beneficiaries (incidence of disease), and the risk to the water supply surrounding (ecological risks). A Water Safety Plan (WSP) has been developed based on the WHO guidelines, and addresses issues of source protection, water quality, water measurements, and operation and repair fund.

Key challenges is the limited understanding by local government on the CC and WASH linkages, and low prioritisation of CC in planning processes.

Key resources:

[Water resources, WASH, and climate change](#): IRC and Water for People

[Programme guidance for climate resilient WASH](#) and [Integrating climate resilience in WASH systems](#) WaterAid

[Water and Disasters](#) and [UN World Water Development Report 2020 on Water and Climate change](#) UN Water

[Short-changed on climate change Money, water, and the people on the frontline](#) and [Women...In The Shadow of Climate Change](#)

See also past learning clinics:

1. WASH SDG programme: Climate Change and Sanitation learning clinic WASH SDG: [Climate change and Sanitation learning clinic WASH SDG 20220524 030349 Meeting Recording - YouTube](#)
2. WASH SDG programme: WASH and Climate LKD - Bonus session on Climate Change and Sanitation - <https://youtu.be/DOTQFe266ks>

Discussion points addressed (from chat box/raised by colleagues)

Ingeborg Krakkert: Are studies available indicating which pathways are suitable in which situations/geographical areas/hydrogeological areas?

Marion Iceduna: As we think Carbon footprint, the concept of the Water footprint also becomes increasingly important in the perspective of the water crisis. To what extent is data available for forward looking planning for Climate resilient WASH? This is usually a gap. What informs the siting/location of the water retention points? any assessments done before siting?

Kalonga, Hadley: Do you have any recommendations to recharge underground aquifers?

Susan Wilkinson: What reflections or experiences in respect to increasing the agency and leadership of women as a way to address vulnerabilities and bring about adaptation that make communities more resilient?

Vincent Casey (External) agree its essential to support increased agency and leadership of women who are most impacted by climate change. Some examples of our work in this area include a) understanding specific issues women face b) ensuring adaptation strategies center around solutions for women and build leadership of women - example: Jal Chaupal process in India.

Forthcoming learning clinics

Feel free to provide feedback and suggestions [here](#) and see the feedback received till date [here](#)

The next learning clinic is scheduled for **Tuesday 27th of September about WASH and Climate finance from 9:30-11:00 Netherlands time**. The session will be with scene setting by Catarina Fonseca and examples from Nepal and Uganda. If you have anything you would like to share from your sub-programme, please contact [Vera van Der Grift](#). Should you have questions in advance, please submit them [here](#).

