

# Climate change and WASH

## Background to our work on this topic

Water is at the centre of the climate crisis. As sea levels rise and the water cycle intensifies, bringing about extreme changes in water quality, precipitation and flows of freshwater, water insecurity is the primary way in which people will experience climate change. Safe sanitation is both critically affected by water insecurity and presents public health risks due to flooding and other impacts. Resilient water and sanitation services are key to bolstering water security under climate change.

And although they contribute the least to global heating, marginalised communities stand to have their water, sanitation and hygiene (WASH) services affected the most acutely, potentially further entrenching their disadvantage. The challenges to be addressed are complex, with substantial uncertainty about how society and nature will respond in the future.

The University of Technology Sydney's Institute for Sustainable Futures (UTS-ISF) leads applied research to support the global WASH community to tackle the climate crisis head on. We take a pluralistic approach to understanding and responding to climate impacts in recognition of the multi-faceted nature of climate change and the diversity of values at the heart of the possible solutions.

## Our recent thinking and expertise

Transdisciplinary research principles guide our approach to climate change and WASH. We build on knowledge from academic and professional fields in social science, environmental science, engineering and more to develop new thinking on how climate change affects equitable WASH services and ways of responding. We partner with civil society, community-based, government, and rights holder organisations to recognise and highlight place-based knowledge on climate-WASH interactions and contextualise solutions that are meaningful, relevant and valuable to local stakeholders.

Our experience working in low- and middle-income countries in the Asia-Pacific region spans a range of resilience and mitigation projects on urban sanitation, rural sanitation and rural water services. Under the Water for Women Fund, our work has included the development of new participatory community-based activities to facilitate community members to talk about climate impacts on WASH, a quantitative measure on links between gender equality and climate, and innovative methods for exploring government officials' perceptions of climate impacts on WASH.

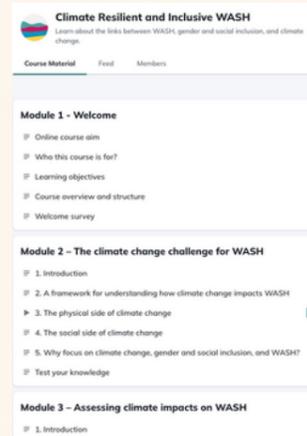
There's much more to see - from designing climate resilient sanitation technologies to measuring emissions from onsite sanitation to integrating climate risk messaging into community-led total sanitation (CLTS) - [at our website](#).

# Selected examples of our work on climate change and WASH



## **Climate Change Response for Inclusive WASH (CCRIW)**

Guidance notes, case studies, and more about facilitating community members to identify climate risks to rural WASH services and solutions. Developed with Plan International Indonesia and WaterAid Timor-Leste.



## **Climate Resilient and Inclusive WASH Online Course**

A free, self-paced course that covers fundamental concepts, tools, and case studies relating to climate change and WASH for WASH program and project leaders.



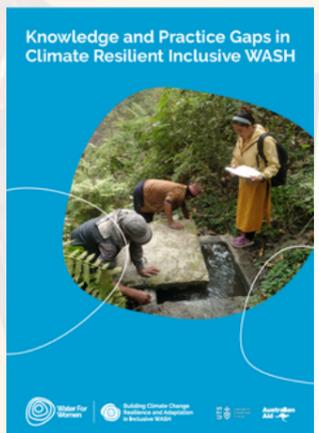
## **Inspiring local governments to mainstream climate action in WASH: Experiences from Nepal and Lao PDR**

A case study on the application of the Q-methodology to identify motivators and barriers for local government officials in Lao PDR and Nepal in addressing climate impacts on WASH.



## **WASH Gender Equality Measure (WASH-GEM) Climate Module**

A module of survey questions to explore climate-gender-WASH linkages as part of the broader WASH-GEM tool.



## **Knowledge and Practice Gaps in Climate Resilient Inclusive WASH**

An overview of the contributions of the Water for Women Fund to the climate resilient WASH space (circa April 2022) and identification of key knowledge and practice gaps to be filled.



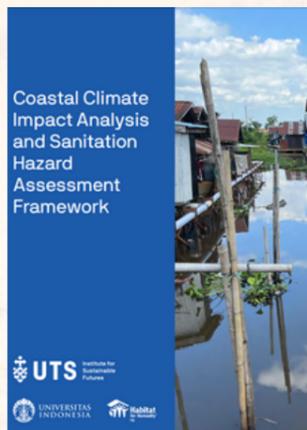
## **ClimateFIRST**

A framework to support sanitation commercial and NGO implementers, and research and development personnel, to assess and improve the resilience of sanitation technologies.



## **Urban sanitation and climate change: A public service at risk**

Landscape study that highlights the evidence and challenges and presents a collective learning agenda to progress climate resilient urban sanitation.



## **Coastal Climate Impact Analysis and Sanitation Hazard Assessment Framework**

A handbook for city governments in low- and middle-income countries to assess and respond to the risk of sea-level rise for sanitation services.



### **Environmental Indicators of Climate Risks to Inclusive WASH**

A learning resource to help WASH service authorities and their supporting civil society organisations to reflect on the indicators they could use in their own contexts to monitor climate risks to WASH.



### **Rural sanitation and climate change: Putting ideas into practice**

A framework for understanding impact pathways of climate change on rural sanitation.



### **Mainstreaming climate risks into rural sanitation programming in Lao PDR**

A case study presenting lessons on integrating climate risk considerations into a CLTS programme.

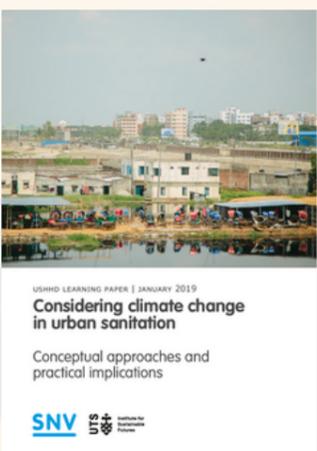


### **UNICEF Indonesia - Sanitation and CC report and journal paper on co-developing LG actions**

A framework for climate resilient citywide inclusive sanitation to support local and national governments to engage with the complexity of climate change and urban sanitation.

[Read the Journal paper](#)

[Read the Report](#)



### **Considering climate change in urban sanitation**

A conceptual approach to climate change considerations in urban sanitation policy and programming.



### **Climate, Sanitation and Health**

A discussion paper presenting the critical links between climate variability, impacts on sanitation and the implications for health.

For more information: [www.uts.edu.au/isf](http://www.uts.edu.au/isf)

For our WASH projects and resources: <https://www.uts.edu.au/isf/explore-research/international-development/water-sanitation-and-hygiene-wash>

Who we are: We work to create a world that is socially, ecologically and economically just and safe, where everyone has the resources and skills they need to flourish. UTS-ISF brings together expertise from a diverse range of disciplines to deliver practical solutions for our partners, and to empower our students to effect positive change in the years to come.

Let's collaborate: For more information or to collaborate with us, please contact Jeremy Kohlitz, [Jeremy.Kohlitz@uts.edu.au](mailto:Jeremy.Kohlitz@uts.edu.au)