Climate resilient water safety planning

Lessons learned from practical implementation and auditing in Africa and Asia

Long-term planning for a safe and adequate drinking-water supply should be set in the context of increasing uncertainty arising from changes in climate. Water safety planning offers a systematic, proactive framework assess and manage priority risks from climate variability and change.

Climate resilient water safety plans were piloted by the World Health Organization (WHO) in Bangladesh, Ethiopia and Nepal between 2013-2018 as part of a Foreign, Commonwealth & Development Office[1] (FCDO, UK)-funded project on *Building adaptation to climate change in health in least developed countries through resilient water sanitation and hygiene*. A national programme of water safety plan (WSP) auditing was undertaken in 2018/19 with a particular focus on climate resilience, to learn lessons from the pilot WSPs and adapt the programme in advance of future scale-up.

Assessing source-protection measures in Nepal (Credit RM McKeown/WHO)

Through this programme of piloting, the following common lessons emerged:

Caretaker managing a community tap stand in Ethiopia (Credit RM McKeown/WHO)

Important to "get started": despite many knowledge gaps and uncertainties associated with climate projections, it is important to get started with what the WSP team does know, document the unknowns, and improve incrementally over time once experience and resources grow, and external climate-related support becomes available.

Mechanisms for access to external climate expertise should be in place: many WSP teams lack the necessary climate/hydrological experience; adequate support mechanisms should be in place for WSP teams to access local, district or national expertise on an ad hoc basis as required. In particular, support is needed for accessing and integrating climate information, as WSP teams may have challenges navigating and downscaling the wealth of complex "big" climate data/information; WSP teams are encouraged to get started, and make

[1] Previously the Department for International Development, UK.

use of existing climate summary reports where available as a first step (e.g. national/regional climate vulnerability assessments).

In resource limited settings, basic operational and management best practices should be in place as the priority: ensuring adequate water treatment and disinfection is paramount to protecting public health; basic investment in water treatment and disinfection operations, management and monitoring practices will result in immediate drinking-water safety gains and provide benefit over a broad-range of future climate scenarios.

Assessing flood risks in the a distribution system in Bangladesh (Credit RM McKeown/WHO)

Robust national frameworks and guidance materials can support effective scale-up efforts: any weaknesses in existing national WSP guidance materials and templates will scale-up to larger issues nationally; ensure lessons from regular review and/or auditing programmes are reflected in updated national materials, to ensure a solid foundation for future climate resilient WSP roll-out.

These valuable lessons are informing the revision of national climate resilient WSP frameworks and the development of tailored guidance materials to address key knowledge gaps and challenges through an FDCO-funded project on *Delivering climate resilient water and sanitation in Africa and Asia* (2018-2022).

These learnings are equally applicable to water safety planning efforts in general. For more information see the WHO WASH reflections piece on Water safety planning: What have we learned so far?

World Health Organization

UKaid
from the British people