

Environment and Climate Risk Assessment in the ECT WASH Program to realise climate-resilient WASH services

The ECT WASH (Environmentally Sound, Climate Resilient Transformation of Humanitarian WASH) program is a global initiative aimed at strengthening climate-sensitive water, sanitation, and hygiene (WASH) services in fragile and disaster-prone regions. Implemented across thirteen countries by the consortium of Arbeiter Samariter Bund, arche noVa and German Toilet Organisation, together with local partners in the countries, the ECT WASH integrates environmental risk assessments, nature-based solutions, and participatory approaches to

enhance community resilience. By incorporating environmental sustainability, understanding of climate sensitivity and disaster preparedness into WASH interventions, the program ensures that vulnerable communities can access safe water and sanitation while adapting to climate change. Through collaboration with local partners, governments, and humanitarian actors, the ECT WASH Program fosters long-term solutions that bridge humanitarian aid and sustainable development.

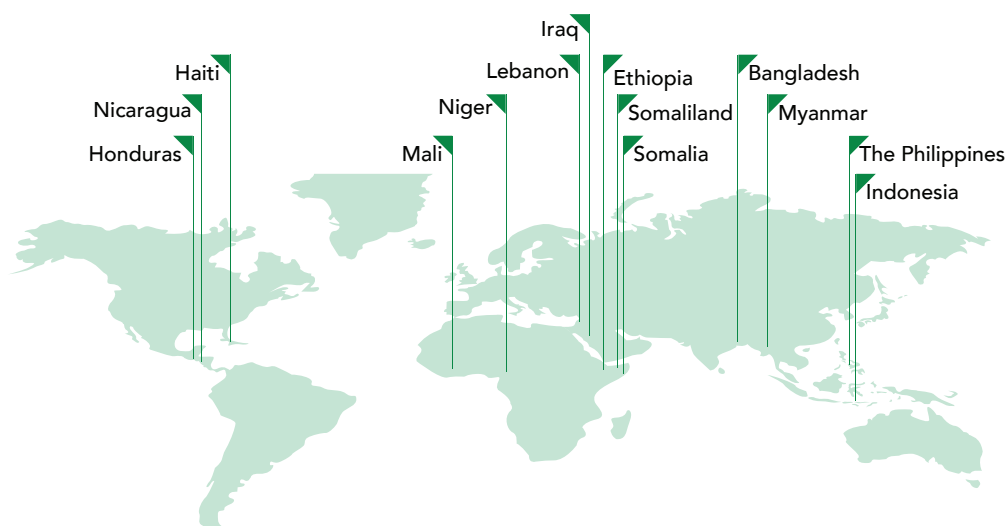


FIGURE 1.

Countries where ECT WASH works

Project Brief: Strengthening Climate Resilience through Climate Risk Assessment

In countries where the ECT WASH program is implemented, there are increasing hydrometeorological hazards such as intense rainfall, flooding, droughts, and tropical storms, posing significant threats to WASH infrastructure and services, particularly in rural and disaster-prone areas. In conflict-affected regions such as Myanmar, the Philippines, Niger, Somalia and Somaliland, these climate risks are further compounded by instability, displacement, and limited access for humanitarian actors. Ongoing tensions hinder the maintenance and expansion of WASH systems, making it even more difficult for communities in vulnerable situations to cope with the impacts of climate-related shocks.

It is therefore important to include climate risk assessments in the program to identify gaps, weaknesses, and barriers with the greatest potential to improve the overall WASH interventions. This is essential for the ECT WASH program, especially because this program intends to improve the climate resilience of WASH services.

For this reason, the ECT WASH integrates participatory community risk assessments to

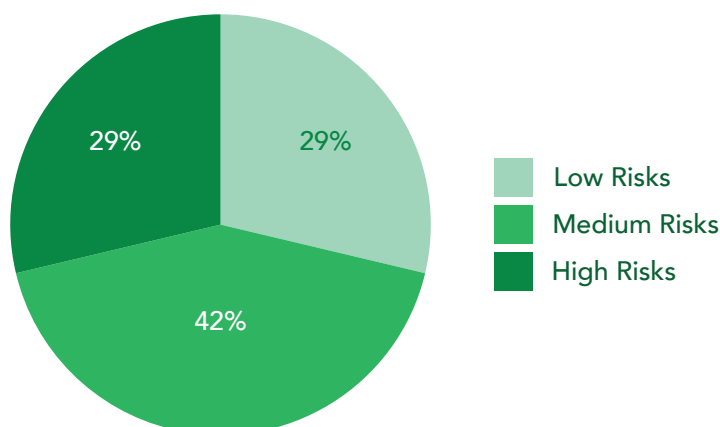
ensure that disaster preparedness and climate adaptation strategies are locally driven and inclusive. By involving community members, particularly at-risk groups such as women, persons with disabilities and the elderly, the project fosters a bottom-up approach where local knowledge and scientific data are combined to identify vulnerabilities and prioritise WASH and DRR interventions.

By using tools such as NEAT+ (Nexus Environmental Assessment Tool) and/or climate monitoring, climate projection and disaster risk analysis, partners in those countries have systematically identified climate-related risks and vulnerabilities that impact WASH infrastructures and service delivery in rural and disaster-prone areas. These assessments help inform more adaptive and inclusive programming, ensuring that communities are better prepared for the effects of extreme weather events, water scarcity, and environmental degradation. This factsheet highlights how climate risk data was gathered and used to shape WASH interventions that are both sustainable and responsive to local climate challenges.

A snapshot of environmental and climate risk assessment activities in the ECT WASH program (data as of March 2025)

- **8 countries** have integrated environmental and climate risk assessment in their program, by using NEAT+ and other local environmental and climate screening tools.
- **19 villages** have conducted environmental and climate risk assessment activities
- Climate and environmental hazards distribution in the countries through NEAT+ analysis:

Hazards Distribution in the Areas



Low risks → water contamination due to unsustainable extracted

Medium risk → land degradation beyond regeneration activities

High risk → ecosystem stress due to deforestation that exceeds regeneration activities

Reflection on the Use of Environmental and Climate Risk Assessment, particularly on the NEAT+ in the ECT WASH Programme



FIGURE 2. A discussion with local stakeholders on the use of NEAT+ in Myanmar

Specifically, the NEAT+ (Nexus Environmental Assessment Tool) has been used as a foundational tool to screen environmental risks in the ECT WASH programme. For Myanmar, for instance, NEAT+ was the first formal environmental assessment tool adopted by arche noVa Myanmar and their partners. It is marking an important shift toward integrating environmental and climate considerations into project design.

In the Philippines, NEAT+ highlights rainwater harvesting as a key solution to water scarcity, offering alternative sources for communities that face a shortage, particularly during dry seasons. This approach helps reduce reliance on diminishing groundwater and supports a more sustainable and resilient water supply. Additionally, poor waste management in humanitarian contexts can lead to serious health risks, environmental harm, and increased

flooding from blocked drainage systems. To address this, NEAT+ encourages effective waste handling practices, including proper collection, segregation, and disposal. It also promotes reducing single-use plastics and adopting biodegradable alternatives, such as incorporating reusable cloth sanitary pads in WASH kits to build more climate- and environment-resilient waste systems.

In Niger, Ethiopia, and Somaliland, NEAT+ has been effectively used not only as a technical assessment tool but also as a means to facilitate participatory engagement with local stakeholders, including community members, local authorities, and local implementing partners. Through community consultations and group discussions, NEAT+ enabled stakeholders to collectively identify and prioritise climate hazards such as drought, flooding, land degradation, water scarcity

and contamination from agriculture, livestock and conflict that directly affect WASH services. This participatory process ensured that environmental and climate risks and vulnerabilities were better understood from multiple perspectives, strengthening the relevance and responsiveness of subsequent WASH interventions.

In Indonesia, NEAT+ analysis is combined with the participative and localised disaster risk analysis and climate projection, which enable stakeholders to strengthen their awareness of inclusive disaster risk reduction (DRR) and climate risk management. Additionally, it fostered stronger collaboration among Organisations of Persons with Disabilities (OPDs), village authorities, and district governments, resulting in improved preparedness for climate-related disasters and the integration of inclusive, climate-sensitive DRR into village development plans.

While NEAT+ is appreciated for its structured approach, some limitations were identified. In all countries that have already conducted screening with NEAT+, the ECT WASH partners noted challenges in translation as NEAT+ is not available in the local language. Moreover, the terminology used in the WASH module sometimes created confusion among field staff. Additionally, several mitigation tips generated by the tool are seen as less relevant or not

locally adaptable, especially in conflict-affected or highly context-specific areas, due to their general generation of the tips.

Despite these challenges, there is a growing interest in expanding NEAT+ to other projects and geographical areas. In Myanmar, for instance, a NEAT+ training is scheduled to support its roll-out in other project locations outside the ECT WASH program. This signals a strong potential for continuing its use beyond the ECT project timeline. Similar case happens in Niger as well in which other projects use NEAT+ screening to help project staff in understanding the hazards in the project locations. Likewise, in Somalia, a cascading training for local stakeholders has a positive outcome to which some local university students rolled out the use of NEAT+ in their research project.

The examples of the use of climate risk assessments in the ECT WASH program play a critical role in managing risks across all WASH interventions. It has proven to be a valuable approach in building climate-resilient WASH systems across the ECT WASH programme countries by combining scientific analysis with local knowledge and participatory methods. Participatory approach used during the assessment activities is crucial to enable communities to better understand, prepare for, and adapt to increasing climate-related risks.

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