BANGKOK

Climate Resilience Pathways:

Water Security and WASH in Asia Pacific

Integrating NEAT+ Climate Risk Assessments to Strengthen Humanitarian WASH Resilience in Indonesia and the Philippines

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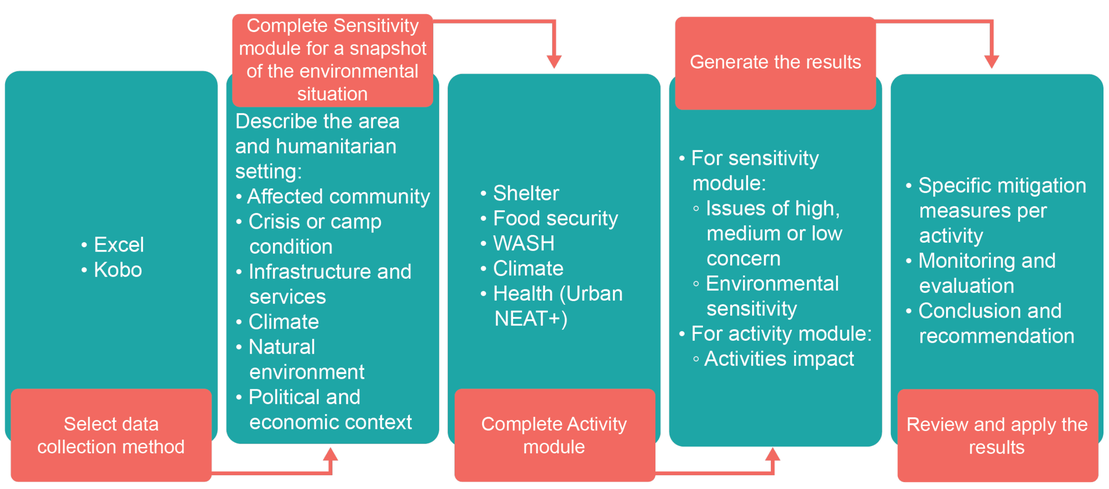
Introduction

Indonesia and the Philippines are the countries with the highest disaster risk worldwide with World Risk Index of 41.13 and 46.91, respectively (World Risk Index Report, 2024). Both are already experiencing immediate water-related impacts, including frequent cyclones, flooding, and droughts, exacerbated by climate change. These events are driven by changes in the water cycle and other hydrological factors. As a result, climate shocks disproportionately affect access to safe water, sanitation, and hygiene (WASH), particularly in communities living in vulnerable areas. The ECT WASH (Environmentally Sound, Climate Resilience and Transformation Humanitarian WASH) program, implemented by Arbeiter Samariter Bund (ASB) in South and Southeast Asia together with ACCORD in the Philippines, aims to enhance climate resilience in humanitarian WASH interventions. The program is implemented in two districts in Indonesia (Magelang and Gunung Kidul) and four municipalities in the Philippines (St. Bernard, Padre Burgos, Datu Blah Sinsuat and Datu Odin Sinsuat) with a total of 10 villages that experience climate change events frequently.

Methods



Source: NEAT+ Process Guide by UNEP/OCHA-JEU

A key component of this approach is the use of NEAT+ (The Nexus Environmental Assessment Tool) to integrate environmental and climate risk assessments into WASH planning and implementation by assessing environmental and climate-related vulnerabilities in humanitarian settings particularly in the WASH infrastructure. It helps the organizations identify and understand environmental risks and impacts of their interventions, ensuring environmental considerations are mainstreamed into humanitarian WASH activities. The findings inform the selection of WASH solutions that were low-risk, adaptive and environmentally sound.

Together with the local community, including representatives of people with disabilities, women and other marginalized groups in the community, the assessment and findings were discussed to plan a way forward by applying participatory approaches that community knowledge and concerns were included in the risk assessments and adaptation planning.

It is paramount to note that the assessment questions and modules in NEAT+ is somewhat more comprehensive than the existing local tools such as EHRA (Environmental Health Risk Assessment in Indonesia) and CDRA (Climate and Disaster Risk Assessment in the Philippines), even though in the project, the two partners along with the community only assessed the sensitivity and WASH modules.

Result and Findings

In the Philippines, NEAT+ recommends solutions like rainwater harvesting to address water scarcity to provide alternative water sources for communities struggling with limited water supplies especially during dry seasons. This helps reduce dependency on depleting groundwater and ensure a more resilient water supply for affected populations. In addition, poor waste management in humanitarian settings can cause health risks, environmental degradation, and flooding due to clogged drainage. NEAT+ promotes also proper waste collection, segregation, and disposal, reducing single-use plastics and using biodegradable materials to minimize pollution and ensure resilient waste systems in implementing WASH initiatives (e.g., the use of cloth sanitary pads instead of disposable pads in WASH kits).

Rainwater harvesting installed in a barangay (village) in The Philippines based on NEAT+ recommendations

Meanwhile in Indonesia, the result from the NEAT+ provides mitigation tips to be followed up together with the community and integrated into village disaster plans. The result consist of high, medium and low risks on natural environment (e.g. deforestation that exceed regeneration capabilities, low self-sufficiency to maintain local environment, and low capacity to manage waste water that threaten sanitation and disease transmission) as well as WASH systems (e.g., flood-prone latrines, and water sources vulnerable to salinization) and guided adaptive designs to WASH infrastructures. As the assessment is done together with the community, it allows them to gain knowledge on environmental and climate risks affecting WASH services and co-developed resilient strategies to mitigate these risks. Furthermore, the dissemination of the findings to other agencies such as local government and other humanitarian NGOs allows them to recognize NEAT+ as a valuable tool for mainstreaming environmental and climate risk in WASH policies, which is important to realise environmental and climate resilient WASH solutions.

Discussion on the NEAT+ in a village in Indonesia

Challenges and Opportunities

In the Philippines, NEAT+ recommends solutions like rainwater harvesting to address water scarcity to provide alternative water sources for communities struggling with limited water supplies especially during dry seasons. This helps reduce dependency on depleting groundwater and ensure a more resilient water supply for affected populations. In addition, poor waste management in humanitarian settings can cause health risks, environmental degradation, and flooding due to clogged drainage. NEAT+ promotes also proper waste collection, segregation, and disposal, reducing single-use plastics and using biodegradable materials to minimize pollution and ensure resilient waste systems in implementing WASH initiatives (e.g., the use of cloth sanitary pads instead of disposable pads in WASH kits).

Conclusions and Recommendations

The integration of NEAT+ in the frame of ECT WASH project demonstrates the value of environmental and climate risk assessments in strengthening WASH resilience in fragile settings. The approach offers a scalable model for other disaster-prone regions, ensuring WASH services remain sustainable, adaptive, and climate-resilient by integrating the result into local tools. Moving forward, partnerships with government agencies and humanitarian actors will be key to institutionalizing climate risk-informed WASH planning. Capacity-building efforts for local actors and the development of NEAT+ training programs can also support the widespread adoption of the tool, enabling communities to better manage environmental risks and build long-term resilience in the face of climate challenges.

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