Case Study: **Sri Lanka**

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CLIMATE RESILIENCE OF COMMUNITY MANAGED WATER SUPPLY SYSTEMS IN RURAL SRI LANKA

Background

The rural water supply scheme (WSS) in Sri Lanka is threatened by multiple climate risks such as flash floods, droughts, landslides, and salinity intrusion. Those rural water supply schemes are managed by Community-Based Organizations (CBOs) and Local Authorities and offer water to 12% of the people who live in marginalized areas through piped systems. Even though Water Safety Planning (WSP) is introduced as a risk assessment and management tool for rural WSS, only 16% of rural WSS use WSP as a risk assessment tool and they hardly include climate-resilient interventions to mitigate climate risks. 74 % of WSS have been affected by the effects of climate change. The extension of WSP into Water Safety and Security Plans (WSSP) has been identified as an essential requirement for sustaining any water supply systems in rural Sri Lanka.

Strategy and implementation

Water safety is a crucial part of achieving SDG 6.1, 6.3 and 6.6. The UNICEF Strategic Plan, 2022–2025 focuses on water sanitation and hygiene systems, empowerment of communities and climate change, disaster risk reduction, and environmental degradation. As a vital component of the ongoing UNICEF Sri Lanka country programme from 2018 up to 2022, UNICEF has prioritized ensuring the water safety and security of community-managed rural water supply systems. The implementation of Climate-Resilient Water Safety and Security Plans (CRWSSP) integrates national programming into the global and local level strategic plans.

Globally the water sector is moving away from simple water testing and towards risk assessment and management. However, with the escalating risks aggravated by extreme climate events, the extension of these water safety and security plans has become an even more essential requirement for sustaining any water supply.

To understand potential issues of Sri Lankas WSSP implementation in the rural sector, a baseline assessment of the existing situation of rural water supply systems managed by communities was initiated under UNICEF funding to:

1. Identify gaps and interventions required to improve sustainability while ensuring climate resilience
2. Prioritize CRWSSP implementation based on the information collected
3. Advocate for system improvements, based on evidence generated
4. Raise funds and locate resources locally to improve water safety and security CBOs managed water supply in rural areas.

The baseline survey was carried out by the Department of National Community Water Supply (DNCWS) using their and UNICEF's resources with the following steps:

1. Training 100 enumerators on WSSP approach and data collection tools
2. Disseminating and administrating the questionnaire
3. Digitizing the collected data
4. Implementing the Climate-Resilient Water Safety and Security Plan programme based on the recommendation of the baseline assessment.

Progress and results

Following progress was made in the Climate-Resilient Water Safety and Security Plan programme:

1. This initiative supported the DNCWS to provide wider exposure to their staff and develop their institutional capacity. The capacity-building efforts generated the following results:

a) 100 Development Officers trained on Participatory Rural Appraisal (PRA) tools, and 6 steps of the WSSP approach in rural and climate risk assessments
b) 240 Development officers were trained on climate-resilient water safety planning
c) Sector coordination was strengthened through joined efforts made to implement CRWSSP at national, sub-national and community levels.

2. As a way forward UNICEF technically and financially supported relevant government partners to develop models on CRWSSP and the following results were achieved.

a) Developed models of climate-resilient water safety and security plans for different climatic zones
b) Scaled-up climate-resilient water safety and security plans with new knowledge and technologies such as Managed Aquifer Recharge (MAR)
c) Formed a technical working group to develop the national framework for the water safety plans in the rural sector and integrate climate resilience into the rural sector development plans and policies.

3. The implementation of the Climate-Resilient Water Safety and Security Plan programme generated the following results at the outcome level.

a) The transition of Community Based Water Supply Systems to climate resilience and adaptation
b) Influence on policy changes, and development of new policies at the local level
c) Institutional capacity building
d) Identification of potential investment priorities that need to be addressed in the sector.

Lessons learned and way forward

Lessons learned from this initiative are:

1) The CRWSSP need to be prepared with the complete involvement of the relevant CBOs and beneficiaries working with all stakeholders related to the catchment and the CBO needs to take

a proactive role in complying with their assigned role and coordinating with the respective stakeholders for all activities.

2) CRWSSP extending the original WSP can be introduced as a risk assessment and management tool for rural water supply schemes. CRWSSP can be considered the best approach to establishing a preventive quality assurance system while ensuring water security.
3) CRWSSPs at the community level need historical evidence of climate change and predicted climate future. The drinking water sector needs to move away from simple water testing toward risk assessment and management, considering both natural and anthropogenic stresses.
4) With the escalating risks aggravated by extreme climate events, the extension of these water safety and security plans has become an essential requirement for sustaining any water supply with necessary policy level revisions and capacity building.

As a way forward, the DNCWS will scale up climate-resilient water safety and security plans in the rural sector taking a great stride towards progressive development of the DNCWS, providing wider exposure to their staff at different levels and resources to develop their institutional capacity.

Related links:

- WHO Guideline for Climate Resilient Water Safety Plan, update July 2015
- Climate Change and Water, IPCC technical paper VI, June 2008
- Technologies for Climate Change Adaptation, Guidebook for the Water Sector, UNEP, April 2011:
- Technology Needs Assessment and Technology Action Plans for Climate Change Adaptation

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