



Inclusive Water Resilience Accelerator Fund

Freetown, Sierra Leone

**C40
CITIES**

The C40 Inclusive Water Resilience Accelerator Fund (IWRAF) is supporting Freetown in the development of safe rainwater harvesting solutions to alleviate water scarcity.

These efforts focus in particular on reducing the disproportionate impacts on women and children, who often bear the burden of water collection and are hindered by a lack of educational and economic opportunities as a result.

What challenge did the project address?

Freetown is addressing several intersecting water challenges – including scarcity, insecurity, and seasonal flooding – through various city government initiatives. The city's challenges are compounded by limited infrastructure, annual flooding, rural–urban migration,

and other impacts of the climate breakdown – such as extreme weather conditions and heat – which further stretch the already constrained water supply. Additionally, limitations in the coverage and reliability of the piped water network force many city residents, particularly in informal settlements, to rely on other sources of water, such as rainwater collection systems. This often leads to the use of contaminated water, resulting in widespread waterborne diseases such as cholera and diarrhoea.

What did the city achieve?

The IWRAF project started with a gap analysis of the city's water policies and an inclusive assessment of 17 existing community-led rainwater harvesting facilities. A number of pilot sites within the selected city's informal settlements were identified based on the communities'

Safe rainwater harvesting solutions to alleviate water scarcity

● Freetown



water supply needs, flood risk profiles, and geographical suitability. Through a feasibility study, the city then evaluated the technical, environmental, and social dimensions of developing existing community-based rainwater collection systems into new and improved facilities, which will enhance water security, mitigate the health risks of contaminated water, and foster climate resilience in frontline communities.

Over thirty community leaders and resident groups in three prioritised informal settlements are being trained on safe rainwater harvesting techniques at both household and community scales, as well as on system maintenance, safe water conservation and usage practices, and the benefits of nature-based water harvesting solutions.

Through this project, Freetown has gained a deeper understanding of the technical and environmental feasibility, economic sustainability, and long-term benefits of rainwater harvesting in informal settlements. Participating communities have also gained greater awareness of water conservation and enhanced capacity for safe rainwater harvesting, offering actionable insights for water distributors to complement or relieve pressure on municipal systems.

How did the Fund advance equitable water resilience?

- By identifying and facilitating community-led solutions for improved access to clean water

in informal settlements, the Fund is helping the city support its most vulnerable residents, who face the greatest challenges in accessing basic services.

- Engaging community leaders and fostering practical knowledge-transfer leads to community buy-in and ownership of decentralised water solutions. The city will now work with communities to maintain the system, providing a sustainable model for collaborative water-resource management. Freetown is also able to increase its water supply capacity under the Universal Access pillar of the [Water Safe Cities \(WSC\) Accelerator](#).
- With the results of the feasibility study, the city will be able to approach funders and development agencies with a model for community-scale rainwater harvesting infrastructure. This will help to better secure funding and technical capacity for implementation, and provide additional value for the Flood Risk pillar of the WSC Accelerator. The feasibility study also supports the city in collaborating with the Sierra Leone government and the Guma Valley Water Company to integrate rainwater harvesting at the household, community, and basin levels into its broader water system and resilience strategy, and to better coordinate the implementation of basin-wide interventions.



Credit: Edward Davies & Associates

Visit [C40's website](#) for more information about the Inclusive Climate Action (ICA) Cities Fund.