



arche noVa  
Initiative for People in Need



## ECT WASH — Lessons Learned

### Implement Concrete Measures Adapted to the Local Context to Ensure Universal Access to Safe Water (Borehole Rehabilitation)

Country  
SOMALILAND

Organisation  
OWDA

Duration  
AUGUST TO  
SEPTEMBER 2024



## BACKGROUND

Somaliland, a self-declared independent region in the Horn of Africa, shares borders with Ethiopia, Djibouti, and the Gulf of Aden. With a population of approximately 4-5 million, its economy is primarily based on pastoralism, agriculture, and remittances. Despite being politically part of Somalia, Somaliland faces significant challenges in water access due to its semi-arid climate and irregular rainfall patterns. The Hawd region in eastern Somaliland, home to 90,000-100,000 people, is particularly affected by water scarcity, exacerbated by inadequate infrastructure. The community, reliant on livestock and agriculture, struggles with access to clean water, making water availability a critical issue for both livelihoods and public health.

To address these challenges, the Organization for Welfare and Development in Action (OWDA) as the partner of arche noVa (AN), in collaboration with local leaders and government bodies, initiated a borehole renovation project aimed at improving water access in the Hawd region. This project is part of the ECT WASH programme, that supports the practical implementation of WASH-related global commitments by advancing universal access to clean water and sanitation, promoting inclusive and climate-sensitive approaches, and strengthening preparedness, early warning, and anticipatory action in disaster and climate-affected areas.

The borehole, a key water source for the community, suffered from deteriorating infrastructure, frequent mechanical failures, and an unreliable fuel-powered generator, leading to water shortages, long wait times, and uneven distribution. The rehabilitation involved repairing pipelines, constructing additional animal troughs and water points, installing a protective fence, and securing the wellhead. A major upgrade included the installation of a solar-powered water system, ensuring a sustainable and cost-efficient water supply even in areas lacking reliable electricity.

The project incorporated eco-friendly practices such as efficient water use and soil erosion prevention, aligning with green aid principles to enhance climate resilience. Additionally, it emphasized inclusivity by ensuring accessibility for people with disabilities and addressing gender sensitivity, thereby reducing the burden on women for water collection. The renovation process included assessments of existing infrastructure, design modifications, and approvals, followed by construction and system upgrades. After installation and testing, the community received training on maintenance to ensure long-term sustainability before the project was formally handed over for local management. The initiative ultimately strengthened water infrastructure, improved community resilience to droughts, and provided a reliable water solution for both people and livestock.

## KEY LESSONS LEARNED

The project achieved several key outcomes, including the repair of pipelines, the construction of three animal troughs and two new water points, the installation of fencing and a wellhead for security, and the integration of a solar-powered system to ensure a reliable and cost-effective water supply.

Community engagement played a crucial role, with training sessions conducted to ensure long-term maintenance and responsible water use. Inclusivity measures were prioritized, making water infrastructure more accessible to PWDs and promoting gender-sensitive approaches that encouraged women's participation in decision-making.

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Several challenges arose during the implementation, including water scarcity during rehabilitation, the remote and difficult terrain that delayed material transportation, and high operational costs due to reliance on fuel-powered generators. These challenges were addressed through strategic planning, such as implementing a phased schedule to allow controlled community access to water, planning logistics in advance to ensure timely delivery of materials, and transitioning to solar-powered water systems to reduce dependency on expensive fuel.

Key lessons learned from the project highlighted the importance of sustainable energy solutions, with solar-

powered systems proving to be a cost-effective and reliable alternative. Active community engagement facilitated smooth implementation and long-term ownership of the project, reinforcing the need for local involvement in future initiatives. Gender and inclusivity considerations were essential in ensuring equitable water access, improving efficiency, and reducing the burden on marginalized groups. Strategic planning was crucial in overcoming geographical challenges, with detailed contingency measures helping to mitigate delays. Furthermore, long-term maintenance planning, including regular monitoring and training, proved necessary to ensure the sustainability of the infrastructure and strengthen local ownership.



## RECOMMENDATIONS

Recommendations for future projects include expanding the use of solar-powered water systems and renewable energy solutions, fostering community-led maintenance programs to enhance long-term sustainability, promoting gender inclusion and accessibility considerations in project design, developing contingency plans for remote project sites, and establishing monitoring and evaluation mechanisms to track infrastructure performance. By incorporating these lessons, future projects can achieve greater impact, resilience, and sustainability, ensuring safe and reliable water access for all.