



MILLENNIUM WATER
ALLIANCE

LESSONS FROM PRACTICE

WASH in Schools Project Implementation in Dera, Amhara Region

February 2023

Contents

Executive Summary.....	1
1 Background	2
2 Major Achievements Accomplished Thus far	2
3 Lessons From the Implementation Process	4
3.1 Enhancing Engagements: Strategies, and Practices	4
3.2 Organizational Cooperation and Partnership.....	5
3.3 The Handover Document Must Include all WASH Data	6
3.4 Integration of WASH Infrastructure Construction.....	6
3.5 Regular Water Quality Tests	6
4 Summary of the lessons learned.....	6

Executive Summary

The WASH in Schools initiative, funded by the Conrad N. Hilton Foundation and implemented by the Millennium Water Alliance (MWA) in partnership with Splash and FH Ethiopia, targets the enhancement of water, sanitation, and hygiene (WASH) facilities in rural schools in Dera Woreda. This project seeks to create a conducive environment for students, promoting better hygiene practices and academic performance through improved WASH services. The initiative is designed to test and potentially scale up a school-based safe water supply model, leveraging the combined expertise and experience of the involved organizations in both urban and rural settings.

Despite challenges such as delayed starts and regional security concerns, significant strides have been made. Key achievements include the selection of three rural schools for the pilot, comprehensive baseline assessments, and the development of community-driven behavior change initiatives. Infrastructure improvements have been completed, including the construction of drinking and handwashing station walls, elevated reservoirs, and sanitation facilities, alongside regular water quality testing to ensure safety.

The project has illuminated several critical lessons:

1. **Stakeholder Engagement:** The success of WASH interventions hinges on the active involvement of the entire school community, ensuring sustainability and ownership.
2. **Organizational Cooperation:** The collaboration between FH Ethiopia, World Vision Ethiopia, and MWA has been instrumental, particularly in sharing vital data for infrastructure planning and execution.
3. **Infrastructure Integration:** Challenges in integrating water access with sanitation facilities have been noted, underscoring the need for a more cohesive approach in future projects.
4. **Regular Water Quality Monitoring:** Ensuring the safety of drinking water through regular testing is paramount, especially in rural school settings prone to contamination risks.

In conclusion, the WASH in Schools project in Dera offers valuable insights into the importance of community engagement, organizational collaboration, and strategic infrastructure planning. These lessons are crucial for the sustainability and scalability of WASH interventions in similar contexts. We extend our gratitude to the Conrad N. Hilton Foundation, Splash, MWA, and FH Ethiopia for their support and partnership in this transformative initiative.

1 Background

The provision of safe water, improved sanitation and hygiene facilities, and the promotion of good hygiene practices in schools are essential to creating a conducive teaching and learning environment.

Access to water, sanitation, and hygiene (WASH) services in schools provides an enabling environment for students to maintain personal hygiene and environmental sanitation for healthier schooling and better academic performance. A comprehensive school-based WASH intervention must plan for adequate provision of WASH services, community involvement, effective hygiene education, and proper management and maintenance of facilities.

Schools offer ideal opportunities for hygiene and sanitation education using participatory approaches. The school community could play a multiplier role in sanitation and hygiene promotion both at the school and in the surrounding communities as outreach services.

MWA, in collaboration with program partners, has been implementing school WASH activities under the Sustainable WASH Program (SWP) in Dera Woreda since 2019 with funding from the Hilton Foundation. Currently, MWA, in partnership with Splash and FH Ethiopia, aims to increase access to safe water and improved sanitation and hygiene services in targeted schools, and conduct awareness and behavior change activities on the importance of good hygiene and proper use of sanitation facilities in conjunction with safe menstrual hygiene management interventions.

This project aims to pilot a school-based safe water supply model that has already been implemented in urban schools in Addis Ababa and Bahir Dar. The main objective of the project **is to test the feasibility of the approach in the rural setting to explore the possibilities of scaling up**. The project builds on Splash's work in urban areas and MWA's experience in rural Amhara. The School WASH Project includes the implementation of new infrastructure models for handwashing and drinking stations, ensuring adequate storage capacity, water treatment systems, and the adoption of proven behavior change models within schools.

The goal of the project is to create a replicable model that can be implemented by local governments and MWA members in the three focal woredas and beyond. The specific objectives of the project are:

- Research and co-design a comprehensive school WASH package for rural Amhara, including sustainable water supply, handwashing, behavior change, and menstrual health.
- Implement the contextually appropriate WASH package in three selected pilot schools with the assistance of MWA's partner, FH Ethiopia.
- Enhance the capacity of schools and MWA's implementing partner to identify and address issues related to functionality and maintenance of WASH infrastructure, thereby promoting sustainability.

2 Major Achievements Accomplished Thus far

Despite facing numerous challenges, including a delayed start and regional security issues, the pilot project has made significant progress through several key activities.

School Selection & Kick-Off: Despite facing numerous challenges, including delayed start and regional security issues, the pilot project has made significant progress through several key activities.

Three rural public schools with existing sanitation facilities and powered water access were selected for the project. A launch workshop was conducted to engage stakeholders and build momentum.

Baseline Assessment: The project also conducted a baseline assessment. Splash M&E, MWA, and FH Ethiopia conducted a thorough baseline assessment, evaluating the existing WASH facilities, student and teacher awareness, and school population data.

Community-Driven Behavior Change: Consultants hired by Splash, with facilitation from MWA and FH Ethiopia, conducted Key Informant Interviews (KIIs) and Focused Group Discussions (FGDs) with diverse stakeholders to drive community behavior change. This participatory approach ensured the development of culturally relevant and effective behavioral change manuals for rural contexts.

Collaborative Monitoring & Support: A Regional Technical Working Group (RTWG) was established for the pilot project and conducted field monitoring and reflection sessions, providing valuable feedback and support. The construction of drinking and handwashing station walls has been completed. Masonry and concrete elevated reservoirs have been constructed at all three schools. Pipe installations from water sources to reservoirs, VIP latrines, and station areas have been completed.

Water quality tests were conducted at the three schools before construction was completed and any water treatment methods were installed. The test results indicate that the water at Tebabary and Shobli primary schools is E-Coli positive and not potable. Chlorination is necessary before consumption. However, the water at Wanzaye primary school is E-Coli negative and potable for drinking. Sanitary follow-up is still necessary.

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	Amhara Public Health Institute	Document No: APH/BRL/FO 5.5-070
	Bacteriological water quality analysis report form	Version No: 01
		Page: 1 of 1
		Effective Date: 14/08/2017

Specimen ID: UL-BDLS J.FHE Zone: _____ Woreda: _____
 Site of specimen collection: Tebabary Primary School (protected) Date specimen collected: 21/7/2017
 Time of collection: 10:00 Date specimen received: 21/7/2017
 Time received: 21:00 Sample collected and submitted by: Amare Abene

Nature of sample:-
 Pipe water
 Spring water
 River
 Tshel
 Chlorinated
 Unchlorinated
 protected


RESULTS
 Presumptive total coli form count at 37°C/48hrs/100ml: T/100 11cc/ml
 Escherichia Coli Type I: Present
 Other Coli forms isolated: Present (Coliforms isolated)

Comments:-
 Bacteriological ally the water is not potable and chlorination necessary
 Bacteriological ally the water is potable and sanitary follow-up necessary
 Bacteriological ally the water is potable

Test done by: MGA Sign: [Signature] Date: 22/7/2017
 Reviewed by: ul Tul Sign: [Signature] Date: 22/7/2017

Authority for Issue: APHI Authorized Date: 11/08/2017
 Any document appearing in a paper form with a stamp of 'CONTROLLED' in blue color is a controlled document.

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Specimen ID: UL-BDLS J.FHE Zone: _____ Woreda: _____
 Site of specimen collection: Shobli Primary School (protected) Date specimen collected: 21/7/2017
 Time of collection: 10:00 Date specimen received: 21/7/2017
 Time received: 21:00 Sample collected and submitted by: Amare Abene

Nature of sample:-
 Pipe water
 Spring water
 River
 Tshel
 Chlorinated
 Unchlorinated
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RESULTS
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Figure 1: Water quality E-Coli test result of Tebabary school (Left) and Shobli school (Right)

Continuous Improvement: Regular joint site monitoring and reflection sessions facilitated ongoing learning and adaptation, ensuring the project's effectiveness and sustainability. These sessions also provide valuable feedback for monitoring and evaluating the effectiveness of the implemented works and ensuring quality assurance. This feedback can help identify areas for improvement and ensure that the program is adapted and implemented to meet the desired objectives of the projects. Regular joint field visits and feedback sessions are generally more effective for ensuring quality than relying solely on end-of-process quality control.



Figure 2: Photo shows team of experts and regional bureau delegate under supervision

Documentation of lessons: Implementing School Water, Sanitation, and Hygiene (WASH) projects involves various stakeholders, methodologies, and challenges. To enhance future project effectiveness and promote continuous improvement, it is vital to document lessons learned throughout the project lifecycle. Documentation serves as a valuable knowledge repository, enabling the transfer of insights and lessons learned from one project phase to another. Recording successful strategies, challenges faced, and solutions implemented can benefit future projects by transferring knowledge from the current implementation. This ensures a more efficient and effective execution of subsequent School WASH initiatives.

This document highlights capturing the lessons learned during the project implementation in the context of WASH in Schools for Everyone (WISE) in rural schools of Dera woreda pilot project.

3 Lessons From the Implementation Process

3.1 Enhancing Engagements: Strategies, and Practices

Involving stakeholders is crucial for planning and implementing WASH interventions. This fosters a sense of ownership and ensures sustainability by engaging parents, teachers, students, and the community.

Insights for school-based behavioral change and communication (BCC) materials, specifically for menstrual health and hygiene preparation, were captured through key informant interviews and focus group discussions with the school community, local government offices, religious leaders, and community representatives.

Community engagement is an essential component of effective behavioral change interventions. By involving community members in planning, implementing, and evaluating behavioral change programs, we can ensure that these programs are culturally feasible, sustainable, and have a greater impact on improving community health and well-being.

Establishing Regional Working Group: Additionally, the regional technical working group (RTWG) for the pilot WISE project conducted a monitoring visit and reflection session. The group's monitoring visits are scheduled quarterly with the following objectives:

- ✓ Observe the progress of infrastructure work to ensure continuous monitoring, evaluation, and follow-up
- ✓ Learn from the processes for future scale-up and create ownership
- ✓ Propose, provide, or draw strategic guidance and advocate for innovative approaches, technologies, and tools for school WASH interventions.

The establishment of RTWG has not only raised awareness among regional government bodies but also providing opportunities for them to monitor the progress of the project's implementation. This will also create opportunities for expansion into other geographic areas through government intervention.



Figure 3: Photo of Established Regional Working Group from Regional Bureaus and implementing partners for WISE in Rural Schools project

3.2 Organizational Cooperation and Partnership

The project aims to improve sanitation and water access in schools that already have powered water lifting technology. FH Ethiopia constructed the sanitation facilities at Tebabary and Shobli schools, while World Vision Ethiopia constructed them at Wanzaye school. Additionally, World Vision Ethiopia installed the water supply systems for all three schools.

To design the new drinking and handwashing stations, we obtained important information from World Vision Ethiopia, including well data such as well depth, dynamic water level, and well yield, as well as pump information such as pump position, type, and capacity. This data is essential for determining the optimal height of elevated reservoirs to provide unrestricted water access at all corners of each school compound.

3.3 The Handover Document Must Include all WASH Data

While collecting baseline data for the school's WASH infrastructure design, we discovered incomplete data at the Woreda Water and Energy office. This missing information could impede future expansion and maintenance activities. To address this gap, we obtained the missing data from World Vision Ethiopia.

To prevent similar issues in the future, we suggest including all raw data, design documents, and operation manuals, such as those for solar-powered pumps and other equipment, in the handover documents for completed WASH infrastructure projects. This will ensure that comprehensive information is readily available for future expansion and maintenance activities. Upon completion of the current WASH infrastructure, all relevant design documents will be included in the handover documentation.

3.4 Integration of WASH Infrastructure Construction

The construction of WASH infrastructure should consider the integration of water access and sanitation facilities. The placement of VIP latrines should be convenient and have access to water from existing sources. For example, the VIP latrines in Wanzaye and Shobli primary schools face a lack of water access due to their inconvenient locations. Meanwhile, at Tebabary Primary School, only the VIP latrines for girls have access to water, while the boys' VIP latrine lacks this essential service.

The reservoirs only address nearby drinking water points, neglecting the needs of the VIP latrines. Due to the inaccessibility of water within the school compound, including elevated areas, additional high-capacity storage facilities are under construction. However, if the storage had been built on a more suitable site with sufficient height, these additional structures would have been unnecessary. Adding pumping stations alone could then provide adequate water throughout the compound. This approach would eliminate unnecessary effort and expense.

3.5 Regular Water Quality Tests

It is important to note that the pre-water quality test results showed that out of the three schools, two schools had E-Coli positive water, which is not safe to drink without chlorination. Ensuring access to safe drinking water is crucial for everyone, but it is especially important for children in rural schools. These schools often rely on groundwater sources, which can be vulnerable to contamination from factors such as agricultural runoff, inadequate sanitation facilities, and naturally occurring minerals. Therefore, regular water quality testing is vital to protecting the health of students and staff.

4 Summary of the lessons learned

During the implementation of the WASH in Schools for Everyone project in rural schools includes key takeaways on community engagement, organizational cooperation, and infrastructure design. Emphasizing community involvement, including parents, teachers, students, Woreda offices, and local organizations, is crucial to ensure ownership, cultural relevance, and sustainability of infrastructural and behavioral change programs. The engagement process includes participatory methods such as Key Informant Interviews (KII) and Focus Group Discussions (FGD).

Organizational cooperation and partnership are crucial for the success of WASH projects. Collaborative efforts between FH Ethiopia and World Vision Ethiopia are highlighted, with each organization contributing to constructing sanitation facilities and water supply systems, as well as sharing crucial data for infrastructure design. To facilitate future expansion and maintenance activities, it is important to include all WASH data in handover documents.

The existing infrastructure integration poses challenges, especially the lack of consideration for the seamless integration of water access and sanitation facilities. The placement of VIP latrines is inconvenient, and coupled with inadequate water access, it necessitates the construction of additional high-capacity storage facilities. The report suggests adopting a more integrated approach to infrastructure construction to reduce unnecessary efforts and expenses.

In general, the document emphasizes the importance of community engagement, organizational collaboration, and comprehensive documentation for the success, sustainability, and effective management of School WASH projects.

Acknowledgements

We acknowledge the Cornald N. Hilton Foundation for funding the WASH in Schools for Everyone program in rural schools. We thank Splash, MWA, and FH Ethiopia for their partnerships in implementing the project in the targeted area.