

# Ethiopia Country-Wide Case Study on the Collaboration between Neglected Tropical Disease (NTD) and Water, Sanitation, and Hygiene (WASH) Sectors



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## INTRODUCTION

Neglected tropical diseases (NTD) are a group of infectious diseases that disproportionately affect the world's poorest communities—they affect one billion of the poorest people globally, especially women and children, who are most vulnerable to contracting and suffering from NTDs.<sup>1</sup> Victims of these diseases suffer from debilitating symptoms such as chronic pain and long-term disabilities, and they also experience social stigmatization and early death. These diseases also act as an obstacle to productivity, with a direct impact on school attendance, academic performance, and future success and earnings.<sup>2</sup>

There have been many different kinds of interventions used to address prevalence of NTDs globally. One of the most prevalent interventions is preventative chemotherapy which relies on mass drug administration and targeted treatments.<sup>3</sup> However, preventative chemotherapy is not a sustainable solution on its own because it does not address the pathogens in the environment. Poor access to basic water, sanitation, and hygiene (WASH) infrastructure results in unhealthy and contaminated environments that heighten vulnerability and exposure to infection. Research has shown that sanitation and water interventions lead to a significant reduction in *Schistosoma* infections,<sup>4</sup> a 33% reduction of *C. trachomatis* infections,<sup>5</sup> and 33-70% less soil-helminth infections.<sup>6</sup> Ultimately, the construction of adequate WASH infrastructure, coupled with intense health education, are crucial elements for the prevention and control of NTDs. The cross-sectorial nature of the challenges associated with neglected tropical diseases is indicative of the need to increase the general awareness of the benefits of NTD and WASH collaboration, introducing monitoring tools and frameworks, strengthening WASH interventions for NTDs, and including all levels of the health system in the planning and delivery of interventions. The collaboration between WASH and NTD sectors is vital for the sustainable sanitation and global disease control.

## BACKGROUND

As the second largest country in sub-Saharan Africa with a population of 105 million, of which 79% live in rural areas,<sup>7</sup> the Federal Democratic Republic of Ethiopia experiences high burdens of NTD infection

and prevalence. Ethiopia has the highest prevalence of active trachoma in the world, with 44% of the global burden occurring in the country<sup>8</sup> and 657 woredas (districts) that are considered endemic. Other prevalent NTDs include onchocerciasis, with 17 million at risk of infection, schistosomiasis with 38.3 million at risk, soil-transmitted helminthes (STH) with 81 million at risk, and lymphatic filariasis with millions at risk of infection.<sup>9</sup> In the past few years there has been a more concerted effort to strengthen the coordination between WASH and NTD groups by both the federal government and NGOs. Therefore, Ethiopia serves as a great starting point to evaluate the existing partnerships between the WASH and NTD sectors, their efficacy in national NTD eradication efforts, and any challenges that need to be addressed in the future.

## WASH AND NTD SECTORS

The Federal Government of Ethiopia has explicitly outlined and promoted the right to a clean and healthy environment and the protection of public health in the constitution<sup>10</sup> and has further emphasized the right to health care and a healthy environment in the National Health Policy. As such, there have been many federal policies and programs implemented to address needs for water, sanitation and hygiene and NTD elimination.

A major WASH program implemented by the Federal Ministry of Health (FMoH) is the Community-Led Total Sanitation and Hygiene (CLTSH) program which acts as the principal approach to provide adequate water and sanitation to rural areas. The FMoH officially adopted CLTSH approach and endorsed it with the National CLTSH Implementation Guideline, Training Manual, and Verification Protocol in 2011.<sup>11</sup> Through the CLTSH approach, 4,912 kebeles (village associations) have been declared open defecation free, covering a total population of 24,560,000 people.<sup>12</sup> Another major government program, One WASH National Program, brings together the four sectors- Water Resources, Health, Education, and Finance, in order to modernize the way water and sanitation services are delivered. The program established inter-sectoral coordination mechanisms in the different government levels, and creates infrastructure in health centers and schools in target communities.

In regards to federal efforts to mitigate NTDs, the FMoH has released a National Masterplan for Neglected Tropical Diseases in 2013 and an updated edition in 2015.<sup>13</sup> The overall vision and goal of the program is to see an NTD-free nation and support the right to health and well-being. This is being done through an integrated NTD strategy that seeks to strengthen government ownership, improve upon existing national NTD programs, increase community empowerment, and introduce new monitoring and evaluation tools.

## WASH-NTD COORDINATION

Ethiopia is composed of nine regional states and two city administration councils that are sub-divided into zones, then divided further into woredas (districts) and kebeles (village associations). Each level of government maintains their own form of authority, with an elected administrative council governing at the woreda level and community leaders and the kebele administration governing kebeles. It is crucial that all levels of government are engaged in NTD and WASH efforts to promote lasting and sustainable change. Water, sanitation, hygiene and NTD issues are not limited by borders. As such, collaboration at multiple government levels is needed to complement WASH and NTD coordination.

## GOVERNMENT EFFORTS

Neglected tropical diseases are a public health crisis that the Ethiopian government has invested in heavily the past few years. Several different masterplans were established as a framework for disease control in Ethiopia. The first one, implemented in 2013, focused primarily on providing access to preventative therapy in the country. This focus then shifted to a more holistic

approach in early 2016 through the establishment of a new, more ambitious 5-year masterplan. This masterplan came to fruition through a series of discussions that took place in 2015 with a large cohort of actors invested in NTD elimination and control in Ethiopia.

## FEDERAL LEVEL

Recently, the federal government has introduced a WASH coordination framework to ease collaboration between WASH and health partners. The program, One WASH National Program (OWNP), was launched in late 2013 and brought together water, health, finance, and education ministries along with private stakeholders to address water/sanitation and subsequent health issues by 2020.<sup>14</sup> The program brought all these actors together and pooled resources and knowledge to improve rural sanitation by providing WASH infrastructure through the CLTSH framework. The overall goal of this program is to align WASH sector plans so there can be just one plan and system implemented nationwide to ensure equity and harmonization in application.

Traditionally, WASH and NTD sectors in Ethiopia have been working independently. As the Ethiopian government began to get more invested in the national NTD control efforts, they also began to direct more attention to facilitating WASH-NTD collaboration. In 2017, the FMoH sponsored a retreat bringing together WASH and NTD professionals from the federal and regional levels and from partner NGOs. The three-day retreat, organized by NALA focused on better understanding behavioral change as well as understanding mechanisms and opportunities for WASH and NTD collaboration. This was a significant first step

STRATEGIC OBJECTIVES	TOOLS/ACTIONS
<b>SO1:</b> Increase awareness about the <b>co-benefits</b> of joint WASH and NTD action by sharing experiences and evidence from improved delivery.	<ul style="list-style-type: none"> <li>• <b>Identify synergies</b> across NTDs, and between NTDs and WASH</li> <li>• <b>Strengthen platforms</b> for sharing knowledge and increasing collaboration</li> <li>• <b>Improve awareness</b> about NTDs and opportunities provided by joint interventions among professional communities within and beyond WASH and NTDs</li> </ul>
<b>SO2:</b> Use WASH and NTD <b>monitoring</b> to highlight inequalities, target investment, and track progress.	<ul style="list-style-type: none"> <li>• Formulate cross-cutting <b>program M&amp;E systems</b> including <b>standardized and comparable success indicators</b></li> <li>• Collect <b>higher quality and disaggregated data</b></li> </ul>
<b>SO3:</b> Strengthen <b>evidence</b> on how to deliver effective WASH interventions for NTDs and embed the findings in guidance and practice.	<ul style="list-style-type: none"> <li>• Define an agenda for applied practical operational research on effective implementation</li> <li>• Embed guidance on joint WASH-NTD coordination, and disseminating standards and guidelines into policy and practice</li> </ul>
<b>SO4:</b> Plan, deliver and evaluate programs with <b>mutual inputs</b> from WASH, health and NTD <b>stakeholders at all levels.</b>	<ul style="list-style-type: none"> <li>• Support the development and strengthening of governance and institutional arrangements that enable collaboration</li> <li>• Joint <b>use of existing datasets and reports</b> between stakeholders and across sectors to track progress and inform decision-making at sub national, national and global levels</li> </ul>

Table 1: World Health Organization Objectives for WASH-NTD Coordination (2015)

towards promoting WASH-NTD coordination in Ethiopia and resulted in the establishment of a coordination framework on the federal level and in key regions.

## REGIONAL LEVEL

When the concept of collaborative interventions and exchange was first introduced, there were limited platforms and means to bring these two sectors together on a regular or organized basis to work jointly. The situation has changed in late 2017 after the retreat with the introduction of platforms, positions, and technical working groups to bring together the two sectors.<sup>15</sup> There are several governmental positions at the federal and regional levels to facilitate and ease communication between WASH and NTD groups. This includes a WASH and behavioral change advisor within the NTD team at the FMOH as well as four regional WASH/NTD focal positions within the regional health bureaus to assist with regional- and district-level task forces.<sup>16</sup>

Beyond individual positions and assignments, there is also a platform at the federal level to bring together WASH and NTD actors, meeting for the first time in December of 2017, along with several platforms at the regional level in Tigray, Oromia, SNNPR, and Amhara. Despite a clear governmental hierarchy in Ethiopia, with the federal government more involved with policy making and advocacy and the regional governments more involved with practical implementation, there was initially a slight disparity in that the regional platforms opened and were active before the federal platforms.<sup>17</sup> Still in the early stages, these platforms could prove to be a great resource to effectively pool and sustainably use existing resources, collaborate and plan interventions jointly, and eventually reach better results.

Ethiopia's Health Extension Program (HEP) serves as another resource to promote WASH and NTD efforts through health education in rural areas. The program, which includes more than 38,000 health extension workers, 16,000 health posts, and 3,500 health centers, provides services under categories such as hygiene and environmental sanitation, disease prevention and control, and health education and communication. The health extension workers (HEW) work with primarily women volunteers in the Health Development Army (HDA) to promote and provide hygiene education and WASH infrastructure (i.e. latrines) at the community and household level. The HEP is especially relied on in areas with limited resources and have been credited for major gains in health outcomes nationally.

## NGOs

There have been many instances in which non-governmental organizations have taken charge in the efforts to strengthen WASH-NTD coordination in Ethiopia through relevant projects and interventions. Due to the newer nature of the collaboration, each program brings a unique perspective. These projects

can ultimately serve as an example from which to learn and expand upon for the future coordination efforts.

## CARE

CARE Ethiopia is a multi-sector NGO that has long-standing WASH programs, most notably in South Gondar, where CARE has worked in collaboration with the zonal government and respective woreda governments for more than 15 years. In 2015, CARE sought to test ways to effectively integrate and scale NTD prevention through its existing WASH programs with the South Gondar government, and use WASH platforms as a way to scale WASH/NTD integration and planning. The organization implemented a pilot project, 'Testing Integrated WASH Implementation Models for NTD Prevention,' with financial support from Johnson & Johnson Foundation from February 2015 to April 2018 in the Estie, Farta, Andabet and Dera woredas of the South Gondar Zone in the Amhara region in Ethiopia. This project involved several partners, including the Ministries of Water and Energy; Health; Women and Children's Affairs; Education; Agriculture; Youth and Sport; and Children Without Worms; the Carter Center; and private sector supporting sanitation marketing activities. Project planning, monitoring, and evaluation are carried out jointly with all partners. Overall, the program was designed to enhance access to water, sanitation and hygiene at community levels, and facilitate improvement of specific hygiene and sanitation behaviors that reduce the risk of STH, Schistosomiasis, and Trachoma infections. This is done through the **integration of NTD elements such as hygiene and sanitation promotion and positive behavior change messages and trainings for Health Extension Workers, Health Development Army, Agriculture Development Agents, School WASH Clubs, and religious leaders/fathers into their existing Community and Institutional WASH programming (providing safe water supplies, latrines, and hygiene promotion)**. One of CARE's additional objectives in this project was to increase government capacity to comprehensively address the control and prevention of NTDs. To fulfill this objective, they worked to strengthen the WASH and NTD taskforces at the regional and zonal levels and build the technical and planning capacities of government experts and community workers through providing trainings.<sup>18</sup> Learning and experiences were disseminated and shared to inform government and WASH and NTD stakeholders at District, Zone, National and Global levels through learning forums, workshops, review meetings and reports, journals, etc. All of this is especially unique and significant when recognizing that CARE is one of very few WASH actors engaged with and leading the WASH-NTD collaborative efforts. CARE Ethiopia has extensive WASH programming in collaboration with zone governments throughout the Amhara and Afar regions, and have committed to adding NTD elements to their WASH programs after recognizing the low cost and significant public health implications.

## EMORY UNIVERSITY

The Andilaye project (Amharic for “togetherness”) is led by Emory University in the West Gojjam and South Gondar zones of the Amhara region. This project focuses on **promoting positive behavioral change in communities through community mobilization and commitment events, community conversations, and personalized counseling with caregivers to supplement existing governmental WASH efforts.**<sup>19</sup>

What differentiates the Andilaye project is a heavier emphasis on research—the intervention itself is a cluster randomized control trial that was developed based on intensive formative research. This background research for the project was conducted from September 2016 to January 2017 to understand behavioral change motives and was collected through a series of group discussions, interviews, and community observations. Behavior was categorized into three themes—sanitation, personal hygiene, and household environmental sanitation. Information gathered from this preliminary research was used to develop and improve upon their intervention strategy, which was then implemented in September of 2017. The project was designed as a cluster-randomized control trial with 50 kebeles, half of which received the standard CLTSH programming while the other half received the Andilaye intervention strategy on top of CLTSH. The Amhara Regional Health Bureau serves as an implementing partner, providing WASH and CLTSH programming in the trial woredas (as the project itself is not involved in any WASH infrastructure construction). The main focus of this intervention is to bring improved WASH and NTD-preventive behavioral promotion together by focusing on positive, community-oriented motivators of behavioral change. This is all done through capacitating Health Development Army leaders and Health Extension Workers and organizing local events and activities, all to create community mobilization that promotes healthy messages at the community, group, and household levels.<sup>20</sup>

## NALA FOUNDATION

NALA has been a long-time partner in the efforts to promote WASH and NTD collaboration in Ethiopia, with community programs in the regions of SSNPR, Tigray and Amhara starting from 2008. NALA is one for few organizations that does both NTD and WASH programming themselves. Their programs **integrate small scale WASH projects in schools with NTD prevention trainings for local volunteers who work alongside HEW, HDA, school staff, and students to promote healthy behaviors.** Since 2016, NALA has also provided technical assistance to trachoma NGOs and to the government at the federal and regional level, with staff in positions at the federal and several regional health bureaus (Oromia, Amhara, SSNPR, and Tigray) to better facilitate coordination. NALA, in partnership with other NGOs, the World Health Organization, and the Federal Ministry of Health has been developing a

national WASH-NTD coordination toolkit. This toolkit will be a more localized version of a global toolkit that is currently in development and will serve as a concrete resource to help with joint planning and supervision between WASH and NTD actors. This will include specific steps, guidelines, and suggestions on the various stages of joint-work and is designed more so for use at the kebele and woreda levels as they are the ones actually working at the field.<sup>21,22</sup>

## FRED HOLLOWES FOUNDATION

In partnership with the Oromia Regional Health Bureau, The Fred Hollowes Foundation has developed a region wide approach to F and E programming that seeks to find a balance between the importance of contextualized, locally relevant solutions and the need to deliver to scale an effective region wide F and E program. The Foundation has partnered with Caritas, Sightsavers and Unilever, and SNV to implement this strategy across Oromia. The partnership with Caritas (a traditional WASH organization) seeks to improve the livelihoods of people in East Hararghe and in particular improve sanitation and hygiene practices in primary schools. The project makes use of the well tested CHAST approach to strengthen sanitation of hygiene practices amongst young children, but adapts this to include trachoma content. Local primary school teachers and Health Extension Workers are engaged to promote positive health behaviors at the community and school levels. Schools not yet equipped with adequate water supply and sanitation facilities are equipped with such facilities. The FHF/Caritas CHAST project is **distinctive in the partnership arrangement, whereby Caritas bring their significant WASH experience and hardware investments while FHF brings its strong local partnerships, and trachoma experience and expertise.** The organizations have come together to plan the project, to develop a MEL framework, and to implement an impact evaluation.

## ORDA

Most common of WASH-NTD collaborative projects are those in which **NTD actors work with the regional health bureaus to provide NTD and health education support to existing governmental WASH programs.** Organization for Rehabilitation and Development in Amhara (ORDA)'s intervention in Amhara is one of such projects. With Christian Blind Mission (CBM) support, ORDA implemented a pilot in 2010 in just two districts that has now expanded to cover thirteen districts in the Waghemra, North and South Wollo Zones in Amhara. Implementing partners include the Amhara Regional Health Bureau and the Ministries of Education; Water and Energy; and the Bureau of Finance and Economic Development (BoFED). Planning was done jointly, with a signed project document with these four government ministries, and site selection done in coordination with water offices at the woreda level. ORDA also collaborates with CARE in three of the thirteen districts. Like many of the other projects,

ORGANIZATION	KEY PARTNERS	BEST PRACTICES/ELEMENTS OF WASH-NTD COORDINATION
CARE	Ministries of Health; Water and Energy; Women and Children's Affairs; Education, Agriculture, Youth and Sport; Children Without Worms; Carter Center and Private Sector (Sanitation Marketing Groups)	Integration of NTD education and trainings, and an expanded hygiene approach to address NTD prevention, into their existing WASH programming. Also strengthened WASH-NTD taskforces at the regional and zonal levels.
EMORY UNIVERSITY	Amhara Regional Health Bureau	Conducted thorough formative research that detailed community mobilization and commitment events, community conversations, and personalized counseling with caregivers to supplement governmental WASH efforts.
NALA	Federal Ministry Of Health; Sightsavers; OSSHD; Amhara, Oromia, SNNPR, & Tigray Regional Health Bureaus; FHF; Carter Center; Orbis International and Light for the World	Work on full spectrum of coordination from community level, to federal level. Designed inter-sectoral coordination for district level and support for regional and federal levels.
FHF	Sightsavers, Unilever, SNV, Caritas, Oromia Regional Health Bureau	Partnership with WASH actor (Caritas) that brings WASH experience and hardware investments while FHF brings local partnerships, and trachoma expertise
ORDA	Amhara Regional Health Bureau, Ministry of Education, Ministry of Water and Energy, Bureau of Finance and Economic Development	Local WASH actor. Incorporating NTD and health education support to existing federal WASH programs. Adoption of SAFE strategy to decrease NTD prevalence.

Table 2: NGOs involved in Ethiopia with WASH-NTD integrated interventions

ORDA works to train Health Extension Workers and selected school staff and students to create awareness in communities on the SAFE strategy (Surgery, Antibiotics, Facial Cleanliness, and Environmental Improvement) to decrease NTD prevalence. The WASH construction is done in collaboration with the Ministry of Water and Energy with a prioritization of building infrastructure in schools. Evaluative tools are focused around monitoring trachoma prevalence, with evaluations done at the baseline, mid-term and end of the project.<sup>23</sup>

Ultimately, each actor and intervention brings a unique aspect to the table in regards to WASH and NTD coordination from which we can learn and expand upon—whether it be the heavy research focus from the Andilaye project, the holistic model at NALA, or the integrative collaboration and communication efforts at ORDA, FHF, and CARE. The implementation and documentation of such collaborative projects are crucial for continued success in the efforts to promote coordination between WASH and NTD sectors.

## CRUCIAL FACTORS

There are several crucial factors that need to be addressed in the efforts to facilitate successful collaboration between WASH and NTD sectors.

### CRUCIAL FACTOR #1: COMMUNICATION

The first crucial factor is the mechanism or means in which institutions and organizations can coordinate, especially between WASH and NTD sectors. Regular communication and engagement are needed to help actors share knowledge and resources, ease the joint planning and implementation efforts, and create an overall sense of shared purpose. Using the existing task teams, working groups, and platforms has the

advantage of sustainability and reach to relevant stakeholders, but might compete with other priorities. In Ethiopia, the federal NTD section first tried to integrate within existing WASH forums, and then established. Some partners have seen a difficulty in persuading organizations to participate in a joint WASH-NTD working group when they may already have membership in either the WASH or NTD working group.<sup>24</sup> This can be resolved through increased federal and regional efforts to either incentivize or require that actors who are part of either the WASH or NTD working groups must also participate in the joint WASH-NTD working group. Similarly, there could be more efforts made to include other actors in relevant symposiums and events. Just recently, the FMOH held the Second Annual NTD Symposium in Hawassa in July 2018. Unfortunately, there were only a few WASH actors in attendance or speakers, which presented a missed opportunity to further facilitate communication between the sectors.

### CRUCIAL FACTOR #2: ESTABLISHED FRAMEWORK

Once these platforms and partners start meeting regularly, collaboration on projects can occur much more easily. This plays into another crucial factor for the success of these programs—it is not enough to simply have two partners working on a project only to eventually work individually in the future stages. For efficiency, cost-savings, and harmonization purposes, it is important to create frameworks from which organizations and partners can work jointly in the data collection and analysis stages and get better, more cohesive results. This can occur organically, many of the existing and past collaborative projects include all actors in the planning, monitoring, and evaluative aspects of their interventions. However, if we could start requiring

that WASH and NTD projects have monitoring tools and indicators relevant to the other sector, we could speed up and incentivize collaboration and joint work. For instance, if the FMoH began to require that WASH projects start to take into account NTD prevalence in their communities as a monitoring tool, then WASH actors would be encouraged to start introducing some health elements into their interventions and work with NTD actors. Joint-planning, monitoring, and evaluations lead to better results and outcomes, which in turn would give these joint projects and initiatives more attention and further promote the benefits of collaboration.

### **CRUCIAL FACTOR #3: STRONG LEADERSHIP**

The final factor that is crucial for building intersectional collaboration is prominent leadership, especially in the government agencies. This is especially important at earlier stages to gain support and involvement from the communities themselves, the stakeholders, and any external actors. Prominent leadership is crucial to encourage or even require good practices, including all those mentioned previously (i.e. joint working group engagement, joint monitoring and indicators). We cannot expect NGOs and different sectors to work collaboratively if individual ministries in the government do not do so as well.

Successful WASH-NTD interventions and projects take all these factors into account. For instance, every WASH-NTD program previously mentioned engages with their stakeholders and implementing partners during, at minimum, the planning stages. Even better is when projects involve their partners in all aspects, including implementation, monitoring, and evaluation. In addition, most projects work with the government at some level, whether it be with the Federal Ministry of Health; Ministry of Water, Irrigation and Energy; Ministry of Education; or the Regional Health Bureaus. This communication between partners and governments is crucial for the success of these WASH-NTD interventions. Ideally, organizations would be able to communicate with all levels of government as each level is responsible for a different aspect of the collaboration—the higher levels are integral for large-scale implementation and support while local levels are crucial for engaging with the actual communities in the field. The success of these projects are heavily reliant on communication, between the government, organizations, and civil society. As such, successful projects will have means of facilitating such communication, for example through participation in regional and district level WASH-NTD task forces.

## **CHALLENGES & FUTURE IMPLEMENTATION**

Understanding the challenges associated with WASH and NTD integration is the first step in creating more effective programs and mitigating these barriers to success.

### **CHALLENGE #1: DIFFERING PRIORITIES**

One of the main challenges in the efforts to facilitate WASH and NTD coordination is simply a difference in priorities between the two sectors. NTD interventions typically focus their programs in areas with high disease prevalence and incidence, which naturally coincides with extremely impoverished communities. WASH interventions on the other hand also prioritize assisting marginalized groups but still have to consider areas that can easily be accessed and where infrastructure can easily be built. This results in many WASH interventions being focused on peri-urban areas that are not so difficult to reach and as such may not be as endemic for NTDs. These differences make joint prioritization and joint planning difficult.

### **CHALLENGE #2: DIFFERENCES IN FUNDING**

Another major challenge in establishing WASH-NTD collaborative efforts in Ethiopia lies in cost. NTD sectors clearly need to integrate water and sanitation into their programs but are often unable to do so because of the high costs of WASH infrastructure. On the other hand, WASH sectors may not add NTD elements into their programming as they do not necessarily see as many benefits. However, CARE, one of the few WASH NGOs that participates the WASH-NTD collaboration, was able to create a cost analysis for their program in South Gondar zone. Based on their calculations, the NTD portion of their project only accounts for 7-9 percent of their total program costs, and required only a 8-10 percent increase in budget to their existing WASH platform.<sup>25</sup> This is significant as 10 percent represents a very minimal additional cost to support sustainable change in public health. Adding NTD programming into existing WASH projects and objectives is both cheap to fund and extremely beneficial for strengthening the hygiene and sanitation approaches to WASH.

### **CHALLENGE #3: PERCEIVED BENEFITS**

Similarly, another rising challenge is that this collaboration between NTD and WASH sectors is slightly skewed in regards to contribution and benefits. There are clear benefits for NTD groups working with WASH sectors, as it is well-known that NTD actors need WASH infrastructure and collaboration to be successful. However, there perhaps are not as many clear benefits for WASH actors in this partnership which could undermine the collaboration itself. For WASH groups, the main benefit to working alongside NTD actors would likely be having a means to demonstrate the success of their interventions and really promote the work that they do. Because of this, NTD groups need to have evidence that the work of WASH partners really impacts and helps with NTD and disease eradication efforts.

### **CHALLENGE #4: LACK OF SUPPORTING EVIDENCE & RESEARCH**

The challenge regarding the perceived benefits for each sector lies in a lack of information. This unfortunately highlights another huge challenge in NTD and WASH

collaboration: a dearth of research and evidence supporting the efficacy of such collaboration. This plays into a repetitive cycle in that because these collaborations are relatively new in disease control efforts, there is little research out there supporting its effectiveness which in turn acts as a barrier for further collaborative efforts that could act as future evidence.

Ultimately, differences in priorities and skewed perceptions have been the main barrier preventing WASH-NTD coordination from being truly realized in a larger scale. Many of the ongoing and past projects that integrate WASH-NTD coordination are done through NTD NGOs that work alongside federal agencies for their WASH programming. Convincing WASH sectors of the benefits to integrating NTDs, both fiscally and socially, is one of the first major steps to achieving WASH-NTD collaboration that will sustainably decrease NTD prevalence and infection in Ethiopia.

## CONCLUSION

In order to successfully achieve sustainable disease control nationally, there needs to be an increased investment in intersectoral collaboration. There have already been many initiatives to create global partnerships between nations, international organizations, corporations and pharmaceutical companies, but the key for the future is facilitating similar means of collaboration between health sectors, especially that of the NTD and WASH sectors. The Federal Government of Ethiopia has already made tremendous strides in realizing this need for collaborative action. The introduction of several platforms in which actors from both WASH and NTD sectors can share knowledge and technical skills and work jointly is a great starting point from which organizations can collaborate. The underlying reasoning for the successes Ethiopia has seen thus far in supporting these partnerships lie simply in the fact that the government acknowledges the burden of NTDs and is convinced that they can make impactful change.

## CITATIONS

<sup>1</sup> "Integrating Neglected Tropical Diseases into Global Health and Development" World Health Organization. 2017. [apps.who.int/iris/bitstream/handle/10665/255011/9789241565448-eng](https://apps.who.int/iris/bitstream/handle/10665/255011/9789241565448-eng).

<sup>2</sup> Hotez PJ, Fenwick A, Savioli L, Molyneuz DH. "Rescuing the bottom billion through control of neglected tropical diseases" *The Lancet*, 2 May 2009. [www.who.int/neglected\\_diseases/Bottom\\_billion\\_ntd\\_control.pdf](http://www.who.int/neglected_diseases/Bottom_billion_ntd_control.pdf).

<sup>3</sup> Hotez PJ, Molyneuz DH, Fenwick A, Kumaresan J. "Control of Neglected Tropical Diseases" *The New England Journal of Medicine* 357:1018-1027, 6 September 2007. [www.nejm.org/doi/full/10.1056/nejmra064142](http://www.nejm.org/doi/full/10.1056/nejmra064142).

<sup>4</sup> Grimes JET, Croll D, Harrison WE, Utzinger J, Freeman MC, Templeton MR. "The Relationship between Water, Sanitation and Schistosomiasis: A Systematic Review and Meta-analysis" *PLOS Neglected Tropical Diseases*, 4 December 2014. [journals.plos.org/plosntds/article?id=10.1371/journal.pntd.0003296](https://journals.plos.org/plosntds/article?id=10.1371/journal.pntd.0003296).

<sup>5</sup> Stocks, ME, Ogden S, Haddad D, Addiss DG, McGuire C, Freeman MC. "Effect of Water, Sanitation, and Hygiene on the Prevention of Trachoma: A Systematic Review and Meta-Analysis" *PLOS Medicine*, 25 February 2014. [journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1001605](https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1001605).

<sup>6</sup> Strunz EC, Addiss DG, Stocks ME, Ogden S, Utzinger J, Freeman MC. "Water, sanitation, hygiene, and soil-transmitted helminth infection: a systematic review and meta-analysis" *PLOS Medicine*, 25 March 2014. [journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1001620](https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1001620).

<sup>7</sup> "The World Factbook: Ethiopia" Central Intelligence Agency, 13 June 2018. [www.cia.gov/library/publications/the-world-factbook/geos/et.html](http://www.cia.gov/library/publications/the-world-factbook/geos/et.html)

<sup>8</sup> WHO Weekly Epidemiological Record, 29 June 2018. See: <http://www.who.int/wer/en/>

<sup>9</sup> "Second Edition of National Neglected Tropical Diseases Master Plan" Federal Democratic Republic of Ethiopia Ministry of Health, 2015

<sup>10</sup> Constitution of the Federal Democratic Republic of Ethiopia, 21 August 1995, available at: [www.refworld.org/docid/3ae6b5a84.html](http://www.refworld.org/docid/3ae6b5a84.html)

<sup>11</sup> "Outcome Evaluation of CLTSH Program in Ethiopia from 2012-2015" BDS-Center for Development Research, April 2016. [www.unicef.org/evaldatabase/files/Final\\_Report\\_of\\_CLTSH\\_Outcome\\_Evaluation-Designed\\_Ethiopia\\_2016-012.pdf](http://www.unicef.org/evaldatabase/files/Final_Report_of_CLTSH_Outcome_Evaluation-Designed_Ethiopia_2016-012.pdf)

<sup>12</sup> "Community-Led Total Sanitation: Ethiopia" CLTS Knowledge Hub. [www.communityledtotalsanitation.org/country/ethiopia](http://www.communityledtotalsanitation.org/country/ethiopia)

<sup>13</sup> See: "Second Edition of National Neglected Tropical Diseases Master Plan" Federal Democratic Republic of Ethiopia Ministry of Health, 2015

<sup>14</sup> See: "One WASH- the implementation of Ethiopia's national programme" [www.trachomacoalition.org/sites/all/themes/report-2016/PDF/Ethiopia.pdf](http://www.trachomacoalition.org/sites/all/themes/report-2016/PDF/Ethiopia.pdf)

<sup>15</sup> Negussa, Nebiyu, NTD Team Leader at the Federal Ministry of Health in Ethiopia (27 June 2018). Phone interview.

<sup>16</sup> Wohlgemuth, Leah, NTD Regional Technical Advisor at Sightsavers (9 May 2018). Phone interview.

<sup>17</sup> Rennert, Liat, NALA Program Manager in Ethiopia (through NALA Foundation/JDC) (25 April 2018). Phone interview.

<sup>18</sup> Tiruneh, Gardachew, Learning, Design & Measurement Manager at CARE Ethiopia (7 August 2018). Phone interview.

<sup>19</sup> See: [www.freemanresearchgroup.org/andilaye/](http://www.freemanresearchgroup.org/andilaye/)

<sup>20</sup> Tesfaye, Yihenuw Alemu, Graduate Research Fellow for the Andilaye Project, Emory University (12 July 2018). In-person interview.

<sup>21</sup> Rennert, Liat, NALA Program Manager in Ethiopia (through NALA Foundation/JDC) (25 April 2018). Phone interview.

<sup>22</sup> Wohlgemuth, Leah, NTD Regional Technical Advisor at Sightsavers (9 May 2018). Phone interview.

<sup>23</sup> Shumetie, Ghion, Amhara Trachoma Control Program Coordinator at ORDA (26 July 2018). Phone interview.

<sup>24</sup> Mulat Dessie, Asmro, Regional WASH-NTD Coordination and Disease Prevention Officer in Amhara Regional Health Bureau (through NALA Foundation) (11 July 2018). In-person interview.

<sup>25</sup> "Adding NTD prevention to an existing WASH program: a cost analysis of CARE's I-WASH NTDs Program in South Gondar Zone, Ethiopia" CARE Ethiopia.

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