

Safe Water Scoping

DRAFT PROPOSAL

Overview/Rationale:

1. Limited access to safe water is one of the biggest public health problems in the world, affecting 2.2B people.
2. Yet it is a neglected space, which hasn't received the same investment or innovation focus as most areas within global health (partly due to the siloing of WASH).
3. As we learn more about the space, we are seeing a lot of promising areas to scope- from ways to improve the CE of current interventions to new technologies and delivery models that can reach different market segments.
4. We believe that a grant to support this scoping will both open up significant new funding opportunities and improve the CE and scale of our current SW interventions.

Areas for Scoping

Note: this list is dynamic and will evolve as we learn more

1. Technical Assistance to India:

- a. The Opportunity:
 - i. India presents a massive opportunity to scale SW interventions through technical assistance. We are getting good traction on influencing large-scale government scale-up.
 - ii. The Indian govt is allocating \$43B to Jal Jeevan Mission (Water Mission) over 5 years and this is a priority of the Prime Minister. As of 2020-21, 99% of this funding was dedicated to water access; only 1% to water quality.
 1. Gol recognizes the big gap in water safety due to the financing gaps that exist to address this challenge.
 - iii. Michael Kremer/DIL presented to JJM leaders on the evidence and has opened the door to senior levels of government
 1. Gol asked Kremer, who asked us, to lead on the identification of safe water solutions.
 2. Gol can put significant resources behind this, assuming we can identify a technology and model that works→ huge leverage potential
 3. Time-sensitivity to execute in light of PM election cycle
- b. The work:

- i. We've completed a rapid 10-state infrastructure assessment and a product/supplier landscaping.
 - ii. We're planning a 3-state operational pilot, pending government approval, to identify optimal solutions and demonstrate feasibility.
 - iii. Kanika and Michael are traveling to India in January to present the pilot design to JJM leadership.
 - iv. If successful, we'd then work with state govts to incorporate into their policies, planning and budgets starting in late '23.
 - v. We think this could look similar to DTW- supporting a set of states and leveraging govt funding- and this will draw heavily on the deworming approach.
- c. What success looks like:
 - i. India scale up:
 1. Home-run outcome: reaching the scale of DTW, eg 10-11 of the most populous states; 450-500M people reached.
 2. Highly successful outcome (projected as more likely): reaching ~250M across 5-6 states.
 3. High CE impact, at massive scale, given India's high density and the potential for deploying large-scale systems that reach more households per device.
 - a. Note: our very rough BOTECEA exceeds 10x in all states under consideration for the pilot. This does not incorporate leverage or work on larger systems, which could have very substantial CEA upside.
 4. Leverage significant GoI funds, given JJM's expansive resources (like DTW, which GoI now primarily funds).
 5. *Note: this grant request focuses on the scoping and piloting phase; scale up work, akin to DTW, would require a separate grant.*
 - ii. Learnings:
 1. Technologies/approaches appropriate for a) larger communities than we currently target with DSW/ILC and b) multi-village water systems— both of which could be more CE due to higher households served per device.
 2. Technical assistance approaches to scaling safe water: How to incorporate water safety into govt planning and budgeting, which can be applied in other countries.
 3. How to efficiently determine the right mix of technologies across diverse contexts.

2. Identifying Optimal Technologies and Approaches

- a. There are many SW technologies and delivery models, which may be CE in different contexts.
 - i. In many health interventions, there's a clearly dominant technology and distribution channel (e.g. for maternal syphilis, it's dual testing and penicillin injection at ANC clinics). In safe water, there's more room to innovate and uncover higher CE, more operationally efficient technologies and delivery models. Chlorine can be delivered via multiple technologies with multiple distribution channels- DSW and ILC are just two of many.
- b. We seek to systematically assess these through research, tech assessments and infrastructure assessments, and then pilot the most promising ones. This may include things like (but not limited to):
 - i. Delivery models:
 - 1. Vouchers
 - 2. Cost-recovery/fee for service models
 - 3. Supporting utilities to improve existing treatment systems (which may open up opportunities in urban areas as well)
 - ii. Technologies:
 - 1. Larger scale chlorination devices which can reach many more people per waterpoint than DSW or ILC and have different regulatory and ownership models
 - 2. 'Top-up' chlorination tools, for larger water systems where water may get recontaminated en route to the water point
 - 3. Internet of Things- sensors (for dosing, water pressure, amount of water in a tank, etc) that can add efficiency
 - 4. Filtration and other non-chlorine technologies
- c. What success looks like:
 - i. Identify two new approaches/technologies that can a) cost effectively reach significant new markets and/or b) significantly increase the CE of safe water work in the types of markets we currently target

3. Optimize the cost effectiveness and scalability of our current interventions (DSW and ILC)

- a. ILC:
 - i. ILC is a newer program and there are probably significant efficiency gains we can realize and apply in both Malawi and new countries and contexts. There may be massive new markets that ILC can

address, potentially more cost-effectively than the current rural focus.

- ii. We want to conduct two ILC pilots focused on peri-urban markets. The primary goal will be to develop a delivery model appropriate to peri-urban areas, which are massive, largely underserved, and population dense (and thus potentially more CE than rural areas). In addition, this work will a) help refine the ILC delivery model, b) accelerate our ability to scale the model to new geographies efficiently, and c) generate lessons for the sector and models that can be more easily handed off to partners and country governments.
- iii. Evidence Action has never worked in peri-urban areas for safe water. We see this as one of the most promising geographies for ILC, but there are a number of unknowns of how the delivery model will need to be adapted.
 - 1. For instance, the pilots will help us understand: 1) the best ILC technologies to serve these areas, given existing water systems and infrastructure, 2) current water quality and treatment practices, 3) how to adapt to different regulatory environments and ownership models, and 4) differences in chlorine supply chain and device repair and maintenance.
 - 2. Given the operational differences between countries, conducting pilots in two countries will allow us to build a more replicable model faster, de-risking and accelerating entry into new countries for both rural and peri-urban.
- iv. We believe this could open up an important new global market segment for ILC, which is both large (in Nairobi alone, there are 2.5m people living in slums/informal settlements, which may be appropriate for ILC; barely half of Kenya's urban population has access to water) and potentially more CE than rural areas, due to the higher density.

b. DSW:

- i. DSW will soon be reaching 9m people. Even modest improvements in coverage or cost reduction will result in significantly more reach or savings.
- ii. We envision a small work stream focused on continuing to optimize DSW to increase coverage and reduce cost. This may include exploring ways to improve Dispenser valves for better dosing and reduced maintenance costs, increasing adoption through different community engagement approaches or behavioral nudges, etc.

- iii. These learnings can be applied from the start as we expand to new countries, which is more efficient than making changes mid-program.
- c. What success looks like:
 - i. ILC: Develop delivery model that is appropriate for peri-urban
 - ii. DSW/ILC: Identify improvements (increased coverage, reduced costs) that can enhance CE in current and future countries

4. Expand DSW and ILC to new, high-CE countries:

- a. This work is already underway, with support from the DSW grant.
- b. As we've begun this work and developed a well-informed plan, we've identified gaps in our plan, which was highly notional. To do sufficient due diligence in promising countries, including robust water point surveys (where needed), and to have a sufficient runway to complete those activities, we will need some funding beyond what was included in the DSW budget. This is based on our learnings from ongoing expansion in existing geographies and uncertain access to accurate data about waterpoints in new countries.
- c. What success looks like:
 - i. Expand DSW/ILC to two high-CE countries in 2024, and more in later years
 - ii. Build internal capacity to adopt and deploy SW interventions rapidly and cost-effectively in new countries. This capacity can act as a platform to efficiently roll out DSW/ILC, as well as promising new technologies and approaches developed through this grant.

5. Financing:

- a. SW has historically been underfunded, and many of the major global health donors haven't made big investments. There is a need to bring in more funding to this space. Govts, World Bank and other development banks have historically driven financing for water infrastructure, but water safety is often an afterthought.
- b. Our new Global Water Director has experience and connections here, and we'd seek to leverage this to better understand the funding mechanisms and decision-making processes, to assess the feasibility of bringing in major new funding to Safe Water and ensure governments prioritize it in policies, planning and budgeting.
- c. What success looks like:

- i. Identify 1-2 countries with strong buy-in (among govt, development partner) and develop a plan to leverage significant funding for safe water investment.