

HOW CAN WE create access to clean water in rural Ethiopia?



Previous
exploration of the
challenge

THE CHALLENGE

"The provision of safe water, sanitation and hygienic conditions is essential to protecting human health during all infectious disease outbreaks, including the COVID-19 outbreak."¹

— WHO, 2020

In Ethiopia the reality is that good hygiene is not achievable because clean water and soap are not available or are unaffordable for many communities living in the rural parts of Ethiopia.² Therefore, we want to improve the accessibility of clean water these regions.

WASH – WATER, SANITATION, AND HYGIENE

STATISTICS

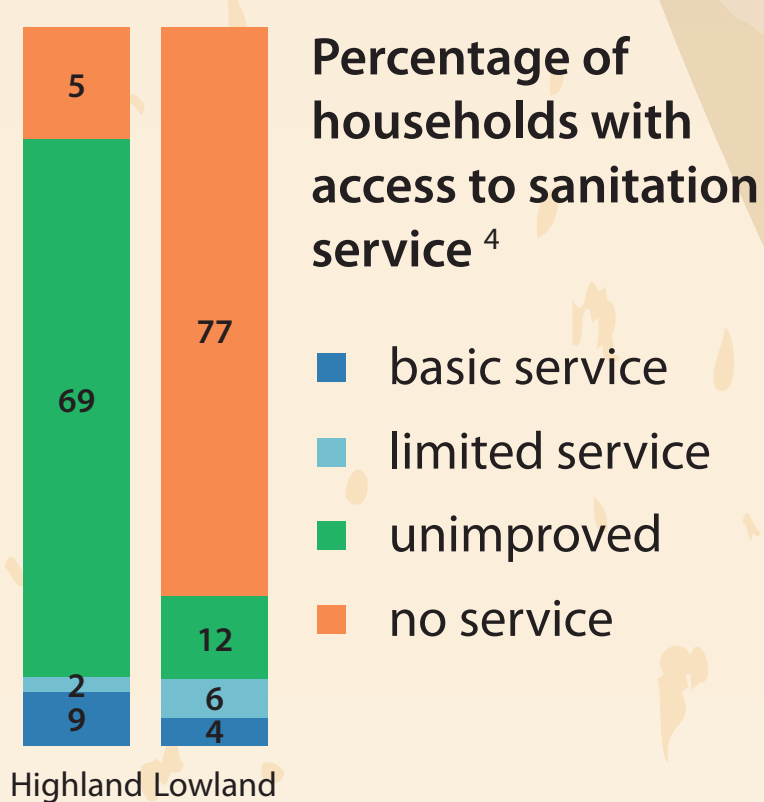
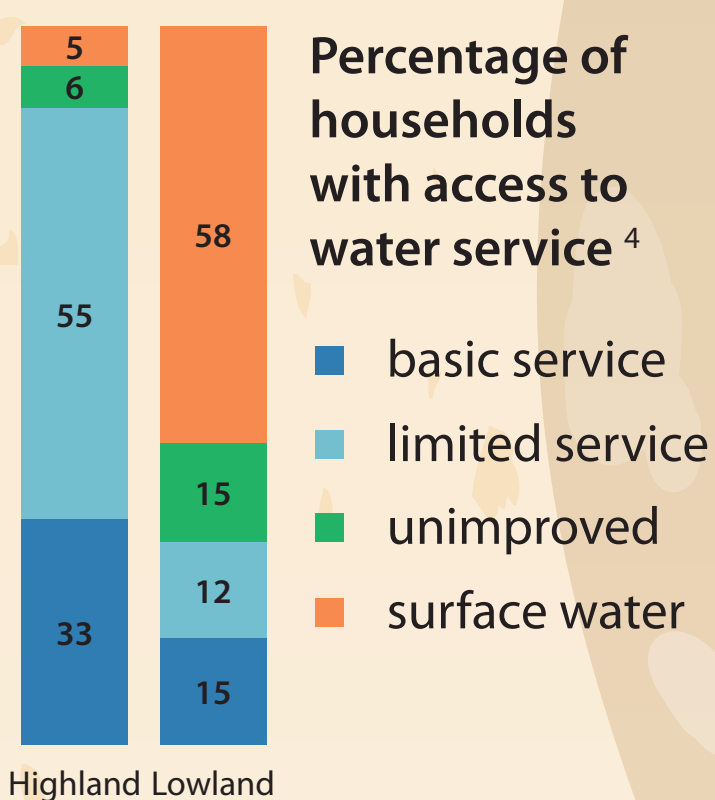
In Ethiopia...

62 MILLION
lack access to safe
drinking water³

97 MILLION
lack access
to improved
sanitation³

60–80%

of communicable
diseases – including
COVID-19 – are
attributed to limited
access to safe water.³



¹ WASH and COVID-19. World Health Organization. (2020). Retrieved 22 September 2020, from https://www.who.int/water_sanitation_health/news-events/wash-and-covid-19/en/.

² Putting hygiene at the heart of the COVID-19 response. Unicef.org. (2020). Retrieved 22 September 2020, from <https://www.unicef.org/ethiopia/reports/putting-hygiene-heart-covid-19-response>.

³ Water, sanitation and hygiene (WASH). Unicef.org. (2020). Retrieved 22 September 2020, from <https://www.unicef.org/ethiopia/water-sanitation-and-hygiene-wash>.

⁴ UNICEF Ethiopia. (2020). Summary Findings from Sustainability Checks for Rural WASH in Ethiopia. Retrieved from <https://www.unicef.org/ethiopia/reports/summary-findings-sustainability-checks-rural-wash-ethiopia>

Ethiopia

RURAL
water management

longevity
vulnerable
shortage

infected
water

accessibility

senses

health

hygiene

polluted
water

COVID-19

well-being

education

children

WASH
SAFETY

virus

mosques
clinics

bodily health

thought

crisis

poverty

aid
schools

girls

imagination

sanitation

wealth

water crisis



STAKEHOLDERS

Our main stakeholders will be communities in the rural areas of Ethiopia. These people contribute the least to the problem, but suffer the most.



CONTEXT & ACTIVITY



Rural Ethiopia is roughly divided into the Highlands and Lowlands.

The Lowlands lack WASH services in general. In the Highlands, there is improved sanitation, but it lacks quality, reliability and accessibility.⁴



EXISTING INITIATIVES

Atmospheric water harvesting

These are technologies that capture vapour and liquid water droplets from humid air.



Water filter cup ▲

This cup can filter dirty water into drinking water. It includes jelly from the cacti, which purifies the water.

Rainwater harvesting ►

This is a system in which one or more tanks store rainwater collected from a roof.



THE NEXT STEP

So far we have narrowed down our challenge to a specific geographical region and a specific aspect of the overarching theme of water and sanitation during the COVID-19 pandemic.

We will continue refining our challenge into a specific problem that can be solved by a design. Ethics will be one of the main points we will take into consideration while designing our solution. We also need to take the appropriateness of our product into account. Therefore we need to understand the problem from our stakeholders perspective.

For example, a design that is too high tech would not be an appropriate longterm solution, since it would be difficult to maintain. Lastly, we need to think about the way our future design will mediate the stakeholders perception of todays society.