Fraym for Water, Sanitation, and Hygiene (WASH)

Fraym is a U.S. Certified Small Business that uses machine-learning to generate precise information on communities with data gaps. Governments and organizations around the world use our location-based data to improve planning, enhance evaluations, and to uncover insights that traditional data analysis can't reveal.

Using advanced algorithms, we produce data about population characteristics and behaviors that cover a wide range of indicators including socioeconomics, attitudes, media consumption, health, employment, access to services, and proximity to and use of natural resources. Our advanced geospatial data and analysis is available for 100+ countries at one square kilometer resolution—even in remote areas.

What We Deliver

Hyperlocal Population Data

Location-based data on communities including demographic, socioeconomic, and health related indicators at the 1km² level, and health facility locations to inform project design and adaptation.

Needs Assessment: Assess availability of water infrastructure and sanitation and hygiene products and services, as well as key sanitation and hygiene practices to understand needs.

Market Assessment: Identify, contextualize, and quantify your target market for existing sanitation and hygiene products and services to understand barriers to market penetration or opportunities for new products and services for new market development.

Communications Campaign Planning: Identify most appropriate and effective communication and outreach channels for your target audience to inform SBC campaigns and demand generation activities.

Infrastructure Site Selection: Analyze trends in population dynamics, such as population growth, and points of interest such as schools, hospitals, public and commercial buildings to inform WASH infrastructure improvement planning.

Climate Trend Analysis: Analyze historical trends related to climate conditions to inform water resilience planning.

Social Network Analysis: Map relationships and connections that exist between actors, influencers, and communities within the local WASH sector.

- Service Access
- Demand Analysis
- Communication Access
- Catchment Analysis
- Time Trend Analysis
- Attitudinal Analysis

Development Partners

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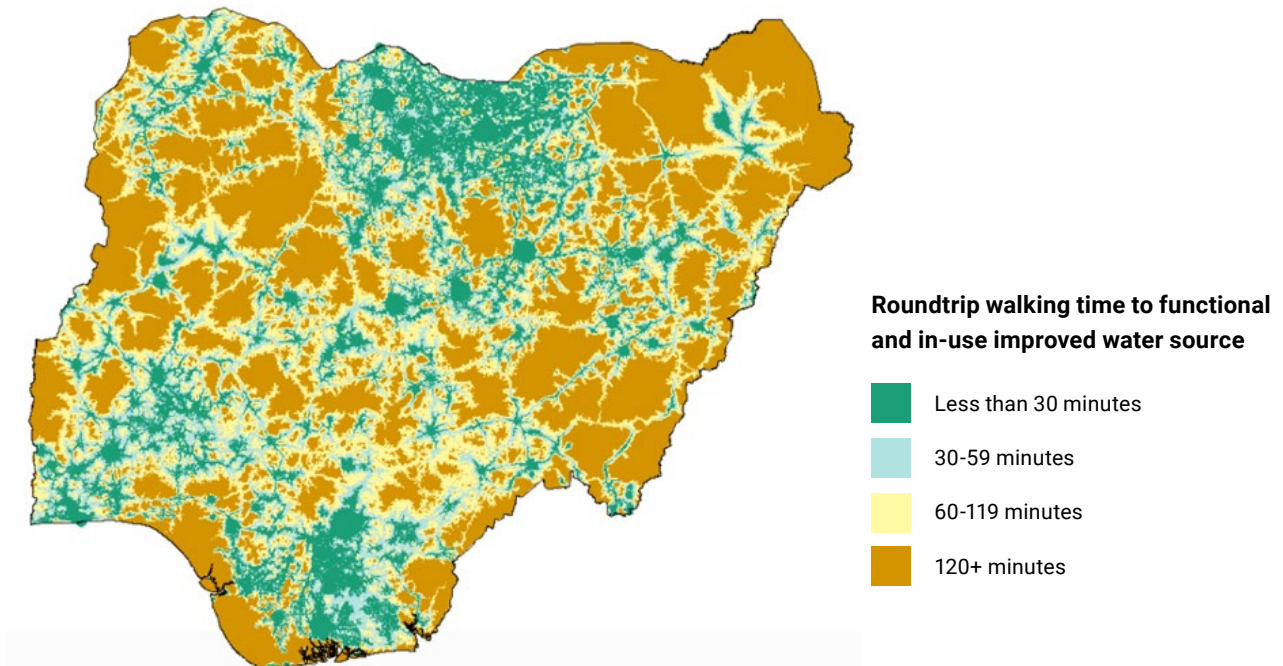
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Use Case: Water Needs Assessment

Fraym supported the World Bank in updating the Nigerian Rural Accessibility Index, which estimates the round-trip walking distance to a functioning water source from a given location. By pairing water infrastructure data—including the location of water points current and in use—with population data, Fraym calculated the total Nigerian population's distance to an improved water source and highlighted areas to prioritize interventions for improved rural WASH accessibility.

Roundtrip walking time to functional and in-use improved water source

- Less than 30 minutes
- 30-59 minutes
- 60-119 minutes
- 120+ minutes

Relevant Experience

Site Selection

To **quickly qualify sites** for a solar water pump project, Fraym provided hyperlocal information for 165 villages in Tanzania. This information included population characteristics, population surrounding tap sites in sub-villages, and wealth profiles of pastoralists who would be potential users of the solar pumps.

Sanitation and Hygiene

One of the most effective ways to stop the spread of a virus is handwashing. Fraym created a custom **WASH exposure risk profile** for Nigeria, combining population indicators related to WASH access and use to pinpoint populations who have low access to critical WASH infrastructure.

Water Governance

In Mozambique, Fraym analyzed how **rapid population growth** would impact WASH infrastructure access if no new investments in infrastructure were to occur. By mapping communities' current access levels, Fraym was able to determine **where infrastructure investment should be prioritized**.

Climate Adaptation

In Malawi, Fraym weaved together data on agriculture and livestock land use with climate related data on drought and rainfall to inform **climate-smart crop diversification** strategies for smallholder farmers.