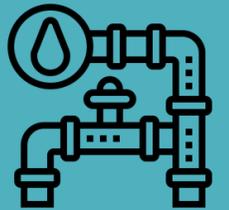
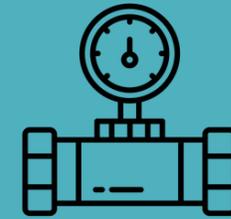
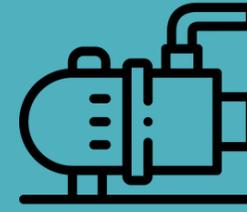




# Introduction to mWater ACHAP

16 August 2023



# Training Agenda

<b>Day 1:</b> <b>16<sup>th</sup> August</b> English: 11am-1pm EAT	Introduction to the mWater platform (Portal and Surveyor) Designing surveys and deploying surveys for data collection Introducing examples of WASH in HCF and IPC surveys Exercise on survey design
<b>Day 2:</b> <b>17<sup>th</sup> August</b> English: 11am-1pm EAT	Review survey design exercise and feedback Data collection: process, troubleshooting, training data collectors. Data viewing, cleaning, analysis
<b>Day 3:</b> <b>23<sup>rd</sup> August</b> English: 11am-1pm EAT	Data analysis: dashboards, maps, data grids, consoles Organization structure and management on mWater Custom app configuration: what it does, set up and updating.
<b>Day 4:</b> <b>24<sup>th</sup> August</b> English: 11am-1pm EAT	Custom App configuration set up and updating. Other (TBC based on needs)

# Day 1 Agenda

15 min - Intro to mWater and its capacities

20 min - Demo of mWater Surveyor and Portal & Questions

10 min - Practice: log in on Surveyor and fill in the survey “Introduce yourself – ACHAP”

30 mins - Designing new surveys: how to create and design a survey

- Questions types & Indicators
- Example of HCF & IPC specific surveys
- Survey Deployment and approvals
- Results viewing
- Exercise: develop your own survey (for Day 2)

20 mins – Organisational chart set up and management

15 min - Questions & Next steps

**Users:  
Governments  
and utilities**



# mWater

20 million surveys

200,000+ users

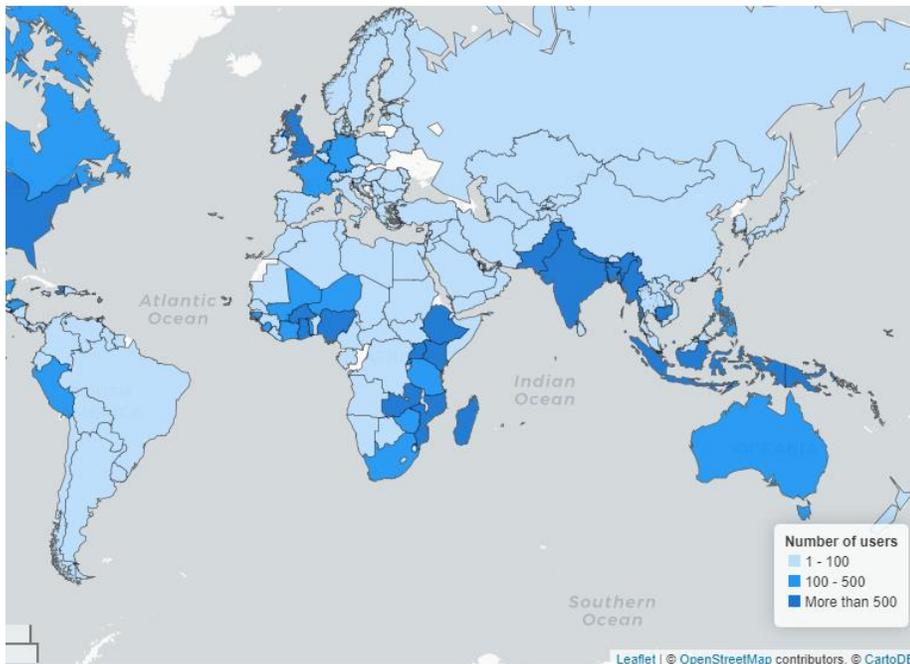
200 countries

**Public Digital Good: free mobile  
data collection and management  
platform**

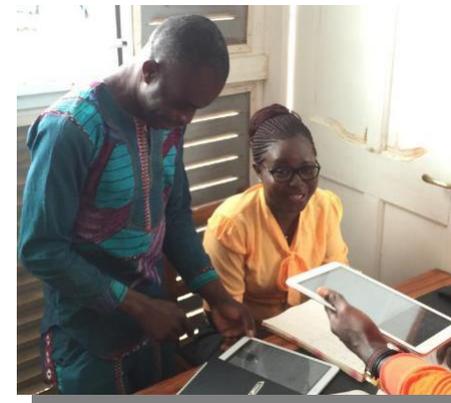
**Designed by WASH experts**

**Expanded to cover all sectors**

Users by Country



**Local NGOs  
and  
researchers**



**International  
organizations  
and large NGOs**

# About mWater

mWater is a mobile data collection and analysis platform which is **free for unlimited use**

mWater consists of two main components:

- 1. mWater Surveyor** – Mobile app for [Android](#), [iPhone](#), & [web](#)
  - Data collection – Online & offline
- 2. mWater Portal** - Website at [portal.mwater.co](http://portal.mwater.co)
  - Design of data collection (Surveys, sites, issues, etc)
  - Survey deployment and assignment
  - Data approvals and cleaning
  - Visualization, analysis, sharing and export



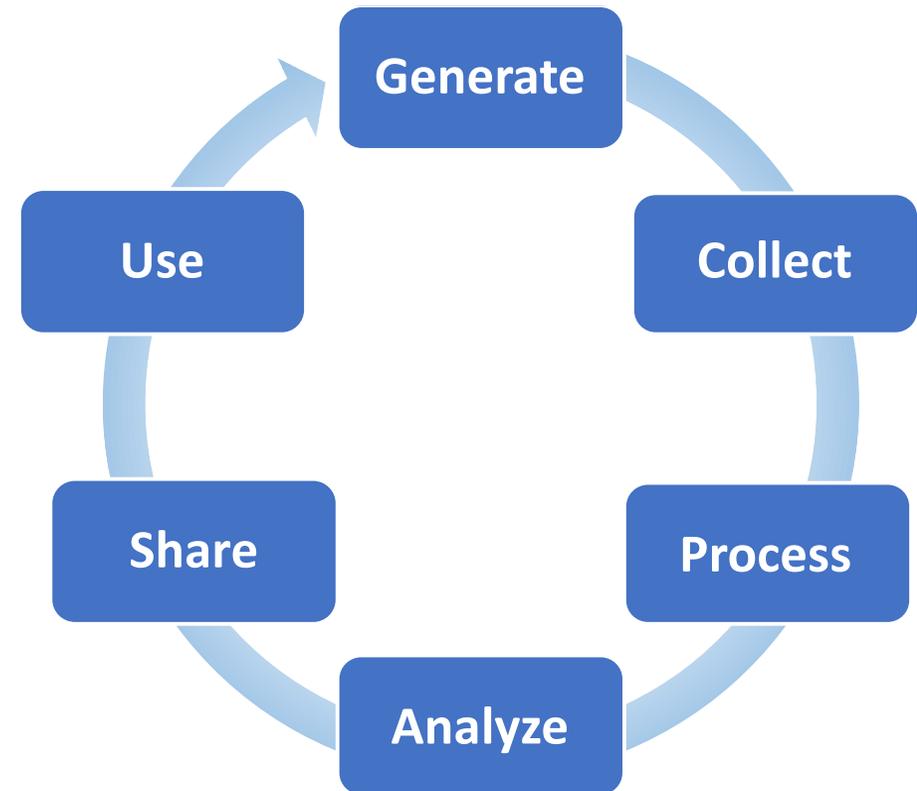
mWater  
Portal

mWater  
Surveyor

# mWater democratizes data analytics

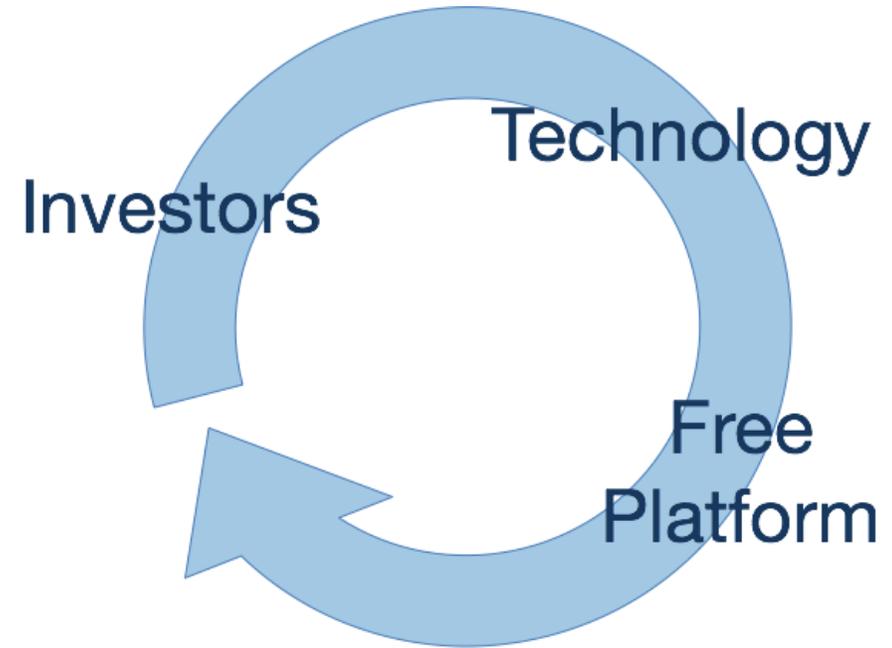
We help governments digitize by overcoming barriers

- **Free software-as-a-service** model to ensure sustainability
- **Open standards** to reduce the technical expertise needed
- **User-owned, exportable data** to ensure portability and avoid lock-in
- **Mobile-first** design
- Digital tools for the entire **data value chain**



# Open access business model

- All **software features are free to the end user** with costs supported by revenue from paying clients
- Large organizations and programs **invest in new features that become available to everyone**
- No ongoing software fees, hardware to maintain, or IT specialists required
- Sustainable data systems handed over at the end of program



# What can you do with the mWater platform?

- **Surveying** – A one-time or infrequent data collection activity

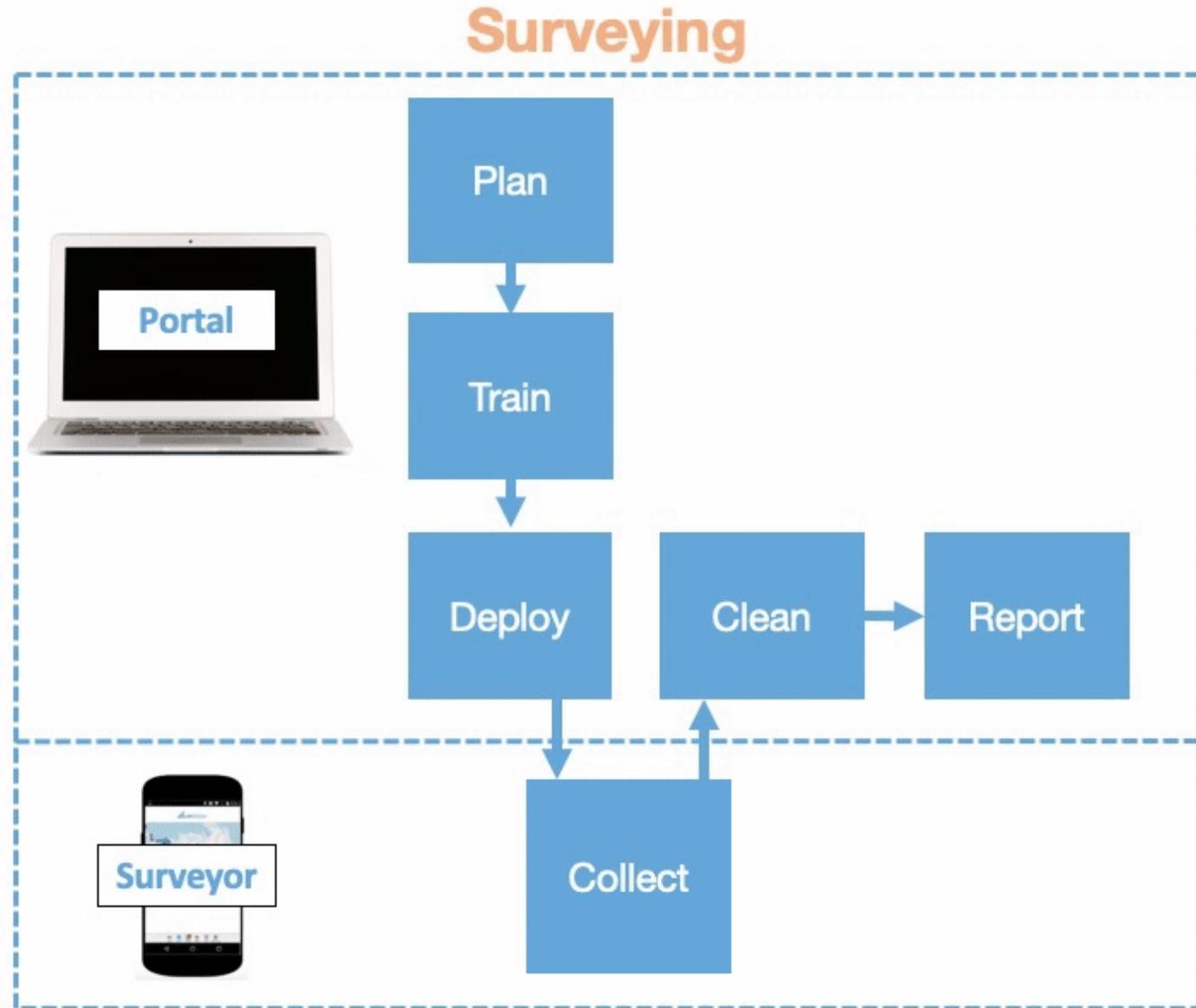
*e.g. sampled household survey*

- **Monitoring, evaluation, and learning (MEL)** – A recurring data collection, learning and adaptation cycle

*e.g. annual water point updates*

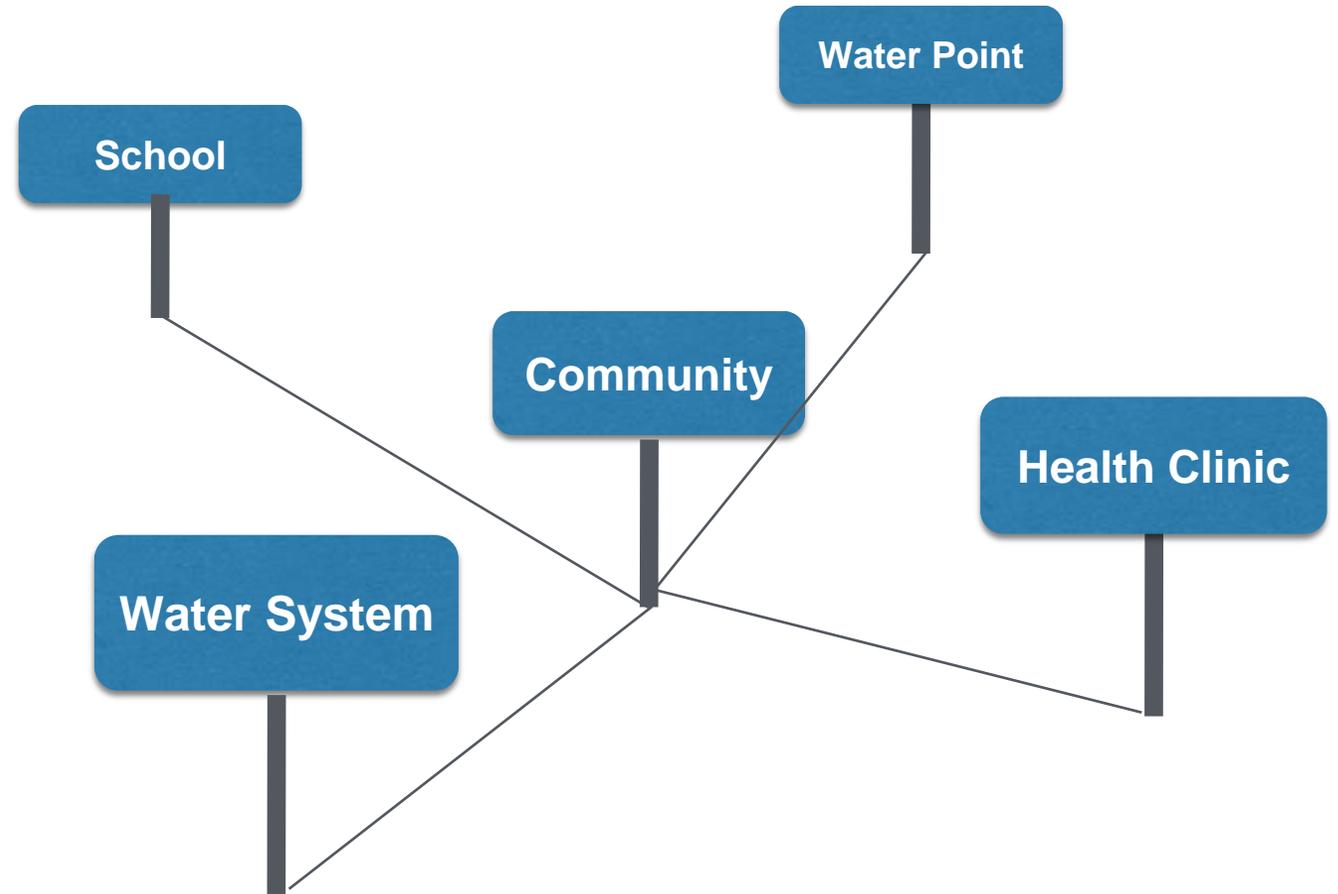
- **Management** – A regular process of identifying, assigning, performing, and responding to tasks (in addition to MEL)

*e.g. water utility maintenance issues*



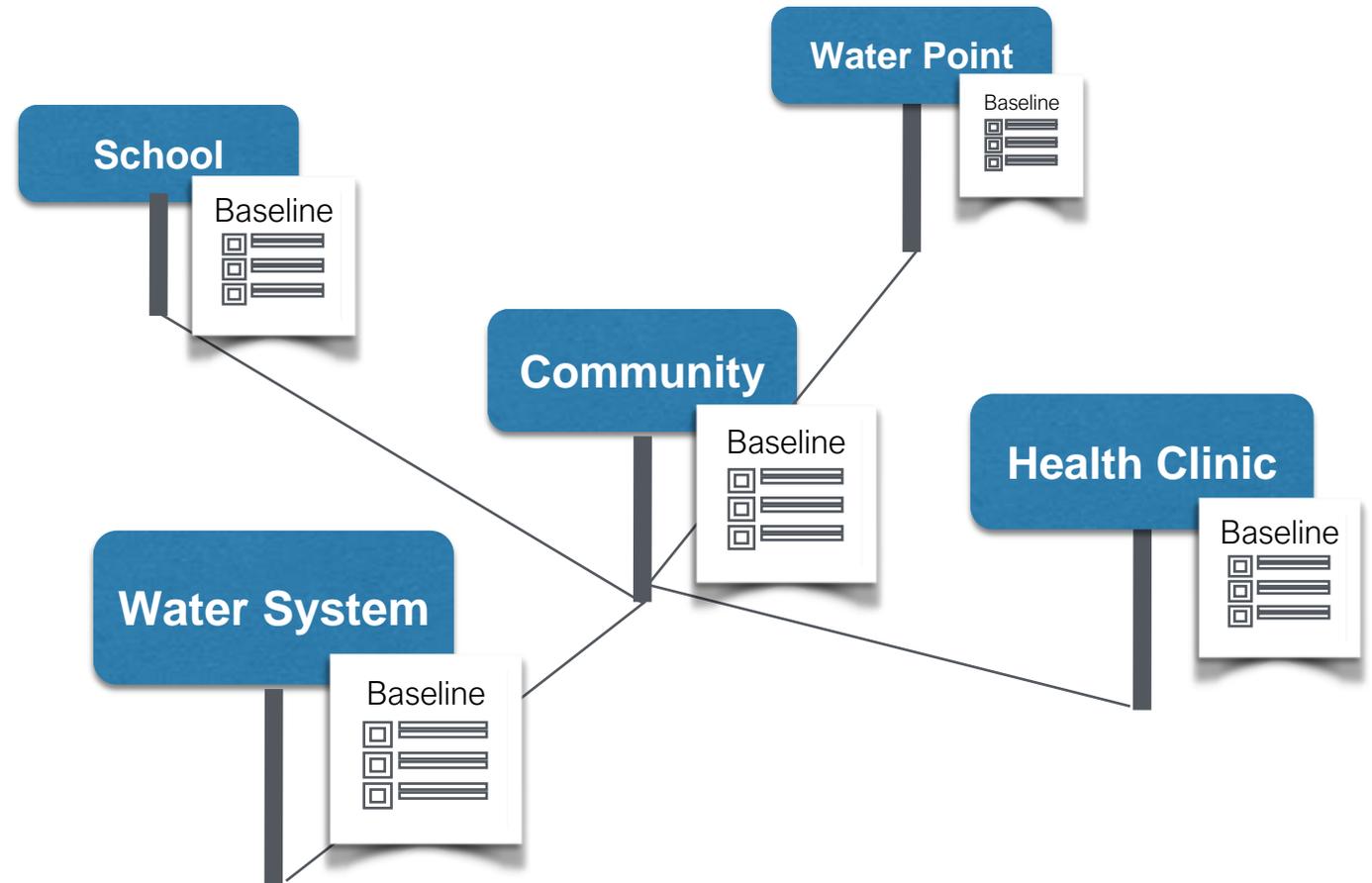
# mWater monitoring approach

1. Map physical locations as re-usable **Sites**
2. Attach **Surveys** with baseline data to sites
3. Add updates as new Surveys to existing sites



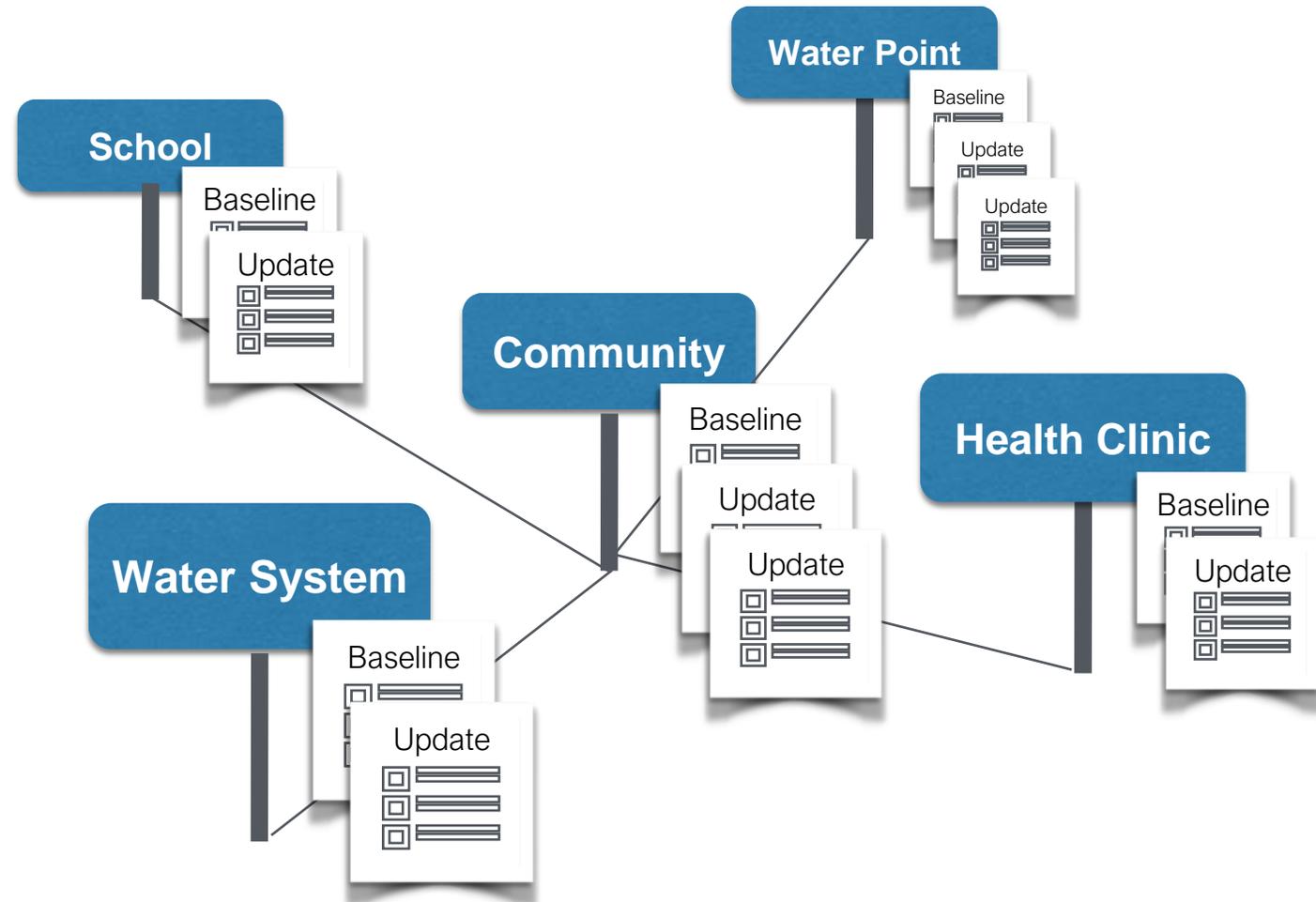
# mWater monitoring approach

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# mWater monitoring approach

1. Map physical locations as re-usable **Sites**
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- ▶ 3. Add **data updates** as new Surveys to existing sites



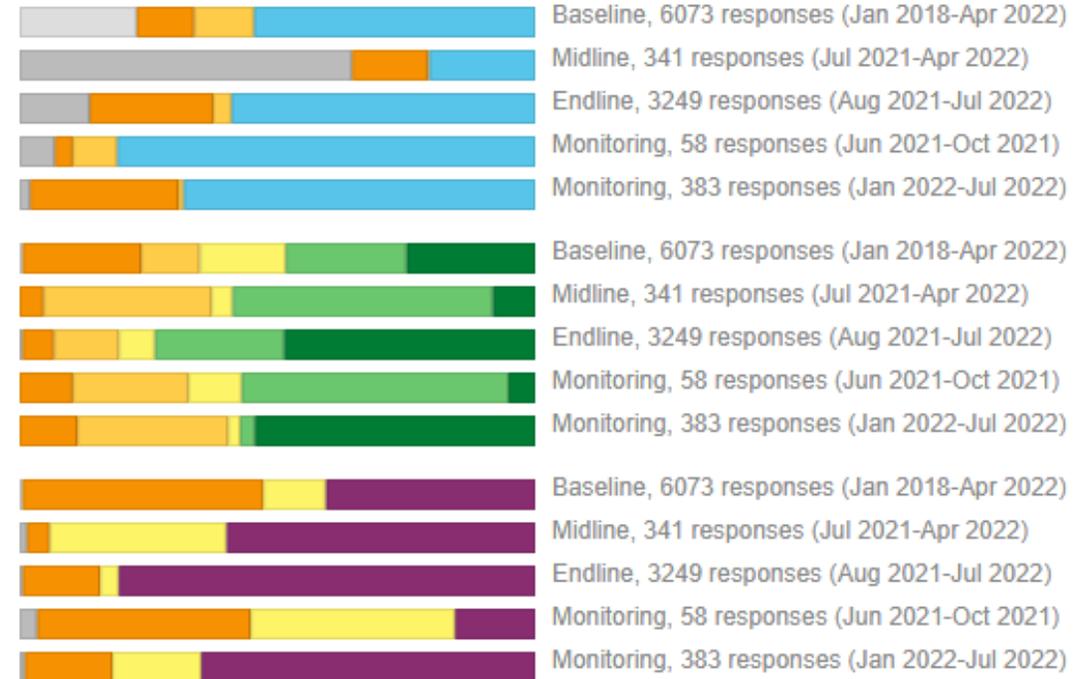
# Longitudinal monitoring example - RapidWASH

## SDG

SDG 6.1: Water service ladder RW - Drinking water services refers to the accessibility, availability and quality of the main source used by households for drinking, cooking, personal hygiene and other domestic uses.

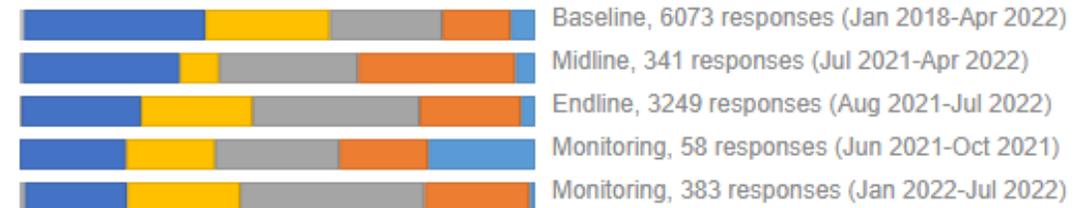
SDG 6.2: Sanitation service ladder RW - Sanitation services refer to the management of excreta from the facilities used by individuals, through emptying and transport of excreta for treatment and eventual discharge or reuse.

SDG 6.2: Hygiene service ladder RW - Hygiene refers to the conditions and practices that help maintain health and prevent spread of disease including handwashing, menstrual hygiene management and food hygiene.



## Household Wealth

EquityTool Wealth Quintiles - Tracking which wealth quintile of the country the household belongs to on the basis of EquityTool categories.



Track community progress on SDGs

# mWater tools for service providers

## Features specifically designed for utilities and water operators



### 1. ASSET MANAGEMENT

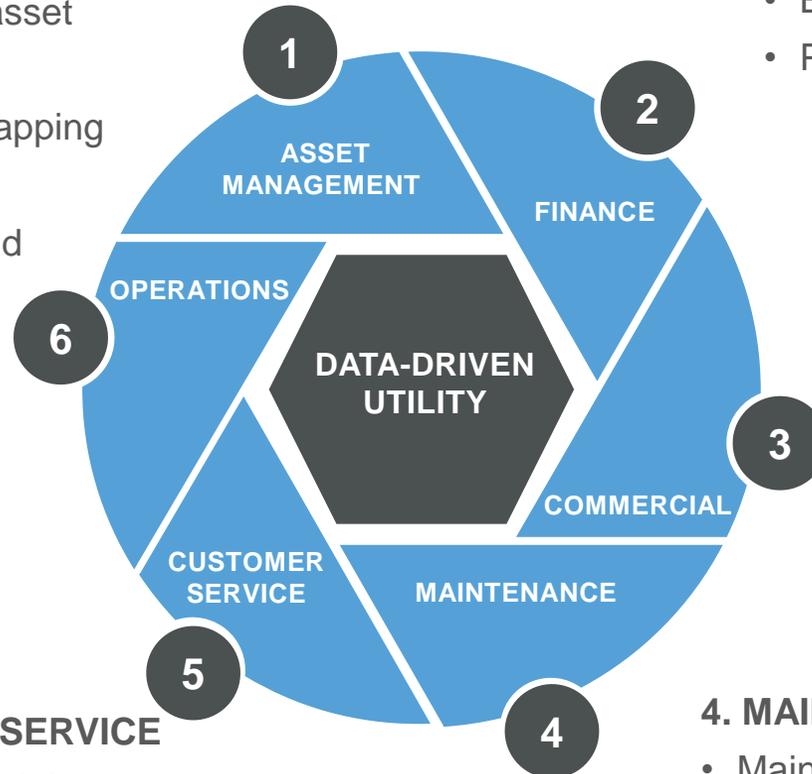
- mWater Global water asset data standard
- Offline mobile asset mapping and updating
- Export points, lines, and polygon data to GIS

### 6. OPERATIONS

- Key performance indicator monitoring against targets
- Water quality monitoring

### 5. CUSTOMER SERVICE

- Complaint / leak issue tracking and follow-up



### 2. FINANCE

- Basic utility accounting system
- Planning tool (coming soon)
  - Budget estimation
  - Capital improvement planning

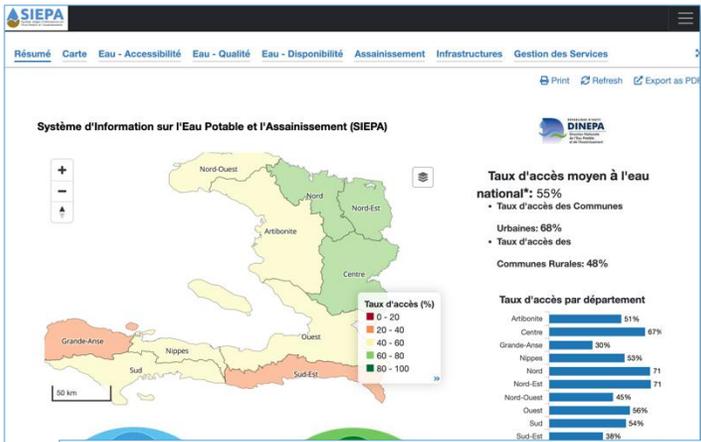
### 3. COMMERCIAL

- Customer database and billing system
- Meter reading
- Kiosk sales module

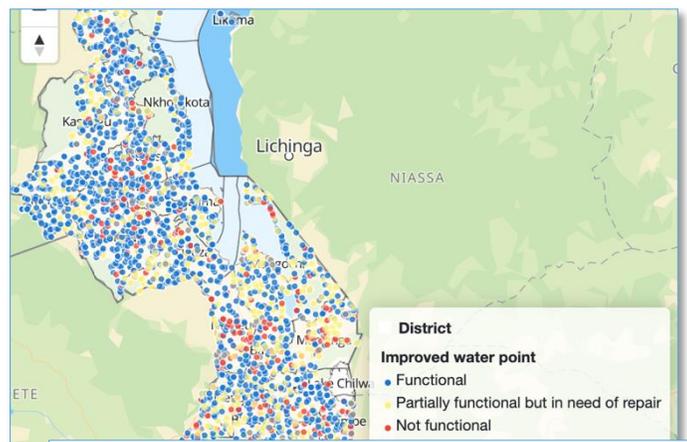
### 4. MAINTENANCE

- Maintenance issue tracking and follow-up
- Workflows / digital work orders (coming soon)

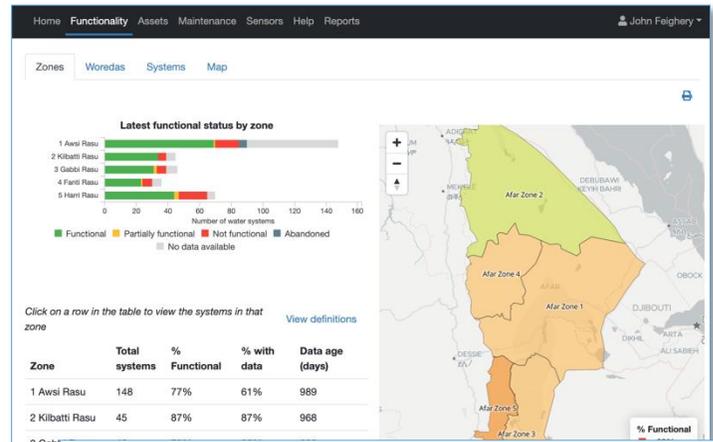
# Examples of mWater based MIS from different countries



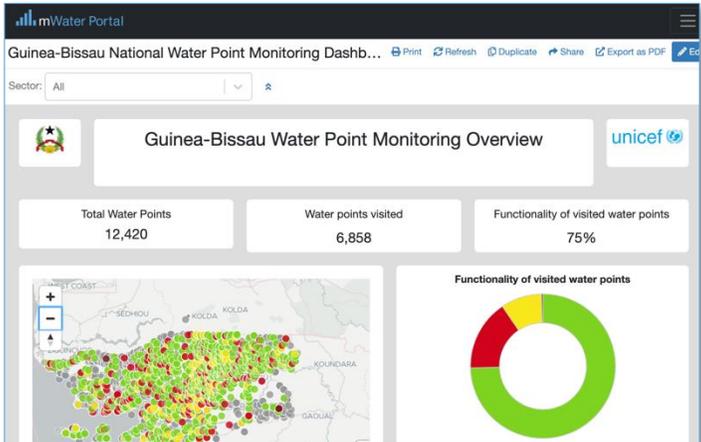
**Haiti**  
National water and sanitation monitoring platform



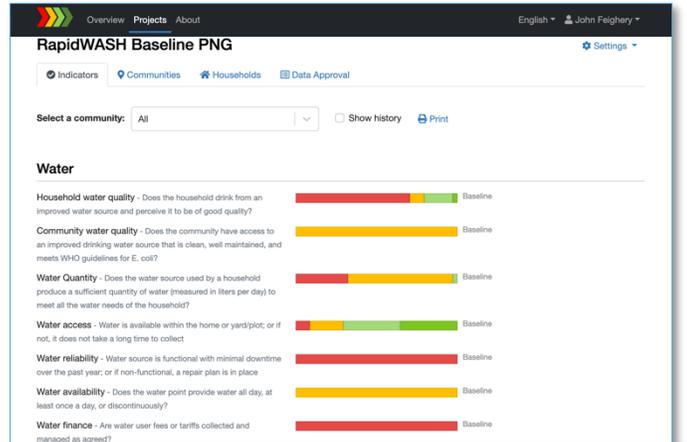
**Malawi**  
National water asset inventory



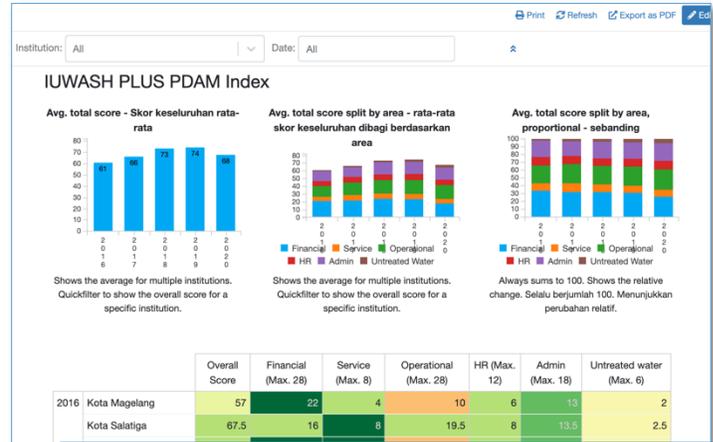
**Ethiopia**  
Regional Water Asset Management System



**Guinea Bissau**  
National water point monitoring system



**Papua New Guinea**  
National WASH MIS / RapidWASH (with WaterAid)



**Indonesia**  
Water utility index (USAID IUWASH Tangguh)

# Demo - mWater Surveyor and Portal

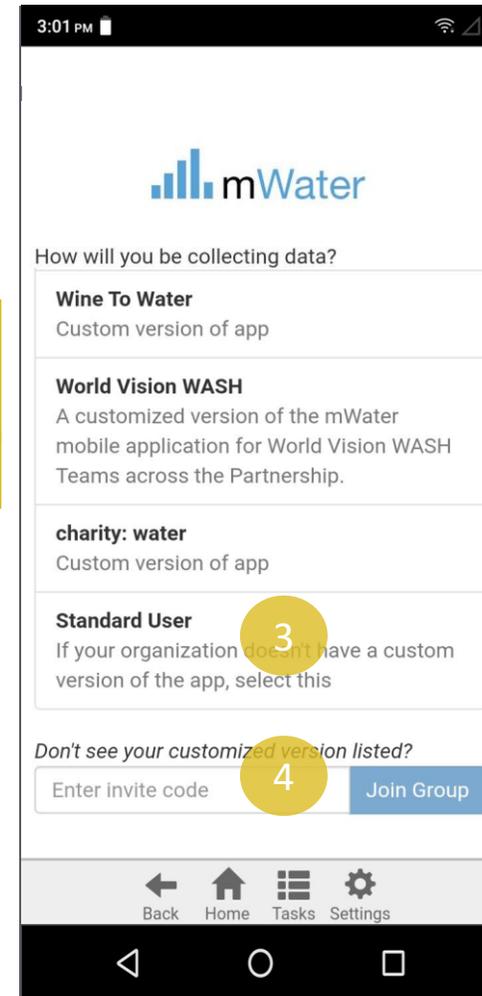
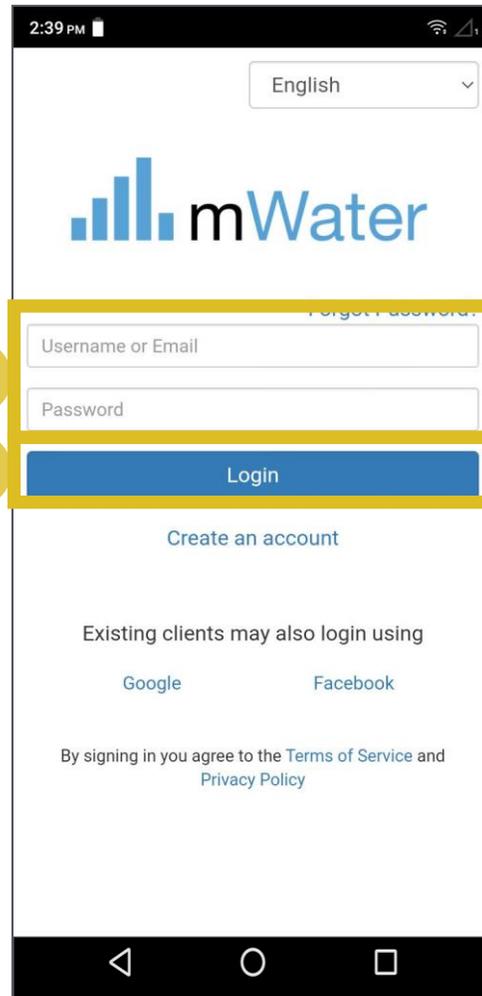
# Practice - Use mWater Surveyor to fill in Survey

# Logging in

1. Enter your **username/email** and **password**
2. Press the **Login** button
3. Select a configuration for the app. Custom configurations are created to streamline the app for a specific organization or use-case. The majority of users will be using the **Standard User** configuration.
4. If you are part of an organization, your survey administrator may provide you with a unique code, which will automatically add your username to their organization.

Note: You **must be online** to log in!

Even if you close the app or restart the phone, you will stay logged in.



# Using mWater in a web browser

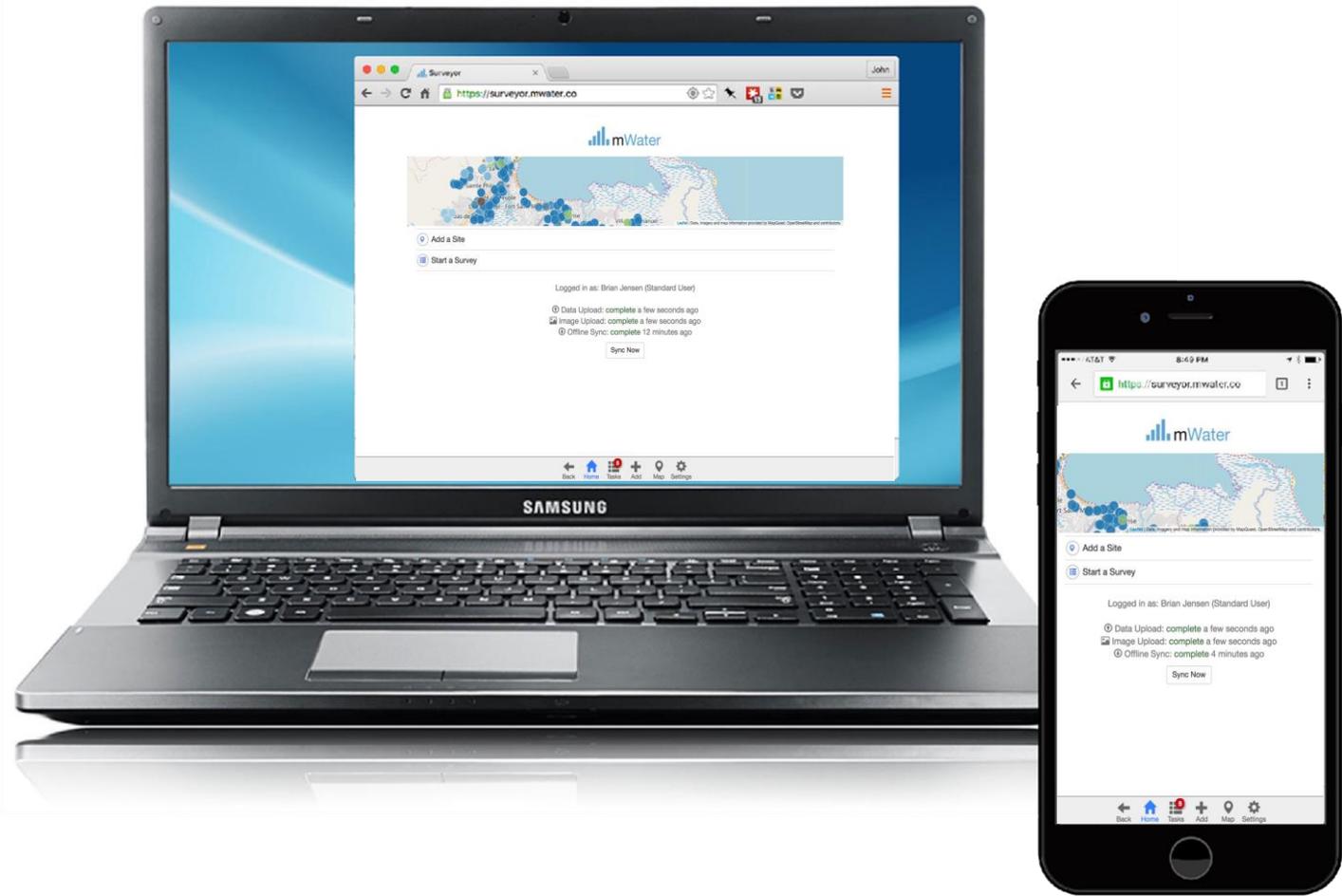
You can open the Surveyor app on non-Android devices by going to:

<http://surveyor.mWater.co>

mWater recommends using the Chrome web browser.

The web app will work offline *as long as you don't close the window.*

You can have the app open on multiple devices at one time.



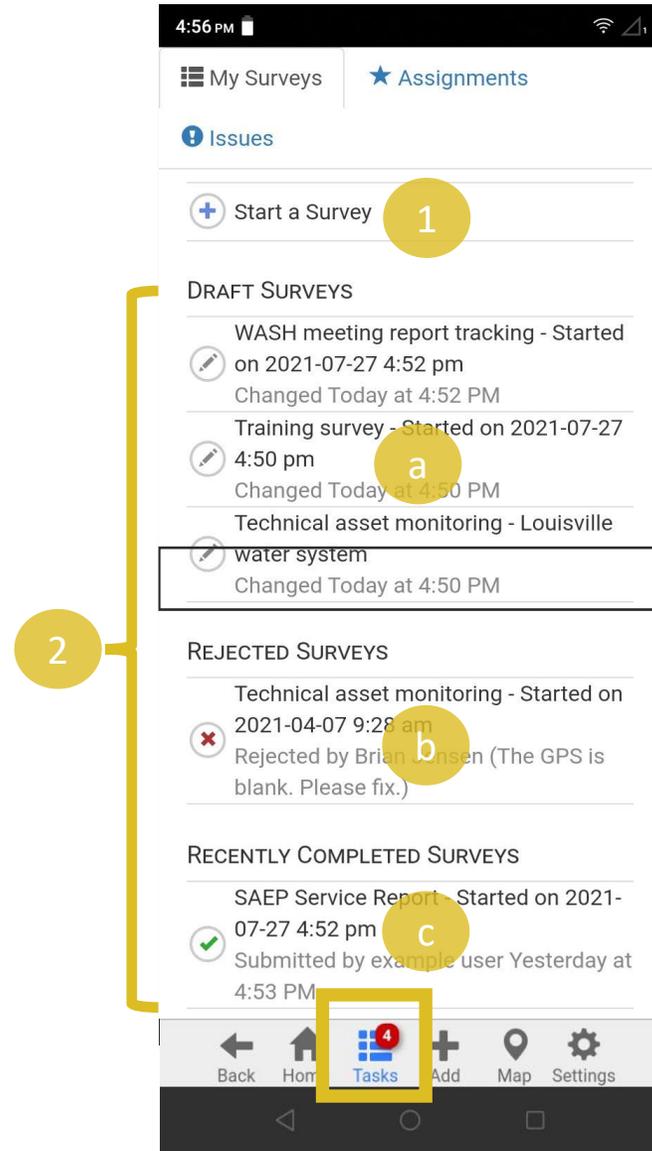
# Tasks - Surveys

The Tasks page displays surveys, assignments, issues, and site approvals\*

The surveys page contains:

1. A button to start a new survey
2. A list of survey responses and their current status. Each response shows the name of the survey and the draft name (if applicable).
  - a) **Draft status** – Also displays the latest date it was updated
  - b) **Rejected status** – Also who rejected the response and the message that they wrote which needs correction
  - a) **Completed (Final or Pending status)** – Shows the date and user who submitted the survey

\*Site approvals is only available for managers who have activated Manager mode in the settings menu



Fill in:

“Introduce yourself – ACHAP”

# Use mWater Portal to develop new Surveys

# Portal tabs -Surveys

Surveys –

1. Design, translated, assign, and deploy survey forms
2. Clean and approve completed survey responses
3. Visualize and report survey data in maps, graphs, tables, and more

The **Survey** is the questionnaire template that is used when creating new survey responses  
*e.g. Water point survey*

The **Survey responses** are the individual questionnaires which are created for each visit  
*e.g. Khamasa well report, March 2020*

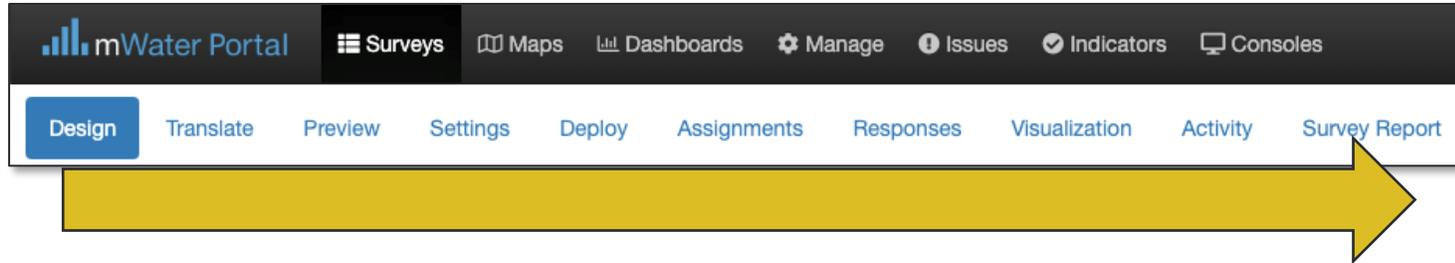
The screenshot displays the mWater Portal interface for managing surveys. The top navigation bar includes 'mWater Portal', 'Surveys', 'Maps', 'Dashboards', 'Manage', 'Issues', 'Indicators', 'Consoles', 'Help', and a user profile 'example user'. Below this, a secondary navigation bar features tabs for 'Design', 'Translate', 'Preview', 'Settings', 'Deploy', 'Assignments', 'Responses', 'Visualization', 'Activity', and 'Survey Report'. A yellow line with three numbered circles (1, 2, 3) highlights the 'Design', 'Responses', and 'Survey Report' tabs. The main content area shows a 'Water point survey' form with the following fields:

- Water point \***: A dropdown menu with the placeholder text 'mWater ID of Site' and a 'Select' button.
- Date of survey \***: A date input field with the placeholder text 'YYYY-MM-DD' and a calendar icon.
- Functional status**: A group of radio buttons with the following options:
  - Functional
  - Partially functional but in need of repair
  - Not functional
  - No longer exists

A right-hand sidebar contains a search bar and a table of contents for the survey form:

- Search...
- 1. General information
  - 1.1. Water point
  - 1.2. Date of survey
  - 1.3. Functional status
  - 1.4. Monitoring type
- 2. Management
  - 2.1. Management structure

# Surveys workflow



Surveys follow a workflow which is shown by the order of the tabs in the survey form view:

**Design** - Create the questionnaire that the enumerator will use to collect data

**Translate** – Set the base language and translate survey text into any other language

**Preview** – View the survey in the same format as the enumerator will see it

**Settings** – Set permissions and other options

**Deploy** – Define roles and permissions for a set of survey responses

**Assignments** – Delegate enumerators to conduct a specific set of survey responses

**Responses** – View, approve, reject, and edit individual survey responses

**Visualizations** – Visualize aggregate data in a standard way

**Activity** – Track progress and performance of the survey and enumerators

**Survey report** – Customize a data dashboard for viewing results from the survey

# Question types

The question **Type** controls what kind of data can be entered.

Question type	Description
Text	type a response using the keyboard
Number	type a number using the number keypad
Dropdown	pick a single answer from a dropdown
Radio Button	pick a single answer from a list
Checkbox	single checkbox
Multi-check	pick more than one answer from a list
Date	enter a date, time, or both using a calendar
mWater Site	select a site to link to this survey
Location	set GPS coordinates using device or map
Units	number with units of measure included
Image (s)	use camera (or gallery) to capture one or more images
Text List	add multiple items of text in a list
Cascading lists	displays several dropdown questions which are each conditional on the previous ones
Scan Barcode	get text or numbers from a QR or barcode
Matrix	enter data in a table with pre-defined rows and columns
Roster matrix	enter data in a table with pre-defined columns, where enumerators can add rows
Question group	enter a set of questions, grouped together
Roster group	enter a set of questions, grouped together, where enumerators can click +Add to repeat the question group

# Survey approvals

To ensure that data collected is reliable, most survey administrators will add a survey approval step which requires the supervisor to approve or reject each survey response before it is finalized.

## Approval steps:

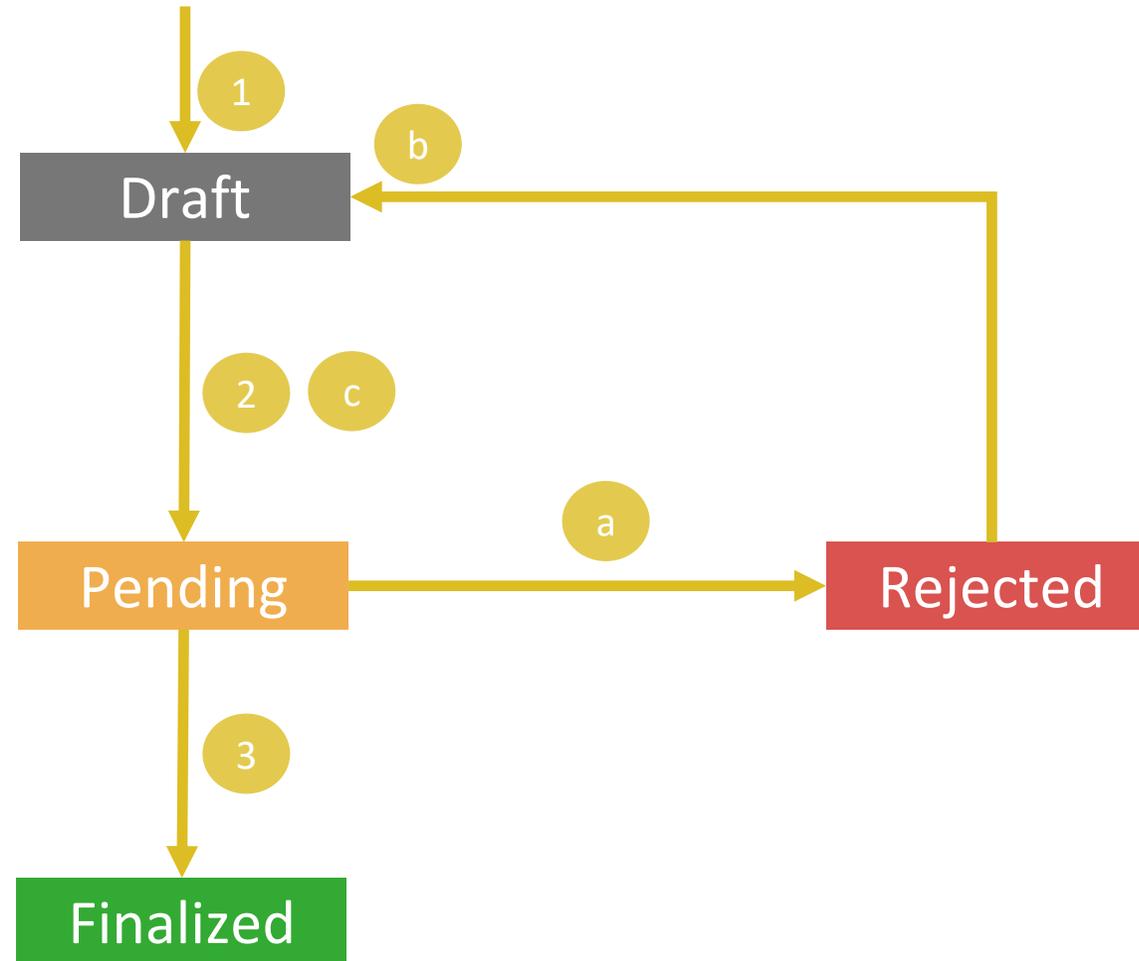
1. Enumerator starts a survey response
2. Enumerator submits the response

If the response has errors:

- a) Supervisor rejects the response due to errors
- b) Enumerator corrects the response
- c) Enumerators submits it again

If the response does not have errors:

3. Supervisor approves the response



# INDICATORS

## Global Indicator Library + Create

The mWater Global Indicator Library contains standardized, consistent indicators that you can easily add to populate your surveys with questions. This library comprises highly researched and field-tested indicators from partner organizations. Indicators make collected data comparable across organizations and geographies. They also make it possible to share outcomes of your data to the public at the indicator level while raw, private data. To add an indicator to a survey you are editing, click on the [Indicator Library](#) link on the top right of the survey designer.

Search all indicators...

Sort Indicators by Sustainable Development Goal:



[Edit](#) [Duplicate](#) [Delete](#)

[Back To All Indicators](#)

## SDG 6.2a: Household - Sanitation service ladder (SDG6\_HH\_S)

WHO/UNICEF Joint Monitoring Programme Core Household indicator for sanitation at the household level

Category: JMP service levels  
# Data Points in mWater: 51116  
Part of: SDG 6 WASH in Households - Core

[+ Start New Survey For This Indicator](#)

This is the core household sanitation indicator developed by the UNICEF / WHO Joint Monitoring Programme. Using a set of questions or observations, the household is assigned a category of sanitation service according to the JMP sanitation service ladder.

### Contents

- [Definitions](#)
- [Notes on use](#)
- [Calculations](#)
- [Evidence](#)
- [Recommended visualizations](#)
- [References](#)
- [Version history](#)
- [Properties](#)
- [Comments](#)
- [Question Sets](#)

### Definitions

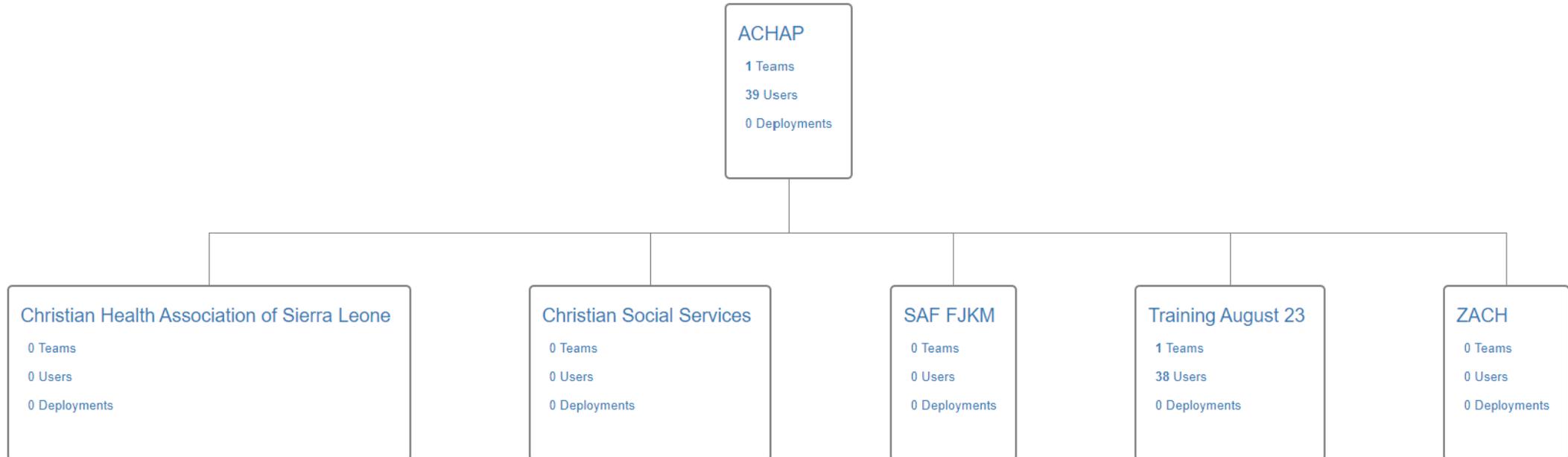
**Service Level** categories are defined as follows:

- **Safely managed:** Use of improved facilities which are not shared with other households and where excreta are safely disposed in situ or transported and treated off-site
- **Basic:** Use of improved facilities which are not shared with other households
- **Limited:** Use of improved facilities shared between two or more households
- **Unimproved:** Use of pit latrines without a slab or platform, hanging latrines or bucket latrines
- **Open defecation:** Disposal of human faeces in fields, forests, bushes, open bodies of water, beaches and other open spaces or with solid waste

Standard set of indicators that can be added to any surveys

# Organizational structure for ACHAP

Organization: ACHAP



<b>Survey</b> (Design of a form)	<b>Deployment</b> (Set of responses to a form)	<b>Organization</b> (Structured group of users)	<b>Site</b> (Location monitored over time)	<b>Dashboard, Map, Datagrid, &amp; Console</b> (Data visualizations)
<p><b>Managed by</b> The organization or organization brand which can see basic information about the survey</p> <p><b>Admin</b> Can edit form design and view and edit all responses</p> <p><b>Deploy</b> Can create new deployments</p> <p><b>View</b> Can view the design of the form</p>	<p><b>Enumerators</b> Can open the form in Surveyor App and submit responses</p> <p><b>Approvers</b> Can approve or reject responses</p> <p><b>Managers</b> Can view, edit, or approve responses at any time</p> <p><b>Viewer</b> Can view final approved responses</p>	<p><b>Admin</b> Can create lower level branches and teams, add/remove users, change settings</p> <p><b>Managers</b> Automatically added as managers to new deployments</p> <p><b>Viewer</b> Automatically added as viewers to new deployments</p>	<p><b>Managed By</b> User or organization that can edit or delete the site data</p> <p><b>Site privacy levels:</b></p> <p><b>Protected</b> (recommended): any user can see the basic site data and reference site in surveys</p> <p><b>Private:</b> only the Managed By organization can view site</p> <p><b>Public:</b> any user can view and edit the site data</p>	<p><b>Admin</b> Can view, edit, and delete visualization and share access to it</p> <p><b>View</b> Can view all data and visualizations on the page</p> <p><b>Create Shareable Link</b> Generates a unique URL to provide view access without an mWater account</p> <p><b>Create Shareable Link With Quickfilters Locked</b> Generates a unique URL to provide view access without an mWater account only to the filtered dataset</p>



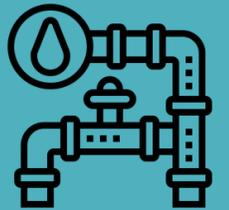
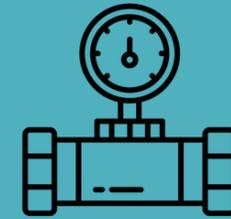
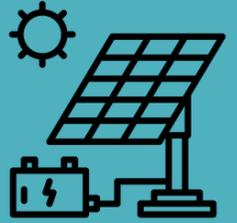
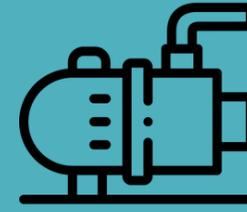
## Exercise for day 2

- Develop a survey that responds to your organisation's data needs
- Link at least 1 site type (e.g. Health care facility)
- Include at least 1 indicators from library



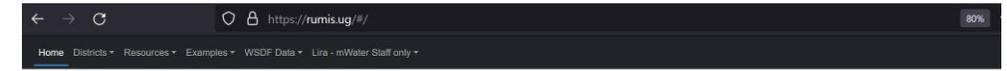
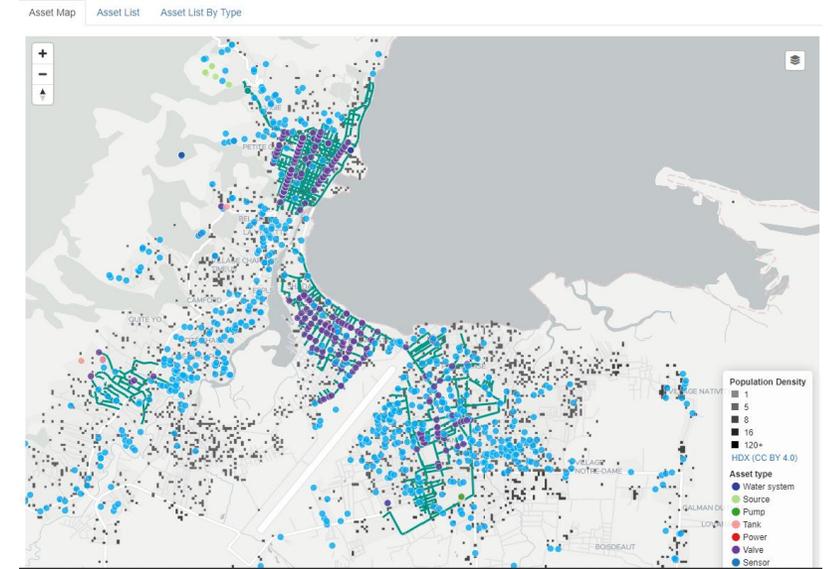
# Introduction to mWater ACHAP

16 August 2023



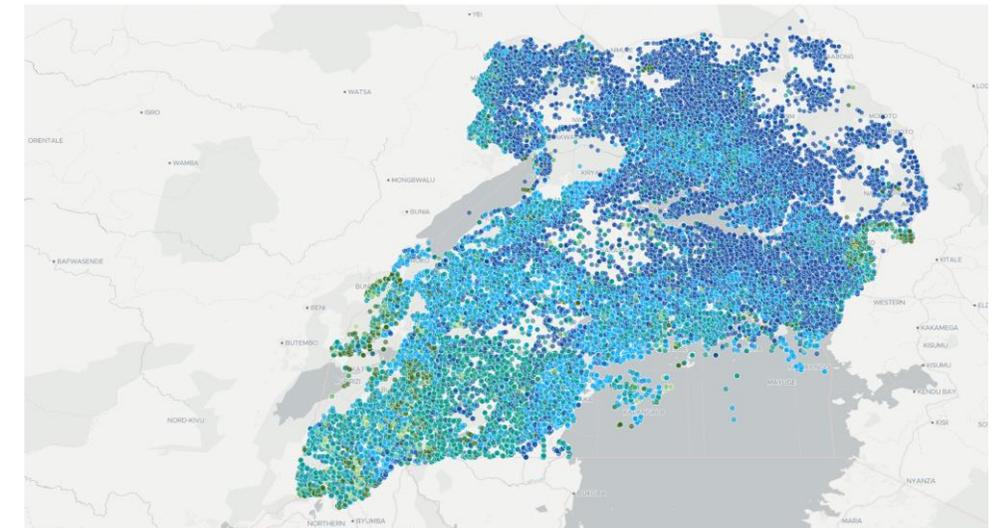
# mWater – What’s ahead

- Features for **water service providers**:  
Asset management, planning, accounting, customer relations, operations and maintenance
- **Government** collaboration, management information systems owned and operated by govt
- Template websites: For utilities, NGOs, programmes, etc  
“Custom Portal”
- AI features: Chatbot, data analysis, visualization
- Adjacent sectors: Sanitation features, energy, health, education, environment, agriculture -> **Solstice**

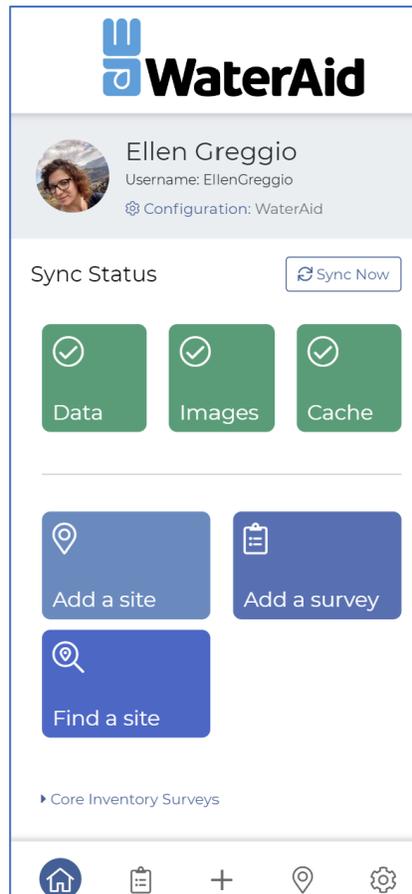


Uganda Real Time Water Supply Atlas in mWater

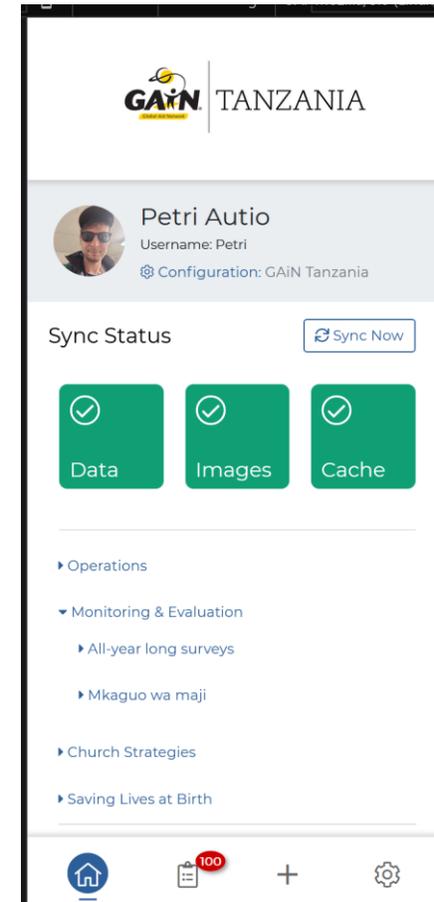
*This site is under development.*



# Custom App Configuration



WaterAid



Thematic focus

# mWater use in WaterAid: Quality Programme Standard

## Project, Programme, Strategy

Device Preview

### Introduction

Region\*

West Africa

Country\*

Ghana

Standard to assess \* ?

- Risk critical
- Minimum Standards
- Full quality programme standards

Levels \*

- Country Program
- Programme
- Project



### Quality programme standards

The quality programme standards can be used at every stage of the PMER cycle (see diagram). You can use the standards both during the design process and when reviewing plans. The most important time to refer to them is when you are developing programmes and projects. Another key opportunity is during programme performance reflection in quarter 3, which informs the annual update. This is a chance to reflect on how the standards are being applied in current programmes and projects, and how this can be strengthened.



#### 1. Risk-critical minimum standards

These standards are absolutely essential. Failing to meet them could endanger lives or seriously damage WaterAid's reputation.



#### 2. Minimum quality programme standards

We should design all WaterAid programmes to meet at least these minimum standards.

#### 3. Full quality programme standards

These are the standards we are working towards to improve the quality of our strategies, programmes and projects. They are derived from WaterAid frameworks, and divided into three levels (strategy, programme and project).

Strategy



Programme



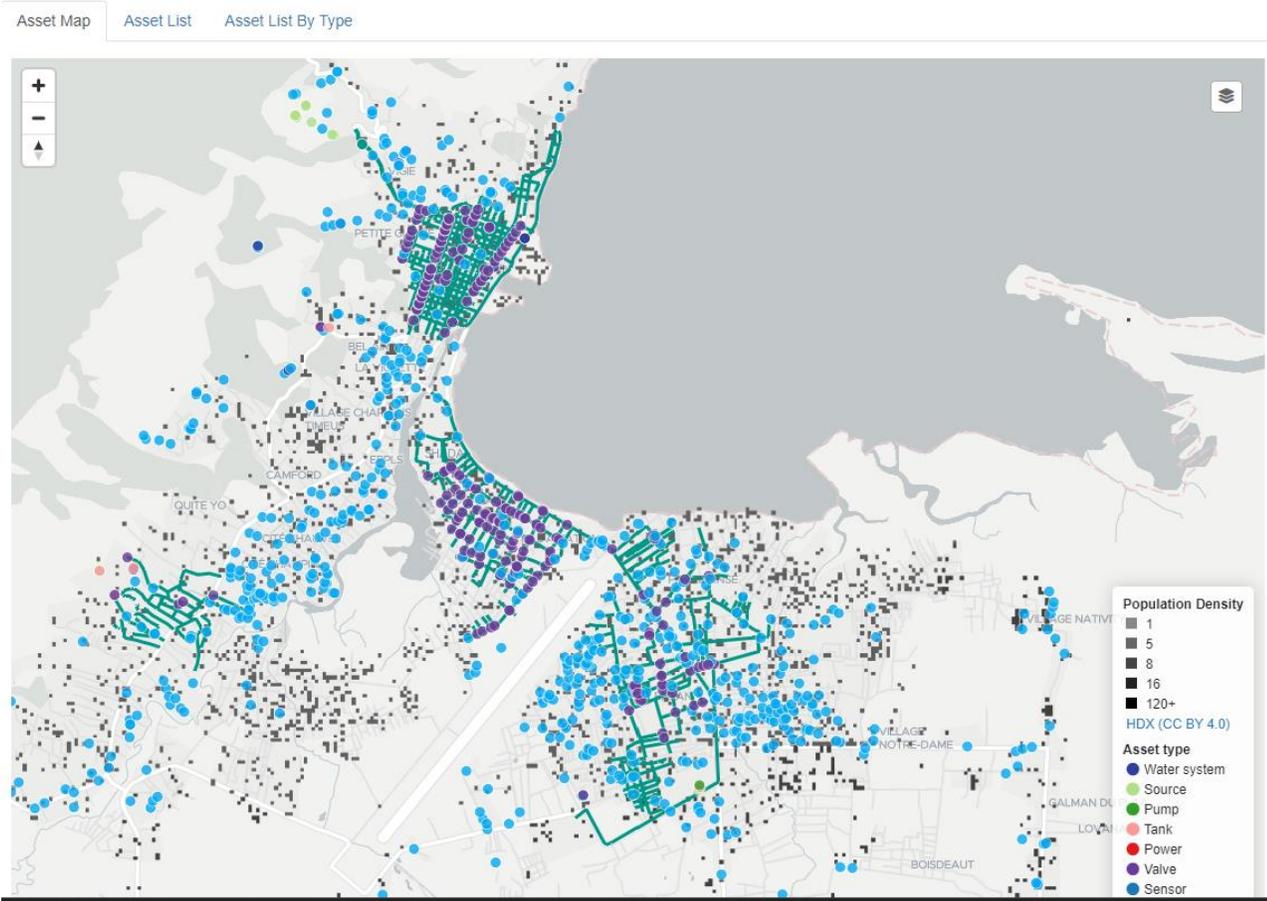
Project



# Mapping Assets on mWater



The mobile app interface shows the mWater logo at the top. Below it is the user profile for Petri Autio, with a profile picture, the name 'Petri Autio', 'Username: PA\_Dev', and 'Configuration: Standard User'. A 'Sync Status' section contains a 'Sync Now' button and three green status boxes for 'Data', 'Images', and 'Cache', each with a white checkmark. At the bottom, there are blue buttons for 'Sites' and 'Surveys'. The bottom navigation bar includes icons for home, notifications (with a red '26' badge), a plus sign, location, and settings.



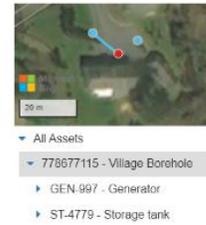
# Asset Management on mWater

- mWater has evolved from mapping water points and water systems to developing a **standard for asset mapping**

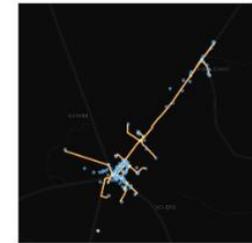
## [mWater Asset Standard Reference](#)

- Map of all components of a water system** from source to tap- stands and to create **flexible hierarchical child-parent relationships**

From individual boreholes to large utilities



Individual boreholes  
+Tanks, Power supplies,  
Pipes, Treatment units, etc



Rural Water  
Supply Systems



Large urban utilities

Asset classes:

System	Facility	Vertical	Horizontal	Natural
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Asset types:

Water system	Water facility	Source	Pump	Tank	Power	Pipe	Canal	Reservoir	River or stream
		Treatment	Meter	Electrical	Valve			Aquifer	Riparian zone
		Hydrant	Junction	Sampling point	Sensor			Infiltration zone	Forest
		Analyzer	Structure	Water point	Other			Wetland	Water-shed