



Participatory M&E for Local Projects sustainability



PGIS Mapping for Monitoring and Evaluation

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gLocal Evaluation Week

4th – 5th June, Dodoma, Tanzania



Outline

- Maps and Geospatial Data
- Geospatial/Spatial Data types
- Spatial Data Models
- Field Surveys/Mapping
- Mobile tools for field data collection
- Discussion and Reflections for Future M&E

Introduction to Map and Spatial Data in M&E

What is a Map ?

- Maps are efficient and effective ways to communicate evaluation information
- A map is a representation or abstraction of geographic reality.

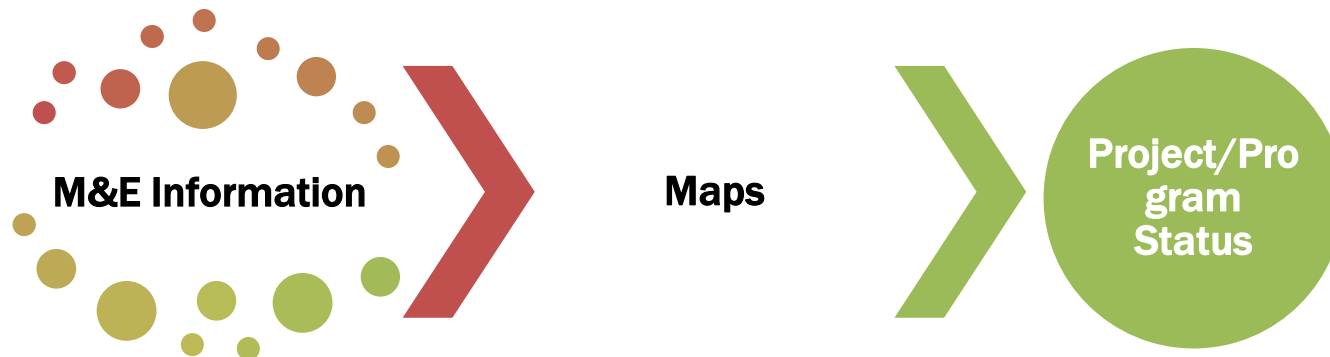
“A good map may say more than 1000 words



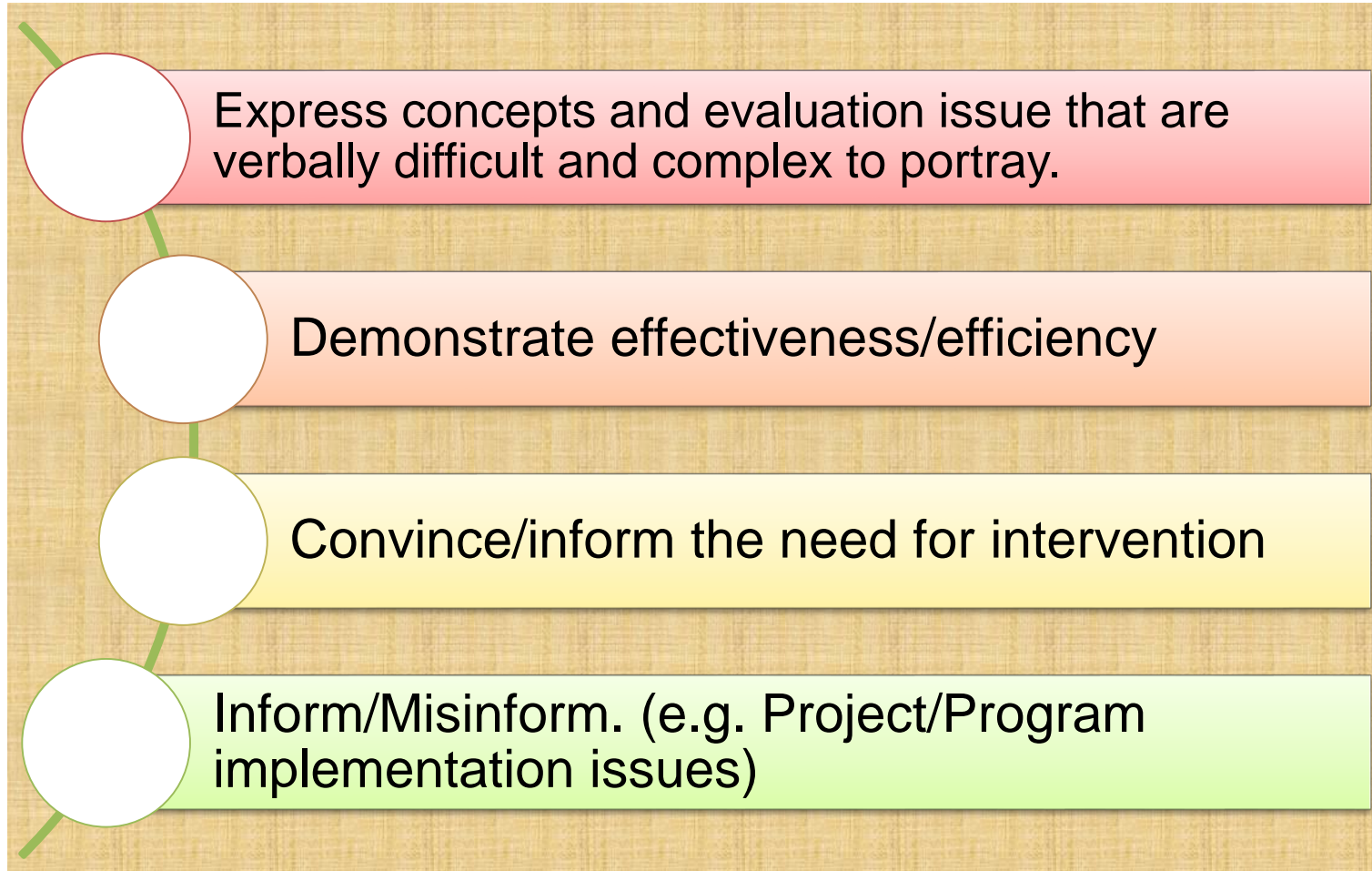
A tool for presenting geographically referenced evaluation information in a way that is visual, digital or tactile.”

Functions of a Map ?

- Maps provide answers (in graphical form) to questions related to the project or program implementation activities across the space
- Maps are using visual communication tools
- Maps therefore provides comprehensive evaluation answers to question such as
 - Where?.....(location/area of the project or program implementation)
 - What ?.....(M&E outcome)
 - When ?.....(M&E period)



- Presenting and Communicating



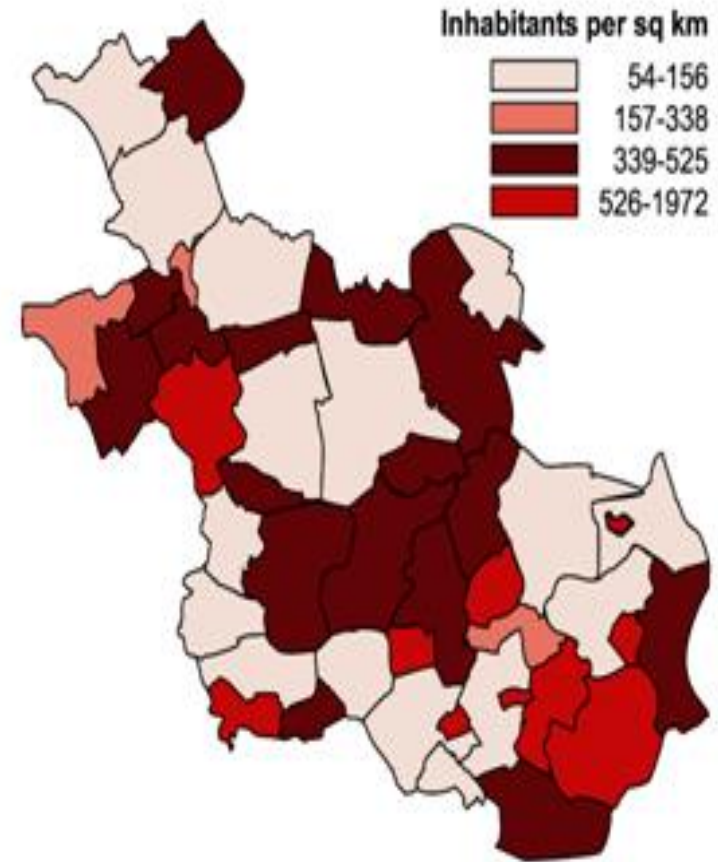
Map as Communication Tool in PGIS M&E

Introduction

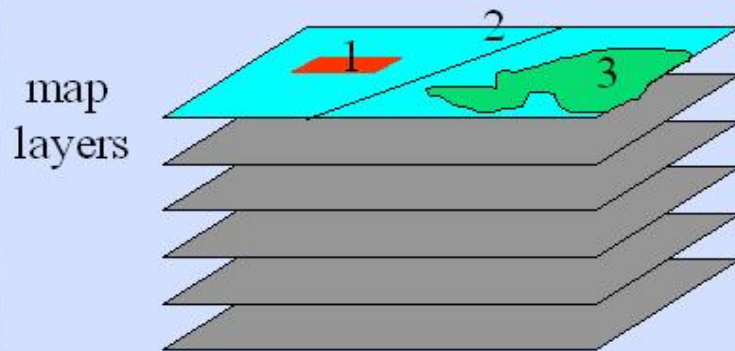
"A tedious spreadsheet showing wards with no access to safe drinking water does not hold the same comprehensible clarity as the same data when converted to a map, and the patterns that emerge from visual representations can support quick decision making"

Maps aid communication by presenting data in a visual non-numerical form that caters the visual sensors as opposed to only the analytical/numerical

"The information must be presented in a format that can be understood by others and stored in a way that others can retrieve it"

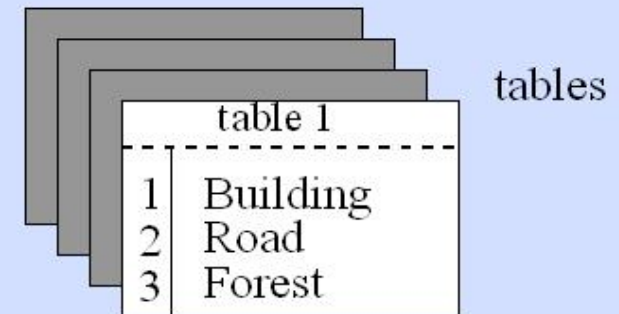


Locational data



Where is it ?

Descriptive data



What is it ?

PGIS M&E Geospatial Data Acquisition

Introduction



GPS / Mobile



Aerial surveys, Drone and satellite remote sensing



Field surveys/ Mapping

	A	B	C	D	E
1	POINT	NORTHING	EASTINGS	DESCRIPTION	
2	1	9243274	530872	BOUNDARY POINT	
3	2	9243246	530958	WATER VENDOR CENTER	
4	3	9243554	530754	WATER FEDERATION	
5	4	9243449	530797	WATER FEDERATION	
6	5	9243624	530690	SHALLOW WELL	
7	6	9243611	530689	SHALLOW WELL	
8	7	9243572	530698	PRIVATE FOOT PATH	
9	8	9243246	530956	MUGURANI TO DUCE ROAD	
10	9	9243708	530996	MACHUNGWA	
11	10	9243419	531013	DIP WELL	
12	11	9243647	530695	PRIVATE BRIDGE	
13	12	9243570	530666	PRIVATE BRIDGE	
14	13	9243415	530726	PRIVATE BRIDGE	
15	14	9243371	530759	ECOLOGICAL SANITATION	

**GPS/Mobile Field survey
(Vector Data)**



**Aerial photographs/Satellite/Drone
images(Raster Data)**

PGIS M&E Spatial Data Types

❖ Types of spatial objects

▪ Point

- A point has neither length nor breadth nor depth, and hence is said to be of dimension 0.
- Points may be used to indicate spatial occurrences or events being Evaluated, and their spatial patterning.

▪ Lines

- Lines have length, but not breadth or depth, and hence are of dimension 1.
- They are used to represent linear entities in Evaluation.

PGIS M&E Spatial Data Types

❖ Types of spatial objects

▪ **Polygon (Area)**

- Area objects have the two dimensions of length and breadth, but not depth.
- They may be used to represent spatial coverage of the implemented Project /evaluation area.
- Spatial Coverage of the Project effectiveness

▪ **Volume**

- Volume objects have length, breadth, and depth, and hence are of three dimensions.

PGIS M&E Spatial Data Types

❖ Time

Time is often considered to be the fourth dimension of spatial objects

Mapping project/Program Implementation Outcome over temporal dimension

Spatial data models

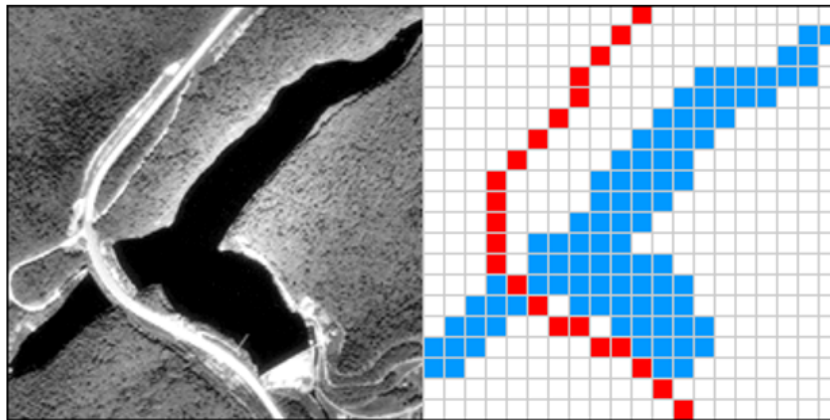
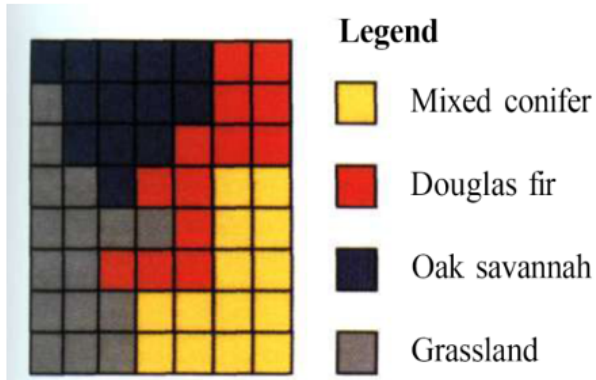
What is spatial data models?:

Is a structure for organizing geospatial data so that it can be easily stored and retrieved.

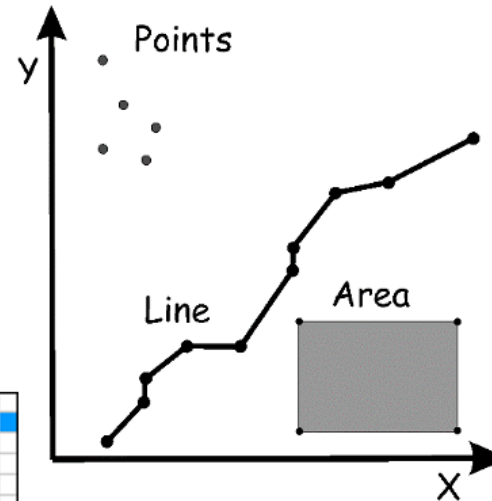
- In developing a GIS application, real-world features need to be translated into simplified representations that can be stored and manipulated in a computer.
- Two data models:
 - **Vector** data model
 - **Raster** data model

Spatial data models

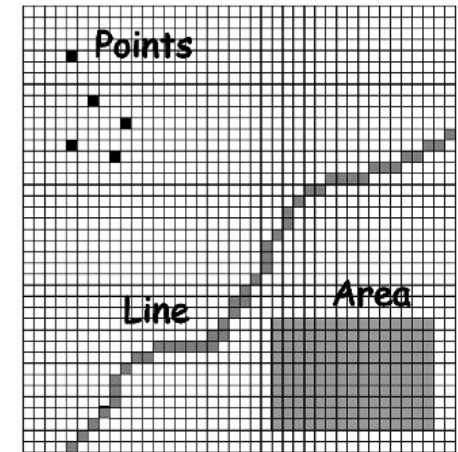
❖ Raster data model



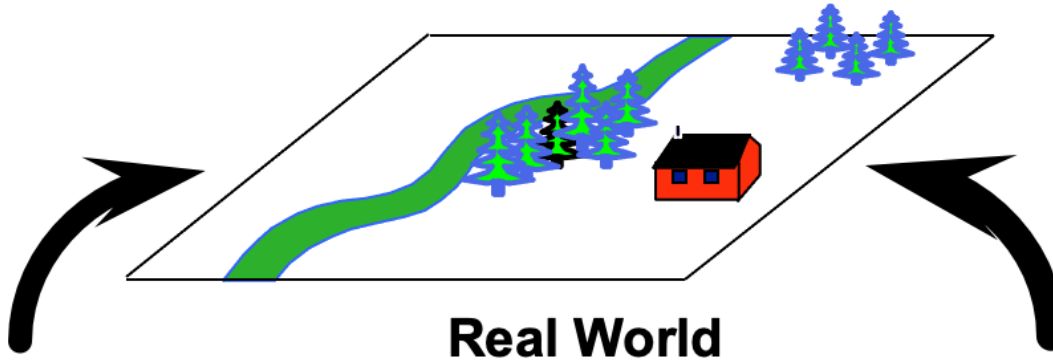
Vector



Raster

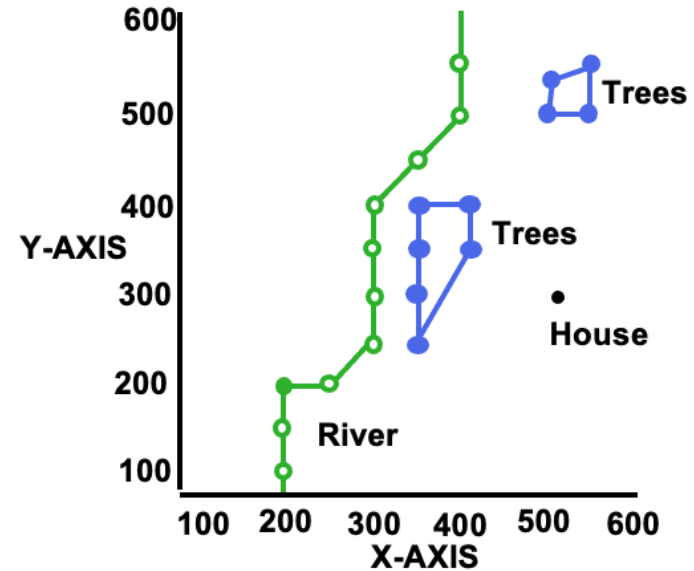


Raster and Vector Data Models



	1	2	3	4	5	6	7	8	9	10
1							B			G
2							B		G	G
3						B				
4				B	G	G				
5				B	G	G				
6				B	G			BK		
7				B	G					
8		B	B							
9		B								
10		B								

Raster Representation



Vector Representation

Source: Defense Mapping School
National Imagery and Mapping Agency

PGIS M&E Field Surveys/Mapping

- Field mapping is a survey technique to capture the details of one's physical surroundings.
- The goal is to examine and record and report an area's project/program implementation outcome so as to create a map
- Directly observation of the project effectiveness ensuring its accuracy.
- Depending on the program/project goal and indicators consider the following:
 1. **Decide what data you plan to collect**
 2. **Define the area for your field mapping depending on stakeholders/community members involved**
 3. **Prepare materials for the field: reference map, GPS or mobile phone and mobile data collection tools, notepad and pen.**
 4. **Go to the target area and collect the data you need using mobile data collection technique/tools.**

What is mobile data collection?



Design your form using an online form builder



Collect information using your Android phone



Analyze and map your data faster

Mobile Data Collection

Paper less

Efficient

Secure

Reliable



- **Online**

- Collect and store data instantly into one centralized database



- **Offline**

- Users can access forms while out of office in the field.

- Data collected is synchronized later when connected to the internet.



- **Web Based**

- Access forms using your web browser.



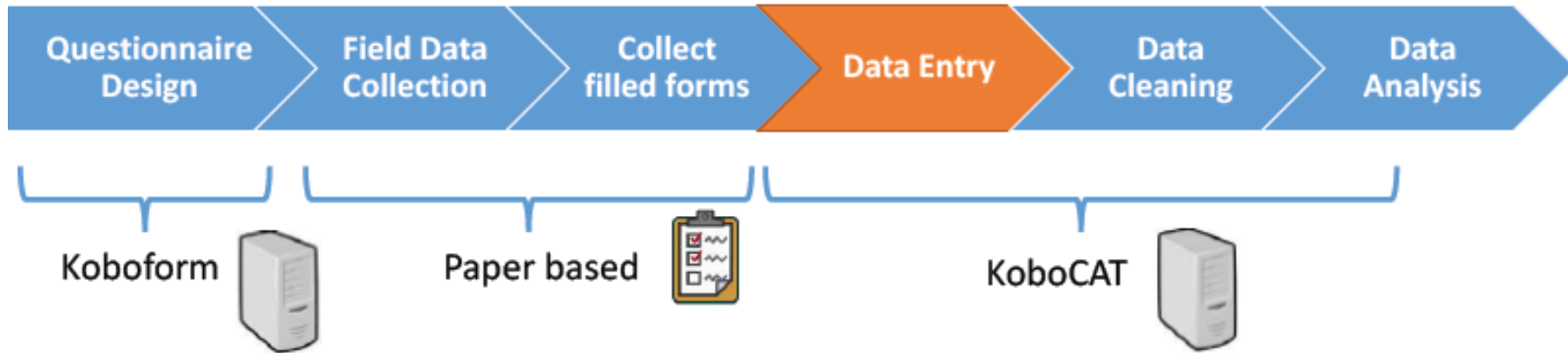
- **Mobile Based**

- Use KoBo Collect tool to collect data while out in the field using your mobile phone.

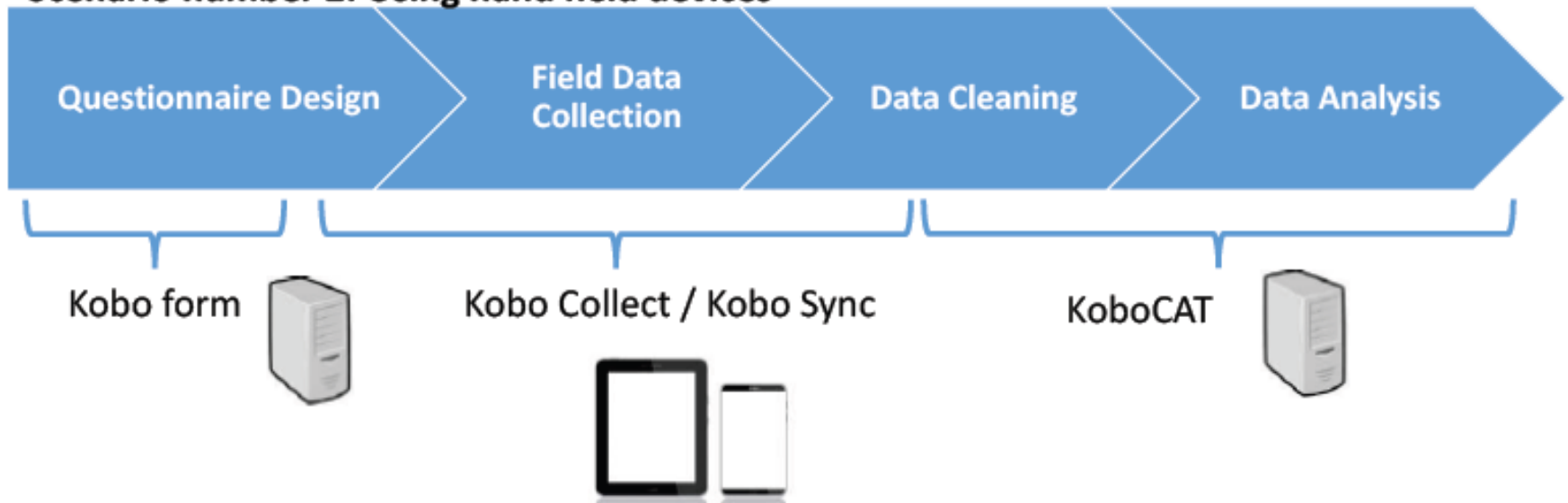
Web based PGISE approach can reach people widely and facilitates participation

Mobile Data Collection

Most Common scenario – Using paper based questionnaire form



Scenario number 2: Using hand held devices



PGISE Mobile Data Collection Tools/Platforms

**Open Data Kit
(ODK) Collect**

is a free an open-source set of tools which help organizations author, field, and manage mobile data collection solutions

OpenMapKit

Is an extension that launches directly from within ODK Collect when the OSM question type is enabled in a standard survey

KoBoCollect

is in almost all ways similar to ODK Collect, and is built on top of the ODK platform.

Introduction to ODK

Part 1: The Basics

What is ODK? (Open Data Kit)

- ODK is a system for **facilitating easier collection of data** using mobile devices such as tablets and smartphones
- ODK is designed for use with mobile devices which run on **Android** operating systems. It will work with Apple and Microsoft devices, but it is optimized for Android.
- It is **open source** and therefore freely distributed
- It helps to ease the process of moving from a paper survey to **quicker and larger amounts of data collection** with a mobile device

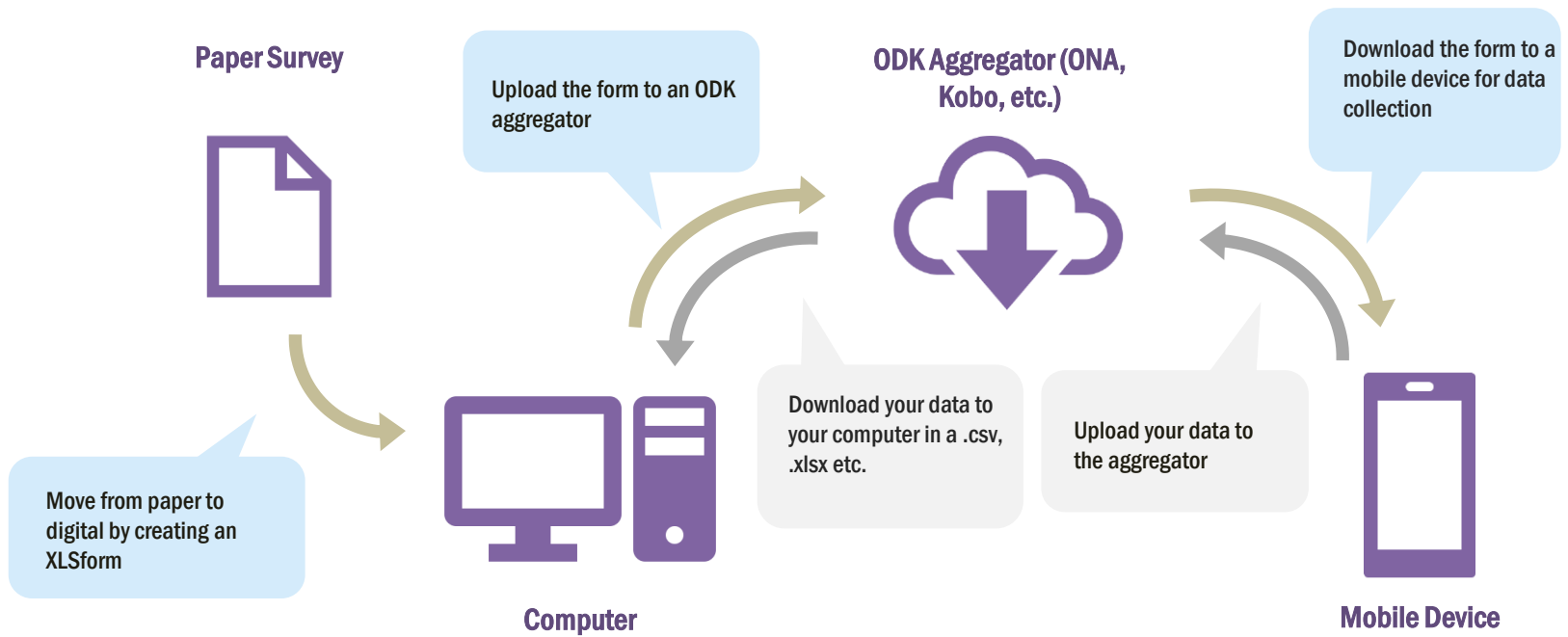
Why Use ODK?

- ODK allows for **built-in checks and skip patterns**, meaning they do not have to be done manually by an enumerator. This **increases the quality of the data** collected
- Able to **monitor the progress remotely**, able to make adjustments even once data collection has begun
- **Improved use of time and costs**. Especially with no need for time-consuming data entry

Key Words

- **ODK Aggregator:** The server application which is capable of storing and analysing data. This is where your data is uploaded to from a mobile device and where it can be downloaded from onto your computer. There are many different aggregators. They each have their own advantages and features and the choice of which one to use will depend on the needs of your project.
- **XLSform:** A standardised styling format for producing survey forms in Excel which can be uploaded online for data collection using electronic/mobile devices
- **KoboToolbox/ONA:** two of the leading ODK Aggregators. This set of tutorials will focus on using KoboToolbox.
- **ODK Collect:** A data collection app which can be used on mobile devices to download forms from your project, collect data from respondents and then upload that data back to the server.

What is ODK?



ODK Aggregators

- There are many ODK aggregators out there. Each has their own advantages and disadvantages.
- Ultimately the choice of aggregator is yours, so ensure you make an informed decision to choose the aggregator which best suits your project
- Choices include:
 - **KoboToolBox** – we shall be using this aggregator during this series
 - **ONA** – much of the same functionality as Kobo with additional features depending on level of service purchased
 - **ODK Aggregate** – open source version direct from ODK developers
 - **Formhub** – another open source data collection service

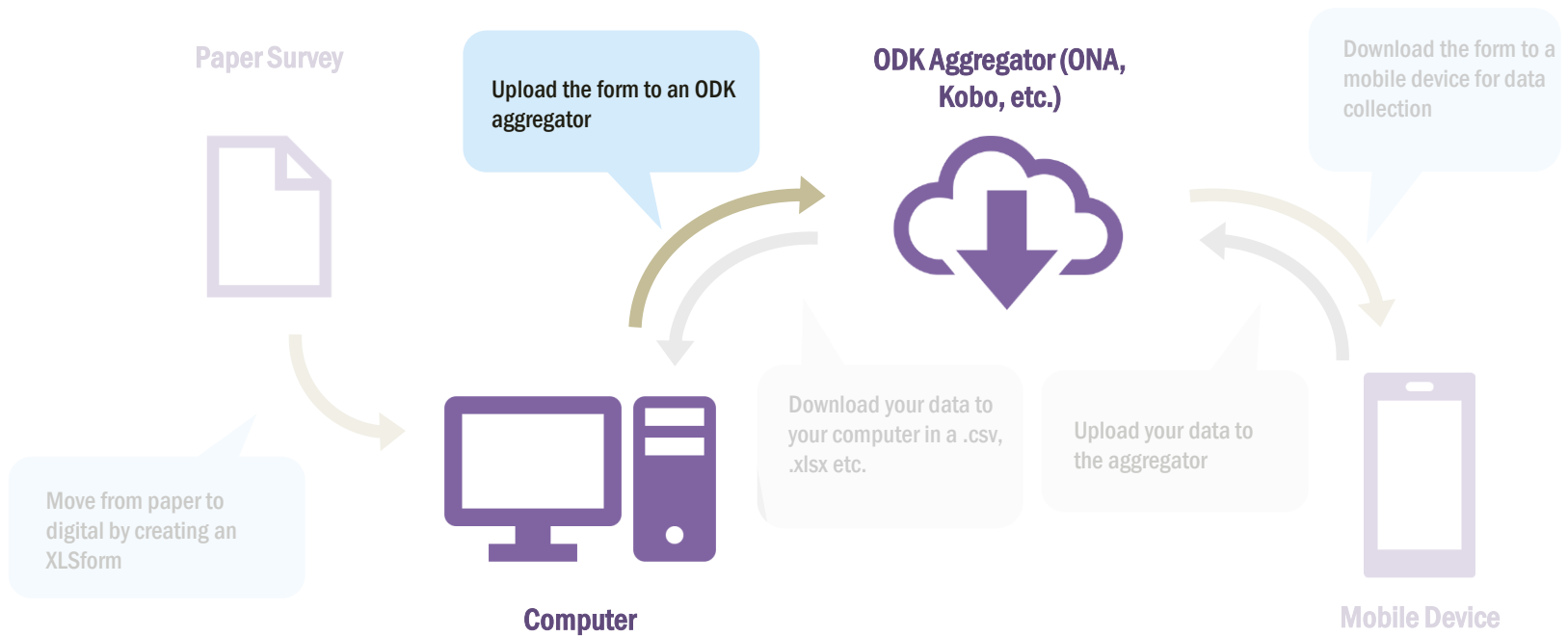
Introduction to ODK

Part 2: ODK Aggregators

Contents

- **ODK Aggregators**
- **Creating an account with Kobo**
- **Uploading a form to Kobo**
- **Settings**

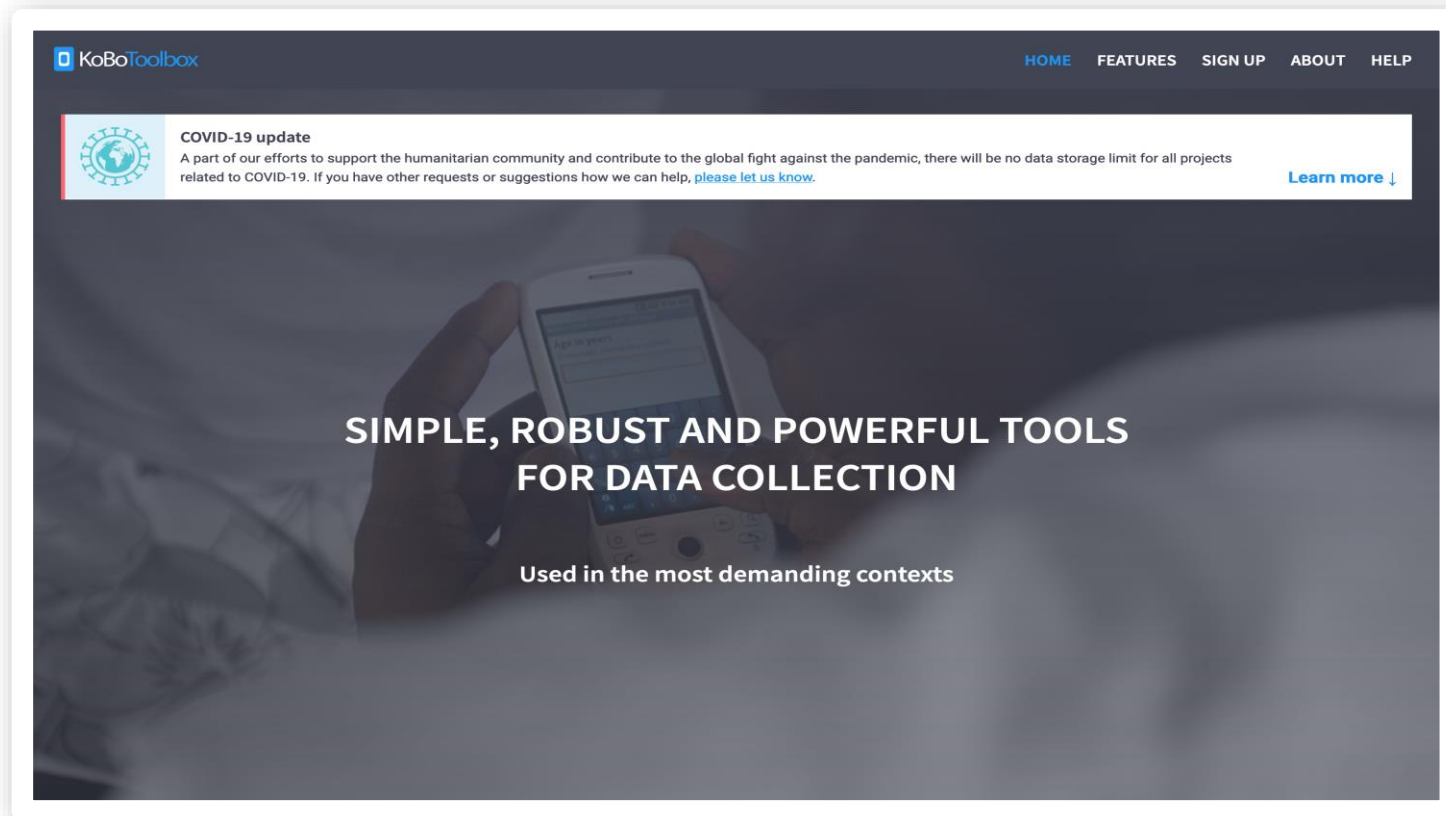
ODK Process Steps



ODK Aggregators

- **ODK Aggregators are the servers which will store your forms and data.**
- **The usual process is that you upload your form and create a project, then**
 - **Download forms from this server to mobile devices for data collection;**
 - **Upload your data to the server and monitor submissions;**
 - **Download your data.**
- **As mentioned in Part 1, there are a number of aggregators including Kobo, ONA and Formhub.**
- **This part focuses on Kobo, but many of the principles are transferrable and most servers operate in similar ways.**

Creating an Account with Kobo



Visit <https://kobotoolbox.org>

Creating an Account with Kobo

Global KoboToolbox Server

Most people use our global KoboToolbox server. Get started with a free account today.

Create an account

Sign in

European Union KoboToolbox Server

The European Union-based server is hosted in Ireland. This server is used by organizations that require or prefer data hosting in the European Union. Get started with a free account today.

*Until 1 September 2023, this server was called the Humanitarian Server.

[Read more](#)

Create an account

Sign in

Visit <https://kobotoolbox.org>

Create Username

Create Password

Be sure to remember these as these are needed to connect to the server and download forms.

You can optionally provide information about your organisation and the sector in which you work.

Creating an Account with Kobo

Creating and account in European Humanitarian Server

Create an account

KoboToolbox

European Union Server

High quality data collection tools for social impact organizations working in challenging environments.

This EU-based server is used by organizations that prefer data hosting in the European Union. For all other users, please create an account on our default [global server](#).

Get started by creating a free account on our Community Plan, which includes unlimited projects, unlimited data collectors and collaborators, 5,000 submissions per month, and 1GB of file storage.

For more data collection, file storage, and features, get in touch to [upgrade your plan](#).

*Until 1 September 2023, this server was called the Humanitarian Server and was used solely by humanitarian organizations. On 1 September 2023, server ownership was transferred from UN OCHA to Kobo, the nonprofit organization behind KoboToolbox. [Read more...](#)

Full name * Organization *

Username *

E-mail *

Sector * Country *

Password *

Password strength

Use a few words, avoid common phrases
No need for symbols, digits, or uppercase letters

Password confirmation *

Kobo Account after Activation

The screenshot shows the KoboToolbox interface. At the top left is the KoboToolbox logo. To its right is a search bar with the text "Search...". In the top right corner, there is a circular profile icon with the letter "D".

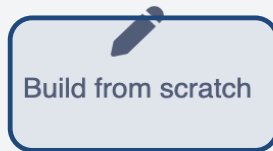
On the left side, there is a vertical navigation menu with three items: "Deployed" with a count of 0, "Draft" with a count of 0, and "Archived" with a count of 0. Above this menu is a prominent blue button labeled "NEW".

The main content area is titled "My Projects". It includes a "filter" icon and a "fields" icon. To the right of these are icons for a folder, a person with a plus sign, and a trash can. Below the title is a table header with the following columns: "Project name", "Status", "Owner", "Date modified", "Date deployed", and "Submissi...". A search input field with the placeholder text "Project name" is positioned above the table. The table body is empty, and a message "There are no projects to display." is centered below the header.

Click on New to Create a New Project Window

Create project: Choose a source 

Choose one of the options below to continue. You will be prompted to enter name and other details in further steps.



**Click on Create from
Scratch**

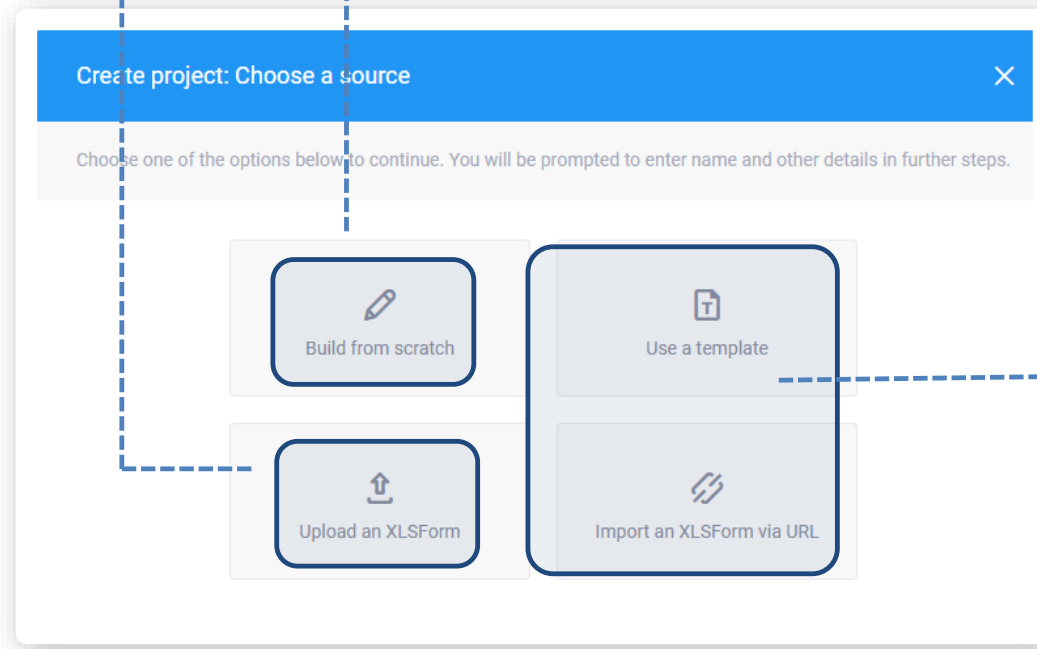
Creating a Form to Kobo

You can first create your form in Excel and then **upload** it to Kobo by using the “Upload an XLSForm” link

Make sure your form is saved as either an **.xls** or **.xlsx** spreadsheet if you are uploading the form.

Or you can use the dedicated “**Form builder**” tool which we are going to be using in today’s exercise

Alternatively, you can use a template form or upload your XLSForm via a URL



Creating Project-Provide Project Detail

Create project: Project details



Project name (required)

Enter title of project here

Description

Enter short description here

Sector (required)

Select...



Country (required)

Select...



BAKE

CREATE PROJECT

Creating a Form – Provide Project Detail

Create project: Project details



Project name (required)

PGIS Water Evaluation

Description

Evaluation of Water Supply

Sector (required)

Humanitarian - Sanitation, Wat...

Country (required)

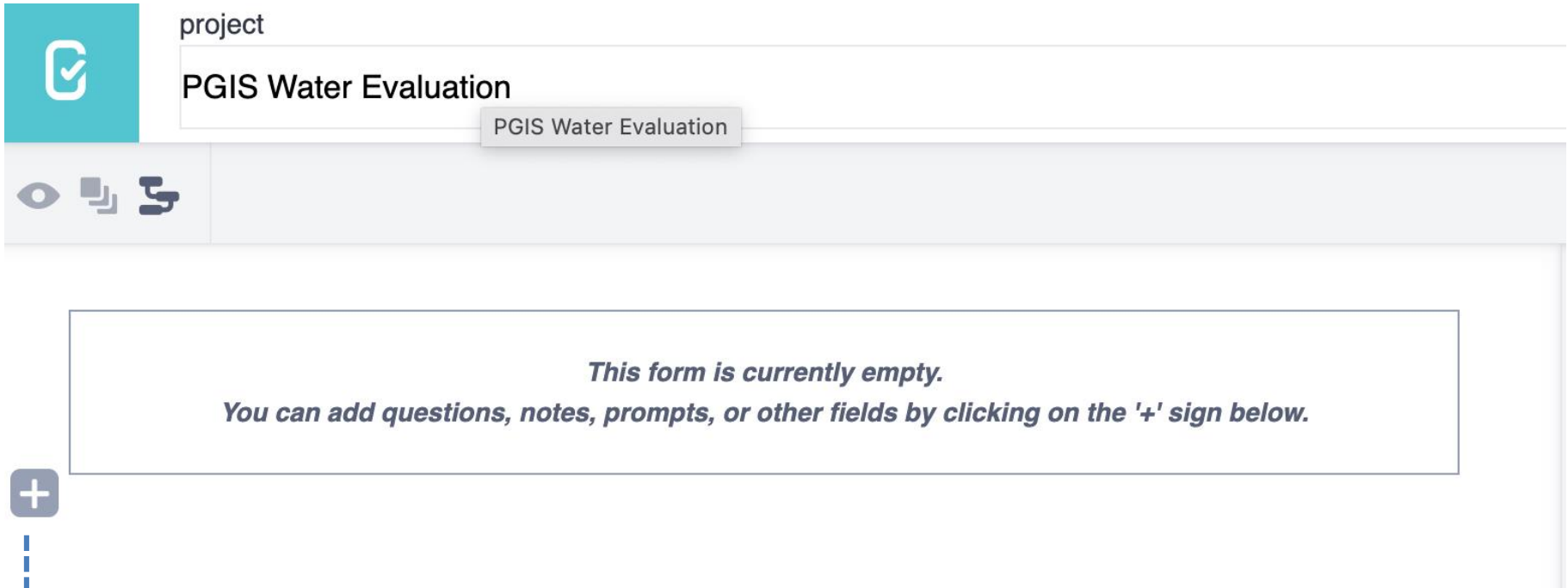
Tanzania, United Republic of

BAKE

CREATE PROJECT

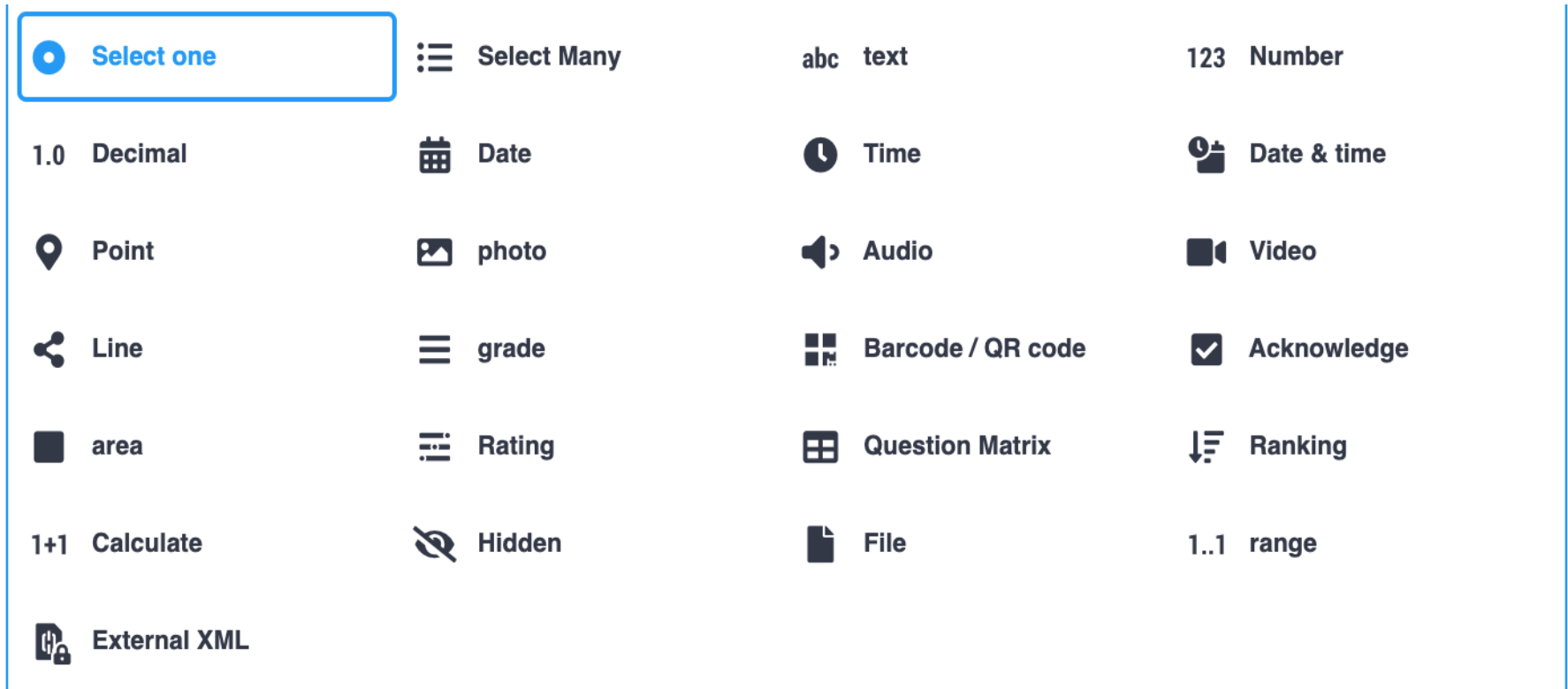
Info

Creating a form to Kobo



Click on the + sign to select type of question that you need/ to add a question

Creating a form to Kobo-Add Questions



Any other type of questions can be found on the form depending on the need of your project/program

Form Creation - Save

- After Adding ALL questions,, Click on Save...to save

The screenshot shows a form creation interface. At the top left, there is a teal square with a white checkmark icon. To its right, the text 'project' is above a text input field containing 'PGIS Water Evaluation'. In the top right corner, there is a blue rounded rectangle with the word 'SAVE' in white and a small 'X' icon to its right. Below the header, there is a toolbar with icons for eye, list, copy, and paste. To the right of the toolbar are two buttons: 'Add from Library' and 'Layout & Settings'. The main area contains a list of questions, each with a small 'abc' icon on the left and a 'Question hint' on the right. The questions are: 1. A question with a location pin icon and the text 'To provide us with your current location please click on the location button'. 2. A question with a dropdown arrow icon and the text 'How did you first learn about the water project in your community?'. Below the second question, there are three radio button options: 'Community Meetings', 'Posgter or Flyer', and 'Local News Channels'. To the right of these options, there are three 'XML value:' labels with corresponding values: 'community_meetings', 'posgter_or_flyer', and 'local_news_channels'. Each question row has a vertical toolbar on the right with icons for settings, delete, copy, and paste.

Question ID	Question Text	XML Value
abc	Question hint	
abc	Ward Name Question hint	
	To provide us with your current location please click on the location button Question hint	
	How did you first learn about the water project in your community? Question hint	
	Community Meetings	community_meetings
	Posgter or Flyer	posgter_or_flyer
	Local News Channels	local_news_channels















Form Creation – Close the window

- After Saving.. then CLOSE

project
PGIS Water Evaluation

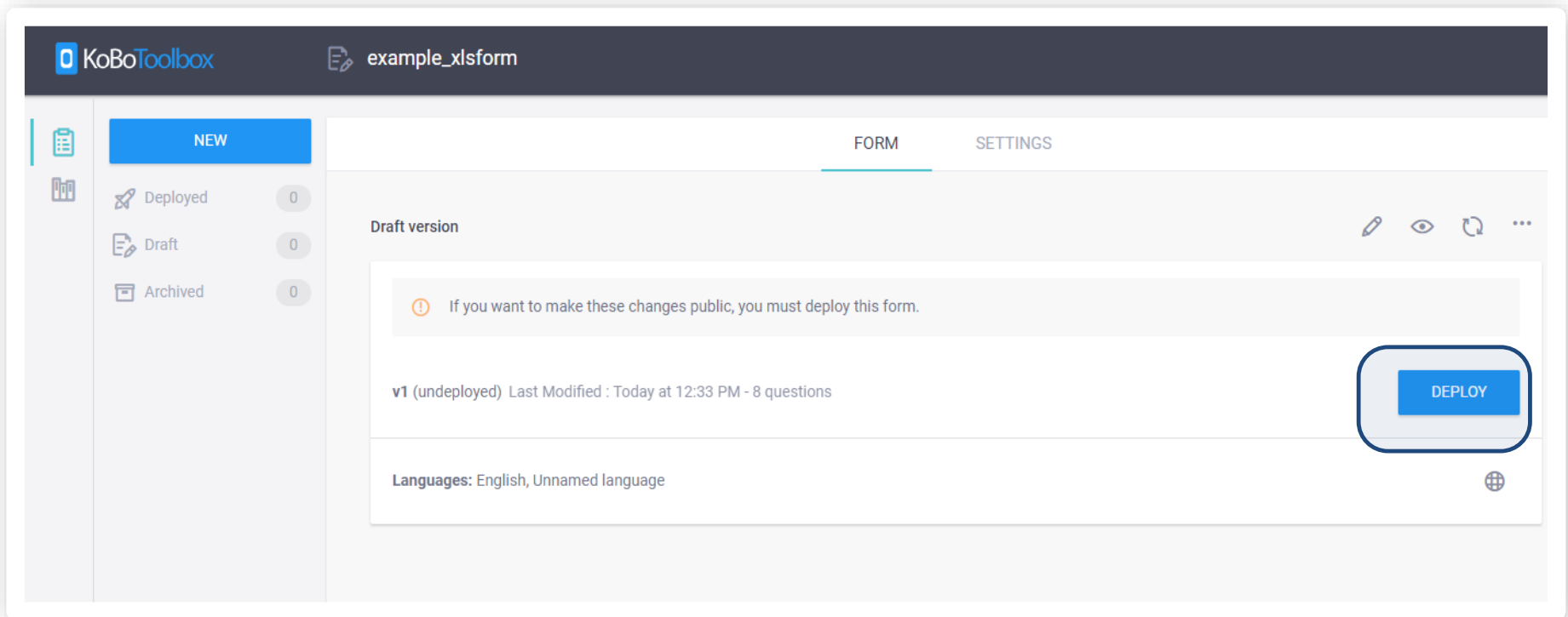
SAVE X

Add from Library Layout & Settings

abc	Please Provide Feedback On the Water Supply Project <i>Question hint</i>	  
abc	Ward Name <i>Question hint</i>	  
	To provide us with your current location please click on the location button <i>Question hint</i>	  
	How did you first learn about the water project in your community? <i>Question hint</i>	  

Deploying a Form to Kobo

- Once you have completed and saved your form, you can post it to the server it by pressing “Deploy”. Once you have done this, you can download your form to a mobile device.
- If you are using other aggregators, some will deploy them automatically.



Editing a Form in Kobo

- After Deploying you can edit your form to add more questions or delete
- Then Save and close

The screenshot shows the Kobo form editor interface. At the top, there is a teal header with a checkmark icon and the text 'project PGIS Water Evaluation'. To the right of this header is a blue 'SAVE' button with a close 'X' icon. Below the header is a toolbar with icons for eye, list, copy, and paste. To the right of the toolbar are two buttons: 'Add from Library' and 'Layout & Settings'. The main area displays a list of four questions, each with a small icon on the left and a vertical toolbar of icons on the right. The questions are:

abc	Please Provide Feedback On the Water Supply Project <i>Question hint</i>	
abc	Ward Name <i>Question hint</i>	
	To provide us with your current location please click on the location button <i>Question hint</i>	
	How did you first learn about the water project in your community? <i>Question hint</i>	

Click on Deployed to View the Uploaded Form

- View the deployed form then click on collect data

The screenshot shows the KoboToolbox interface for a project named "PGIS Water Evaluation". The top navigation bar includes the KoboToolbox logo, the project name, and "4 submissions". Below the navigation bar are tabs for "SUMMARY", "SHAPE", "DATA", and "SETTINGS".

On the left sidebar, there is a "NEW" button and a list of project statuses: "Deployed" (1), "Draft" (0), and "Archived" (0). The "Deployed" status is highlighted with a blue box.

The main content area shows "Project information" with a description: "Evaluation of Water Supply". Below this is a table with the following data:

status	Questions	Owner
deployed	5	me

On the right sidebar, there is a "Quick links" section with four buttons: "Collect data", "Share project", "Edit form", and "Preview form". The "Collect data" button is highlighted with a blue box.

Collect data

Collect data

Online-Offline (multiple submission) ▼

- **Select the data collection mode**

Online-Offline (multiple submission)

This allows online and offline submissions and is the best option for collecting data in the field.

Online only (multiple submissions)

This is the best option when entering many records at once on a computer, eg for transcribing paper records.

Online only (single submission)

This allows a single submission, and can be paired with the "return_url" parameter to redirect the user to a URL of your choice after the form has been submitted.

Online only (once per respondent)

This allows your web form to only be submitted once per user, using basic protection to prevent the same user (on the same browser & device) from submitting more than once.

Embeddable web form code

Use this html5 code snippet to integrate your form on your own website using smaller margins.

Collect data

- After select the data collection mode, then copy the link and share to Stakeholders and community members involved

Collect data

Online only (single submission) ▼

COPY

OPEN

<https://ee-eu.kobotoolbox.org/single/KJh1ncsj>

Generated Form in Kobo

PGIS Water Evaluation

Please provide us feedback on the water project

- Use the form for data collection

Which village or community do you belong to

- Village A
- Village B
- Village C

- Click on the location symbol to capture the specific location

To provide us with your current location please click on the location button

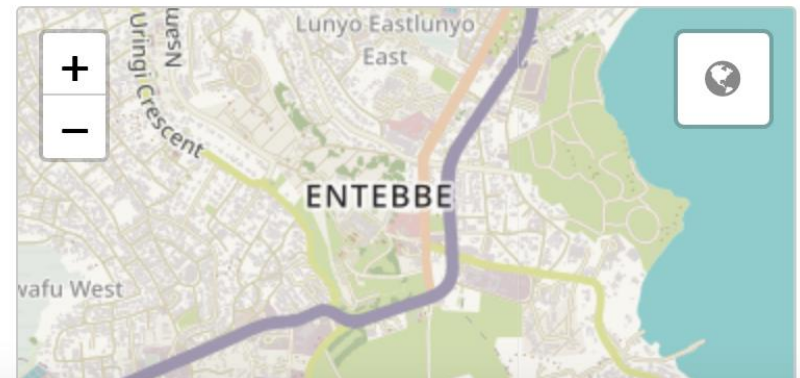
latitude (x.y °)

longitude (x.y °)

altitude (m)

accuracy (m)

search for place or address



Data Collection Kobo

Please provide us feedback on the water project

water supply

Which village or community do you belong to

- Village A
- Village B
- Village C

To provide us with your current location please click on the location button

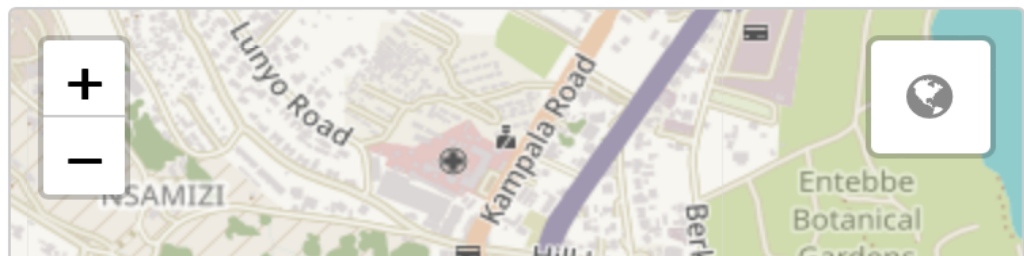
latitude (x.y °)

0.060704

longitude (x.y °)

32.472333


search for place or address




Data Collection in Kobo

altitude (m)

accuracy (m)





© OpenStreetMap & Yohan Boniface & Humanitarian OpenStreetMap Team | [Terms](#)

How did you first learn about the water project in your community?

- Community meetings
- Flyers or posters
- Word of mouth

- Use the form for data collection and submit

 Save Draft



✓ Submit

Visualize the Collected Data -Table

- Click on Data
- Visualize the collected tabular data in Kobo

The screenshot shows the KoboToolbox interface for a project named "PGIS Water Evaluation". The top navigation bar includes the KoboToolbox logo, the project name, and "4 submissions". Below the navigation bar, there are tabs for "SUMMARY", "SHAPE", "DATA", and "SETTINGS". The "DATA" tab is currently selected and highlighted with a blue border. On the left side, there is a sidebar with a "NEW" button and several categories: "Deployed" (1), "Draft" (0), and "Archived" (0). Under "Deployed", the "PGIS Water Evaluation" project is listed. Below the sidebar, there are icons for "Table", "Reports", "Gallery", "Downloads", and "Map". The main content area displays a table of data with the following columns: "Validation", "begin", "end", "Please Provide Feedback On t...", and "Ward name". The table shows 4 results, with the first row having a "Validation" of "Show all" and a "Ward name" of "Entered cbd". The other three rows have a "Validation" of "—" and "Ward name" of "Kawe".

1 - 4 4 results	Validation	begin	end	Please Provide Feedback On t...	Ward name
<input type="checkbox"/>	Show all	Search	Search	Search	Search
<input type="checkbox"/>	—	Nov 28, 2023 ...	Nov 28, 2023 ...	Water supply	Entered cbd
<input type="checkbox"/>	—	Nov 28, 2023 ...	Nov 28, 2023 ...		Kawe
<input type="checkbox"/>	—	Nov 28, 2023 ...	Nov 28, 2023 ...		Bunju
<input type="checkbox"/>	—	Nov 28, 2023 ...	Nov 28, 2023 ...		Kawe

Visualize the Collected Data – Map

- Visualize the collected data in a map
- Click on Map

The screenshot displays the KoboToolbox interface for a project titled "PGIS Water Evaluation". The top navigation bar includes tabs for "SUMMARY", "SHAPE", "DATA", and "SETTING", with "DATA" currently selected. On the left sidebar, a "NEW" button is visible above a list of project states: "Deployed" (1), "Draft" (0), and "Archived" (0). The "Map" option is highlighted in a rounded rectangle. The main content area shows a "Table" view with a "hide fields" icon and a table displaying 4 results. The table has columns for "Validation", "begin", and "end", with search filters and a "Show all" dropdown. The data rows show a date of "Nov 28, 2023 ..." for the "begin" and "end" columns.

1 - 4 4 results	Validation	begin	end
<input type="checkbox"/>	Show all	Search	Search
<input type="checkbox"/>	–	Nov 28, 2023 ...	Nov 28, 2023 ...
<input type="checkbox"/>	–	Nov 28, 2023 ...	Nov 28, 2023 ...
<input type="checkbox"/>	–	Nov 28, 2023 ...	Nov 28, 2023 ...
<input type="checkbox"/>	–	Nov 28, 2023 ...	Nov 28, 2023 ...

Monitoring Data

 Reports





















 Table

 Gallery

 Downloads

 Map

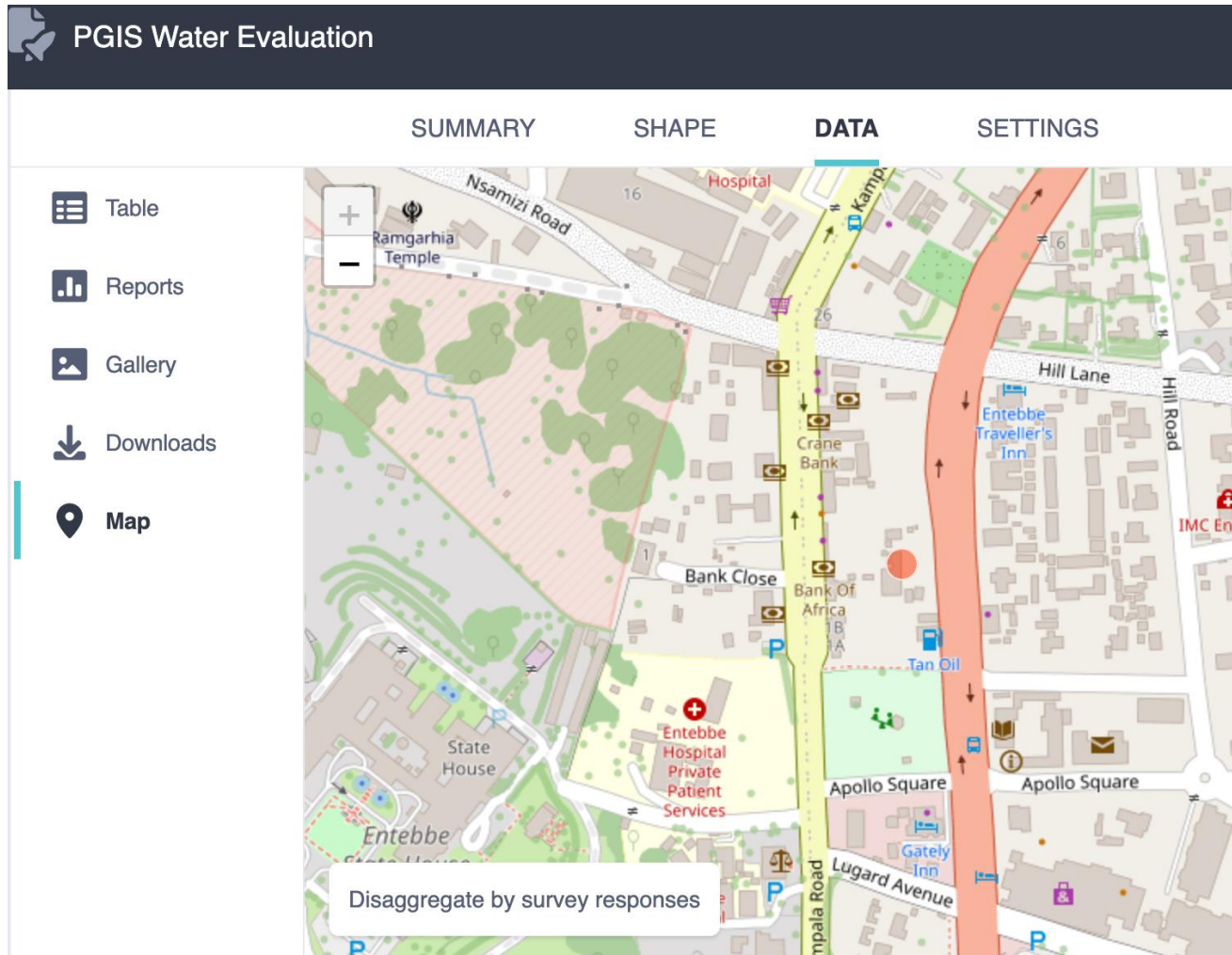
1 - 11 of 11 results

<input type="checkbox"/>		Validation status	start
		Show All	
<input type="checkbox"/>	 	–	December
<input type="checkbox"/>	 	–	December
<input type="checkbox"/>	 	–	December
<input type="checkbox"/>	 	–	December
<input type="checkbox"/>	 	–	December
<input type="checkbox"/>	 	–	December
<input type="checkbox"/>	 	–	December
<input type="checkbox"/>	 	–	December
<input type="checkbox"/>	 	–	December
<input type="checkbox"/>	 	–	December

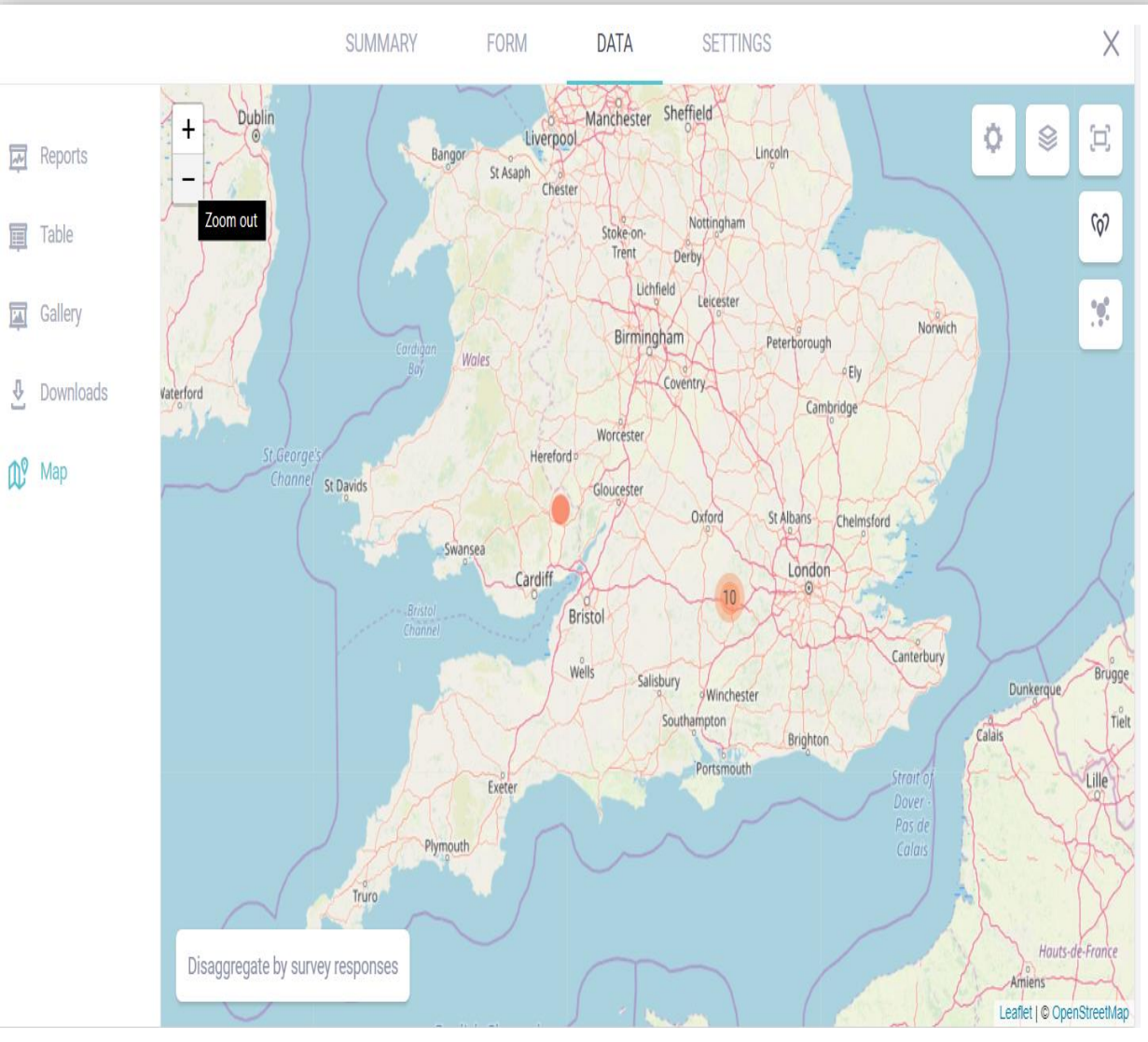
From this menu, you can also browse your data in the **table** tab. You can check through your entries for any unusual looking responses/incomplete entries.

Visualize Collected the Data – Map

- Visualize the collected data in a map



Monitoring Data



On the **map page** you can see the **GPS locations** of data submissions/GPS readings for variables.

This is especially useful when data is being collected remotely from your location.

You can check that data is being collected in locations you would expect and not in strange locations far away from data collection sites

Downloading Collected Data

The screenshot displays the KoBoToolbox interface for a project titled "SSD Introduction to ODK". The top navigation bar includes the KoBoToolbox logo, the project name, and a notification for "11 submissions". The main content area is divided into several sections:

- NEW** (blue button)
- Deployed** (1 item)
- Draft** (7 items)
- Archived** (0 items)

The main content area is titled "Submissions" and features a bar chart showing the number of submissions over time. The chart is filtered for "Past 7 days" and "Past 31 days". The x-axis shows dates from 13 Dec to 19 Dec. The y-axis shows the number of submissions, ranging from 0 to 12. A single bar is visible for 19 Dec, reaching a value of 11.

Below the chart, there are three summary cards:

- 11** Dec 13, 2019 - Dec 19, 2019
- 0** Dec 6, 2019 - Dec 12, 2019
- 11** Total

The right sidebar contains "Quick Links" and "Data" sections:

- Quick Links:** Collect data, Share project, Edit form, Preview form.
- Data:** Reports, Table, Gallery, Downloads (circled in blue), Map.

To download some data, you need to click on either the **"DATA"** tab or the **"Downloads"** button.

Downloading Collected Data

SUMMARY FORM DATA SETTINGS

Download Data

Select export type: XLS Value and header format: English

Include groups in headers

Group separator: /

Include fields from all 3 deployed versions



EXPORT

From here, choose your file format and other options such as inclusion of group names and which versions of the forms you want data from.

Press “Export” and then a file will appear below this box ready to be downloaded by clicking the download icon



Exports

Type	Created	Language	Include Groups	Multiple Versions	
XLS	Today at 3:21 PM	English	Yes	No	 

Downloading Collected Data: File Formats

There are a number of file formats you can chose your data to come in:

- **CSV:** All data will be part of one CSV file; when this is opened in Excel, all data from all question groups will be in the same sheet
- **XLS:** This will more conveniently split repeat groups onto separate sheets within an excel workbook
- **ZIP:** Similar to XLS in that it splits repeat groups into separate CSV files. It also has the additional benefit of containing any image, audio or video files which were part of the data collection.

Visualizing Geodata

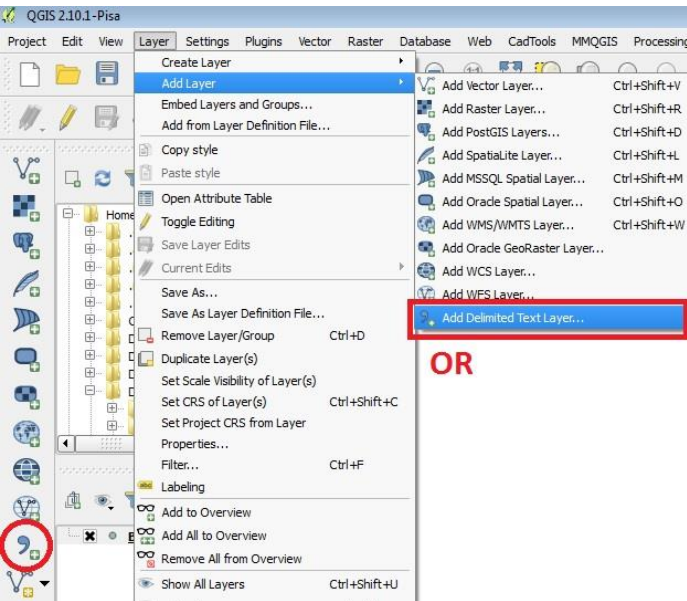
Once you have your data downloaded and saved somewhere useful, you can begin exploring, managing or analyzing your data in whichever software you see it fit, be it in R, STATA, Excel etc.



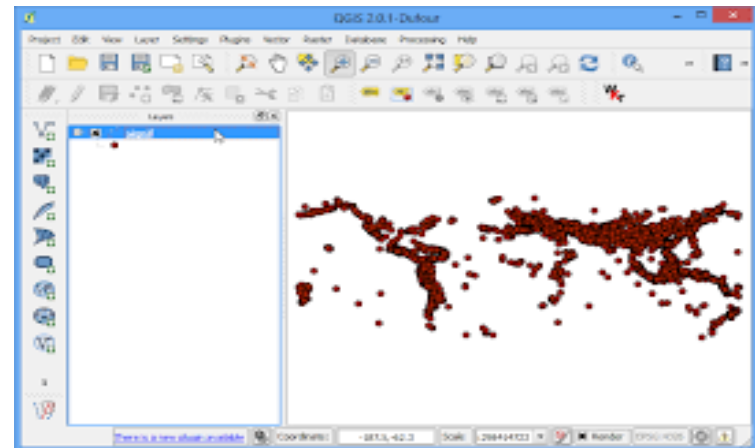
Once the csv files are ready, you can add them into QGIS.

1. Open QGIS in your computer, If you do not have QGIS Installed you can access it here <https://qgis.org>

Visualizing Geodata



2. Click on the "Layer" menu, mouse-over "Add Layer" and click on "Add Delimited Text Layer..." or click on the "Add Delimited Text Layer" icon in the left column of QGIS
3. Follow onscreen instructions for importing CSV
4. Click OK



Resources

- <https://getodk.org/>
- <https://docs.odk-x.org/>
- <https://forum.getodk.org/t/how-can-one-start-using-odk-for-cration-of-forms-and-for-data-collection/41884/2>



Group Discussion and Reflection on PGIS M&E Mobile Data Collection Tools for Enhanced Project Sustainability



Thank You Very Much

