

KoboCollect guidance

Collect geodata in the field with the koboCollect tool

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More information

For more information about the Rainforest Alliance, visit www.rainforest-alliance.org, contact info@ra.org or contact the Rainforest Alliance Amsterdam Office, De Ruijterkade 6, 1013AA Amsterdam, The Netherlands.

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INTRODUCTION

This document provides guidance on how to collect geodata correctly with the KoBoCollect tool, to submit geodata according to Rainforest Alliance's requirements for geodata.

To use the KoBoCollect tool, you first must create a KoBoCollect account on the [KoBoCollect toolbox website](#). Once you have your account can download the smartphone application and login. In addition, once you have created your account you can set-up a project in the KoBoCollect website and you need to upload the data collection forms for points and / or polygons (available at www.rainforest-alliance.org) to your newly created KoBoCollect project environment. Once this is done, you can start collecting data via the application.

The project, including the data collection forms, can be synchronized to all the accounts and mobile phones connected to your organization. Also, when the data is collected in the field, it should be synchronised to the webserver and can be managed via the website.

Finally, the data can be extracted from the KoBoCollect environment into the right format and submitted to the RACP according to the Rainforest Alliance's criteria.

1. WHAT IS KOBO-COLLECT

KoBoCollect is a data-gathering [mobile](#) application and [web-based](#) environment that is free to use and can be downloaded from the android play store. The KoBoCollect mobile app can be synchronized with the KoBo webserver. The mobile app can be used to collect data in the field. KoBoCollect works via a synchronization between an internet browser (desktop) and the KoBoCollect app (mobile device).

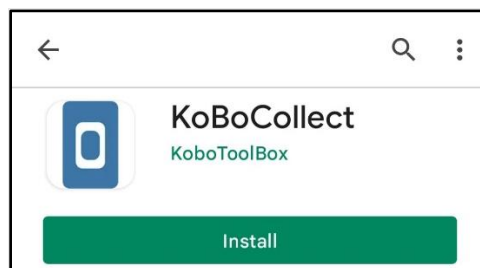


Figure 1. Screenshot of KoBoCollect application in the play store

Figure 1 above shows the logo for the KoBoCollect app in androids play store. To use the application, create an account on <https://kf.kobotoolbox.org>. You can then login to the mobile application with this account.

To get started with KoBoCollect you will need the following:

- A computer to start the project and upload the form
- A smartphone, tablet, or laptop computer to collect the data
- Internet access, although access does not need to be consistent to use KoBoCollect.

You can use <https://kf.kobotoolbox.org> (webserver) without installing software on your computer. If you do not have any internet access where you work, then it may be necessary to install software. The Kobo Toolbox can be installed on Linux or Mac OSX using KoBo's own Docker installation. More information can be found [here](#).

The KoBoCollect application showed in this guidance document is only available in the play store for android smartphone version 2021.3.4.

Note: this application is not available on IOS systems



2. CREATE AN ACCOUNT AND LOG IN

You can create an account by going the <https://kf.kobotoolbox.org> and clicking on “Create an Account”. You must fill in at least your username, e-mail, and password to create an account (see Figure 2). Kobo provides support for [creating an account](#). Please save your password in a safe place, that you can easily access.

Note: You need to create an account as “researchers, aid workers & Everybody Else”.

Create an account

Name Organization name

Username FILL IN

E-mail FILL IN

Sector Country

Gender Male Female Other

Password

Password strength

Password confirmation

Enter the same password as before, for verification.

Create Account

or login

KoBoToolbox

KoBoToolbox is an integrated set of tools for building forms and collecting interview responses. It is built for easy and reliable use in difficult field settings, such as humanitarian emergencies or post-conflict environments.

It is free to create an account and collect data, with no limits on the number of data collection projects. Users can collect up to 10,000 form submissions with their projects per month and store up to 5GB of survey attachments collectively in their user account (photos, videos, audio recordings, PDF, etc.). If you require more submissions or storage, please contact us at info@kobotoolbox.org to arrange for a paid subscription.

If you are a organization providing humanitarian assistance, please use [OCHA's KoBoToolbox installation](#) instead, which provides an unlimited number of submissions.

[Terms of Service](#) | [Privacy Policy](#)

Figure 2. Creating a KoBoCollect account

After you pressed “Create Account” you will receive an activation e-mail. Click on the link to activate your account. Once the account is activated and the e-mail address is verified, you can login with your username and password, as shown in Figure 3 below.

KoBoToolbox

Username: YourUserName

Password:

[Forgot?](#)

Login

or create an account

Figure 3. Login screen



To secure the forms and submit data, and to prevent unwanted submissions to your blank forms, please enable the “require authentication” option, under Account Settings, Privacy, as seen in Figure 4 below.

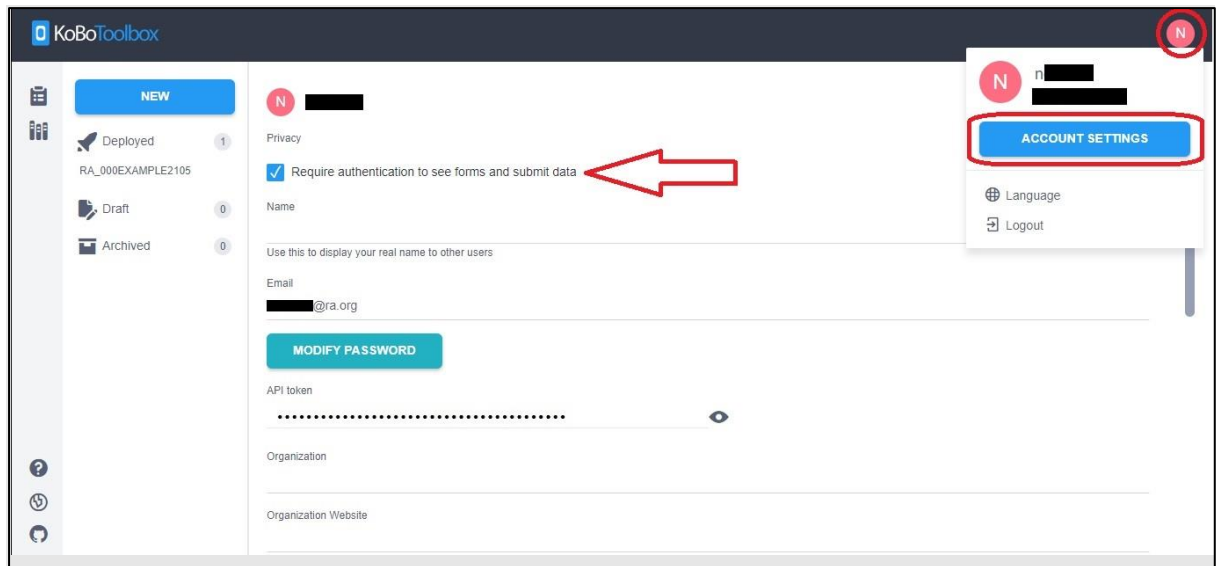


Figure 4. enable authentication in account settings

3. DEPLOY A NEW PROJECT

Once you are logged in, you can start a new project by pressing on the “NEW” button on the main page, as seen in Figure 5.



Figure 5. Main page KoBo of the website

You will get four options to start a new project:



Build from scratch.



Use a template



Upload an XLS Form



Import an XLSForm via URL

Use the option “Upload an XLS form” and upload the forms that we have developed, and you can download from our website (see Figure 6).

1. [KoBo collection form - Points](#)
 - a. This is only applicable for group certificate holders.
2. [KoBo collection form - Polygons](#)

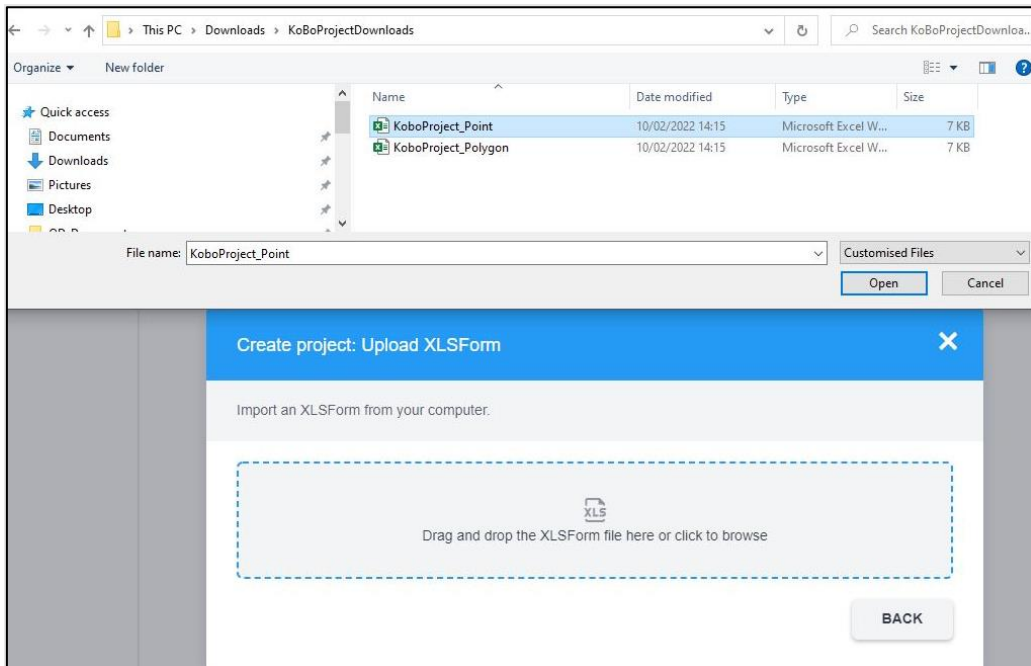


Figure 6. Upload the Rainforest Alliance project file

Once the file is uploaded, you will see the project details. Please rename your project using your Certificate Holder organization ID. It is not mandatory to provide information on the Sector and Country fields.

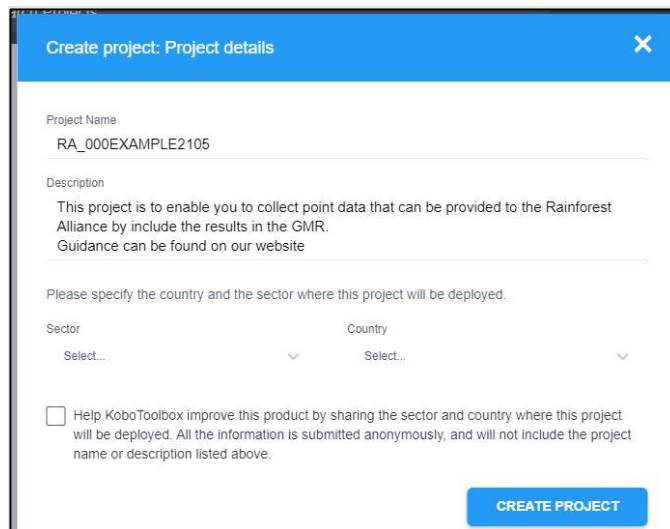


Figure 7. New project

You have now created a project that is linked to your account. The project is provided with a default project name, which can be changed.

To connect the project with the mobile KoBoCollect application, you need to deploy the project so that it syncs with the mobile app.

You can do that by pressing the “Deploy” button next to the project you just created.

You will get a notification on the left bottom of the screen with the status “Deploying the...”. This should change into “Deployed form” once the process is finished.



Figure 8. Deploy new project

You will now see a ¹ (1) next to the “Deployed” projects. Clicking on “Deployed” will open the new project. If you click on the name of the project (Figure 9) you will be directed to the project information.

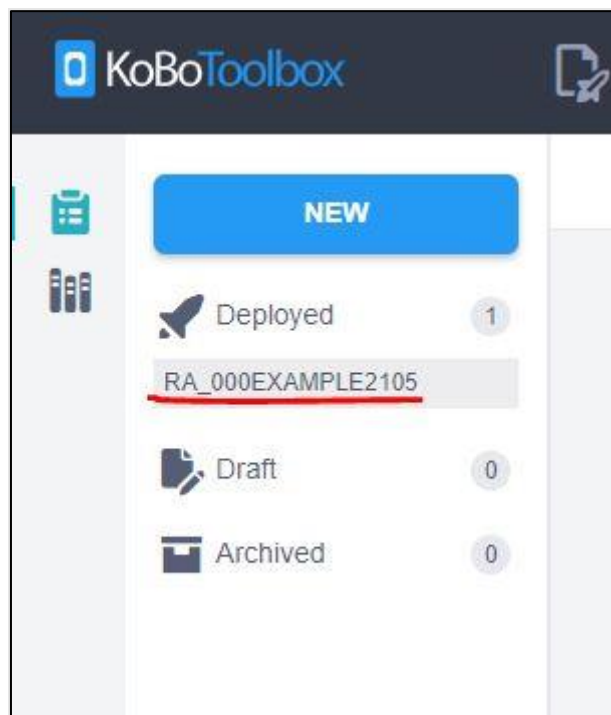


Figure 9. Open the deployed project environment



4. SHARING A PROJECT

A project can be shared with different users. Managers can share a project with several field collector accounts, and several roles can be created within the project. To manage the project, you need to open a project (Figure 9 above)/

The project page shows four options:

- 1) **Summary**, displays an overview of the data collected in the project
- 2) **Form**, this provides information on the project's forms and the "Collect data" settings
- 3) **Data**, this is enabled when data is submitted. Shows the data collected and enables you to manage the data, more in chapter [Error! Reference source not found.](#) Managing project data.
- 4) **Settings**, enables you to adjust the project settings.

To share a project, open the project settings and go to sharing (see Figure 10).

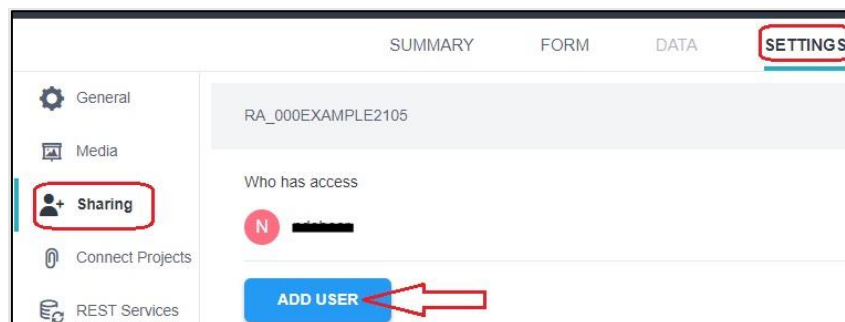


Figure 10. Add user in the project settings

You can add users to the project so they can do field data collection. Each user can have different rights (Figure 11).

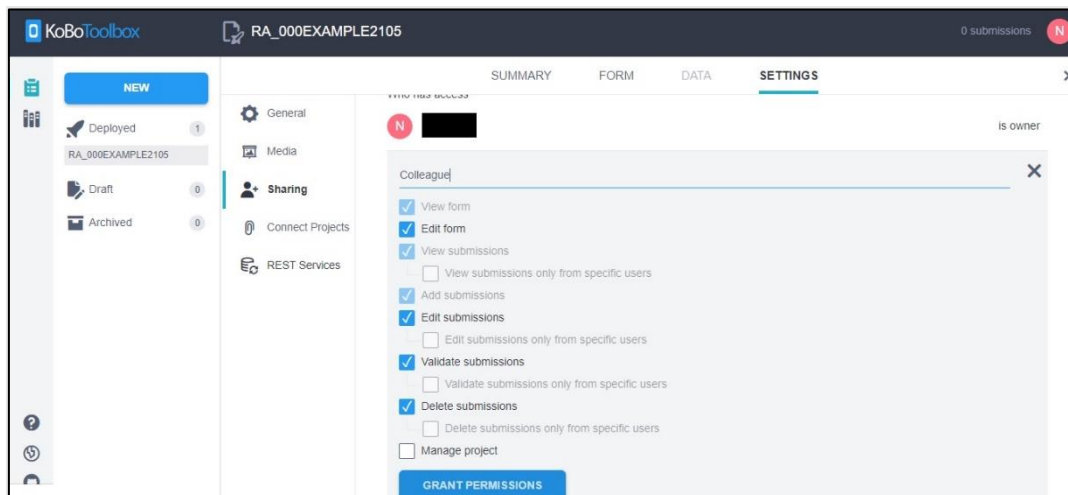


Figure 11. Assigning rights to the user "Colleague"



5. MANAGING PROJECT DATA

Once the data is submitted via the mobile app, it will appear under the project in the server.



Figure 12. Main page server, on the right you can see there are 3 forms submitted

You can open the project page by clicking on the project in the main screen (Figure 12 number 1) or on “Deployed” and the project (Figure 12, number 2).

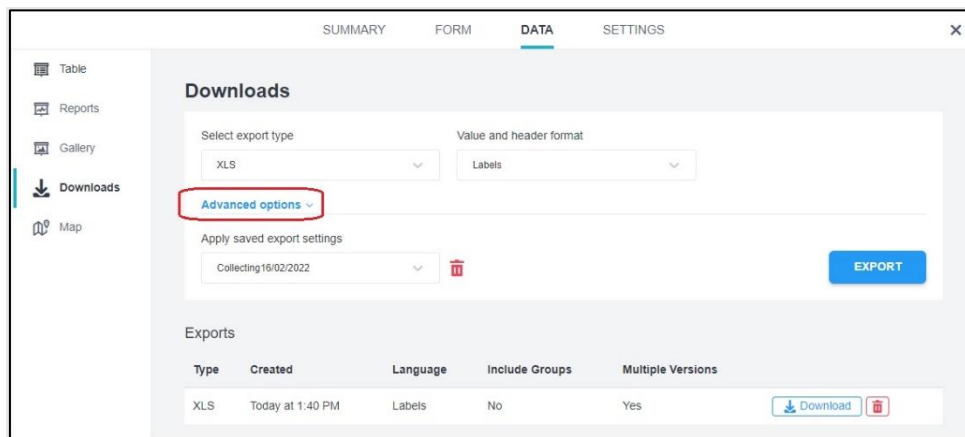


Figure 13. Data, on the left you find the five sections

You will see that “Data” is now enabled on the project page and there are 5 sections:

- 1) **Table** shows information on the forms submitted.
You can (de-)select the forms and edit or delete if needed.
- 2) **Reports**, shows a table with information for each question.
- 3) **Gallery** is only applicable when photos are collected.
- 4) **Downloads**, allows to download and export data.
- 5) **Map**, shows all the collected geolocation points.

5.1. MANAGING POINT DATA

In the first year, group certificate holders are allowed to provide point data for the small farms that are part of the group. in the first year of certification for the small farms part of the group.

In the download section you can download or export the point data collected. You can also manage the type of information included before exporting it. To do so, click to expand “Advanced options” as seen in Figure 14. Figure 14. Export settings for point data. These export settings can be saved in the KoBoCollect server to export at a later moment. See the main functions in the download section here below.

Note: In Figure 14 the Advanced options is expanded.



Figure 14. Export settings for point data

1) Select export type

This option allows you to select the file type in which you want to export your data.

2) Value and header format

There are two options which determine header names of the data in the new file.

3) Select questions to be exported

If you enable this, you can select the data points you want to be able to select. The following data points should be selected:

- a. Internal_Group_Member_ID
- b. Farm_Unit_ID
- c. Farm_Unit_Area
- d. GPS_Point

4) Select all | Deselect all

Enables to deselect all, and manually select the data points needed.

5) Save selection as...

Allows to save the export setting and in the KoBoCollect server to use the same settings again.

6) Export

This button allows you to start the export. Once you have pressed the export button, the exported data will appear in the "Exports" section below it. You can download the exported file from there.

Please note that polygon exports will take longer than point exports.

Also note that any export that is in "Pending" state for longer than an hour will likely fail. If you have an export that is stuck in pending, remove it by clicking on the red trash can icon. Then, retry the exports by clicking the "New Export" button.



Apply saved export settings

No export settings selected EXPORT

Exports

Type	Created	Language	Include Groups	Multiple Versions	
XLS	Today at 3:10 PM	XML values and headers	No	Yes	Download
XLS	Today at 1:40 PM	Labels	No	Yes	Download

Figure 15. Export appearing in the export section

This is how the download excel file should look like:

	A	B	C	D	E	F	G	H
1	Internal Group Member ID	Farm Unit ID	Farm Unit Area (ha)	Record your current location	_Record your current location_latitude	_Record your current location_longitude	_Record your current location_altitude	_Record your current location_precision
2	Member 2	Unit b	3.4	52.654485 5.08525 0 0	52.654485	5.08525	0	0
3	Member 1	Unit1	2.2	52.655162 5.085079 0 0	52.655162	5.085079	0	0
4	Member 3	Unit A	2.1	52.6548451 5.0859176 45.70000076293945 4.8	52.6548451	5.0859176	45.70000076	4.862
5								

Figure 16. Downloaded XLS file

You can delete the following columns:

- D - "Geolocation point"
- G - "__Geolocation point_altitude"
- H - "_Geolocation point_precision"

Now the excel file has the same structure as sheet "3. Farm unit" from the group member registry. You can now copy and paste the information as values in the GMR.

5.2. MANAGING POLYGON DATA

For the large farms of the group and individual farms it is mandatory to collect the polygon of the farm units.

In the download section you can download or export the polygon data collected. You can also manage the type of information that should be included before exporting it. These export settings can be saved in the kobo server to export at a later moment, see Figure 17. Below the main function need in the download section, note that the "advanced option" is expanded in Figure 17.



Figure 17. export settings for the polygons collected

1) Select export type

This option allows you to select the file type in which you want to export your data. Select export type as: **GeoJSON**.

2) Flatten GeoJSON

Check this box, if this is not done, you will not be able to use the GeoJSON file.

3) Select questions to be exported

Enable this and you can select which data points you want to use.

The following data points should be selected:

- a. farmunitid
- b. Collect_Your_Polygon

4) Select all | Deselect all

Enables to deselect all, and manually select the data points needed.

5) Save selection as...

Enables to save the export setting and in the KoBoCollect server to use the same settings again.

6) Export

This button allows you to start the export. Once you have pressed the export button, the exported data will appear in the "Exports" section below it. You can download the exported file from there.

Please note that polygon exports will take longer than point exports.

Also note that any export that is in "Pending" state for longer than an hour will likely fail. If you have an export that is stuck in pending, remove it by clicking on the red trash can icon. Then, retry the exports by clicking the "New Export" button.



Type	Created	Language	Include Groups	Multiple Versions	
GeoJSON	Last Thursday at 3:42 PM	English (en)	No	Yes	 Download 

Figure 18. Download GeoJSON file

When the GeoJSON is downloaded, the file opens in your internet browser and can be saved as a GeoJSON file on the desktop. Right click on the page and "Save as", as shown in Figure 19 below.

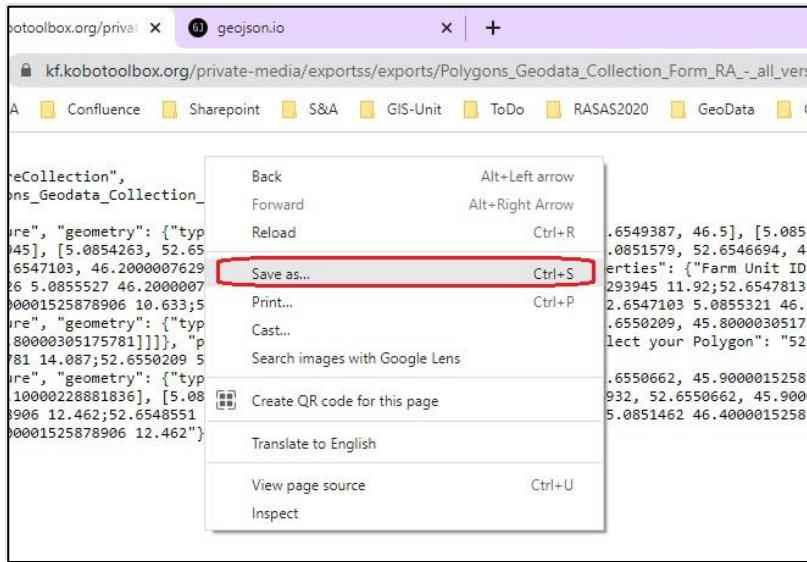


Figure 19. Save the GeoJSON on your desktop

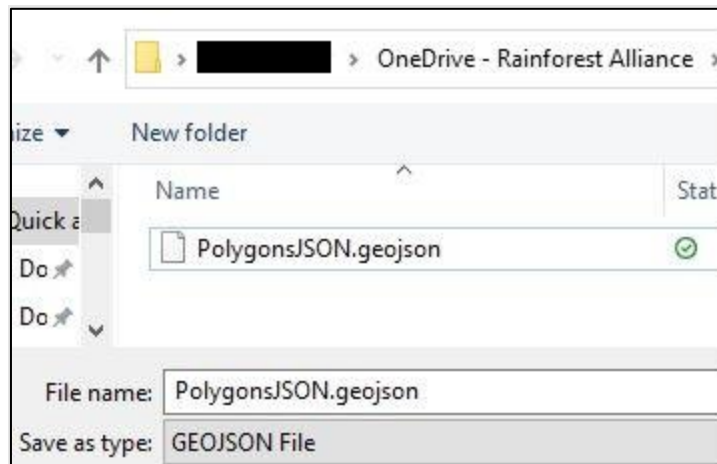


Figure 20. Save GeoJSON file on the computer

Now the file is exported and saved in the desktop, use <https://geojson.io> to import and display polygons captured in the GeoJSON file.



Upload the saved file from the desktop to the site by selecting “Open” from the top left in the screen, see Figure 21.

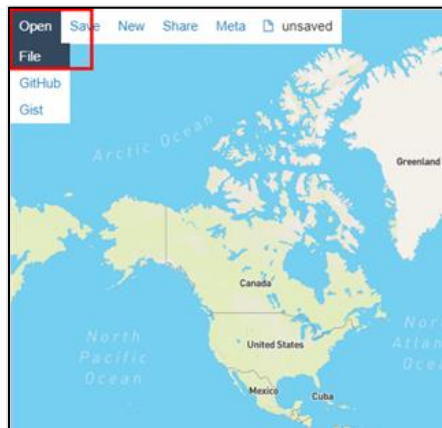


Figure 21. Uploading a file to the geojson.io

When the file(s) have been uploaded correctly, you will see the polygons on the map. See Figure 22.

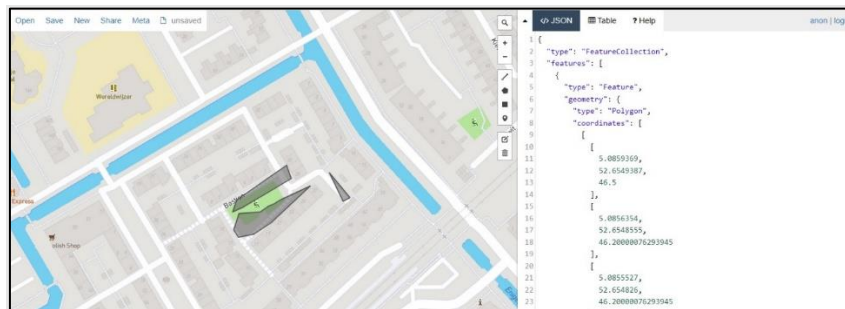



Figure 22. Example of three polygons visible in geojson.io

When your polygons contain errors, you can simply modify the edges in geojson.io and correct them.

Press the edit button  above the recycle bin to start editing. You can move the vertices to adjust the shape of the polygon. Save any edits by choosing “Save”. Cancel all edits by choosing “Cancel”.

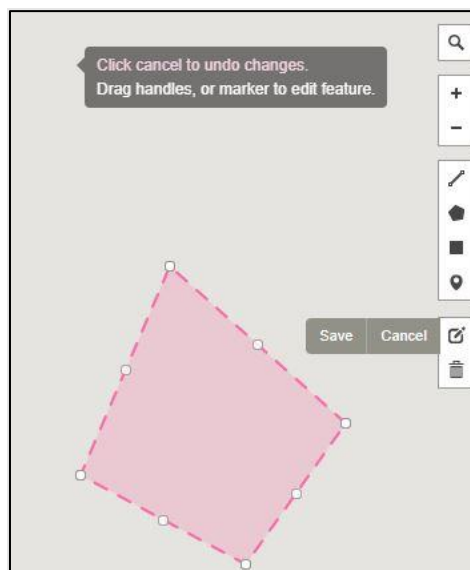


Figure 23. Editing polygons in GeoJSON.io



You can save (edited) polygon files from geojson.io as KML or GeoJSON onto your local computer (see Figure 23 above). This can be done by clicking on “Save” and choosing the option GeoJSON or KML as you prefer (see Figure 24 below).

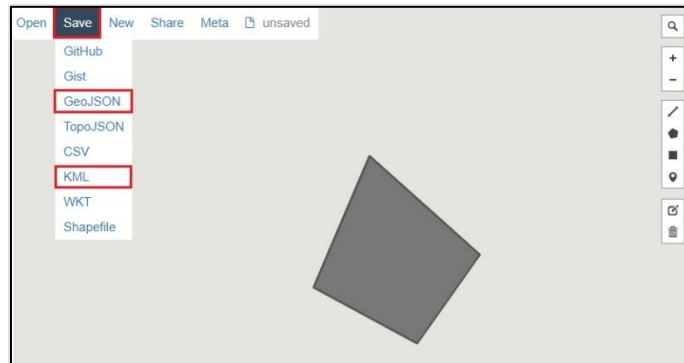


Figure 24. Save File as GeoJSON or KML

6. KOBOCOLLECT MOBILE APPLICATION

To use the shared project on a mobile device, you must have the KoBoCollect app installed. Search in the Play Store for Android smartphones for KoBoCollect to find the application. The KoBoCollect application showed in this guidance document is version 2021.3.4.

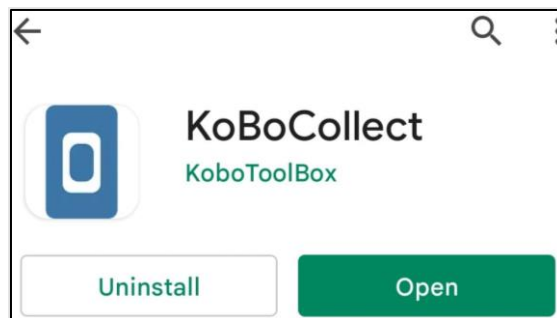


Figure 25. KoBoCollect in the Android Play store

When you open the KoBoCollect app for the first time, you see two different options as seen in Figure 26.

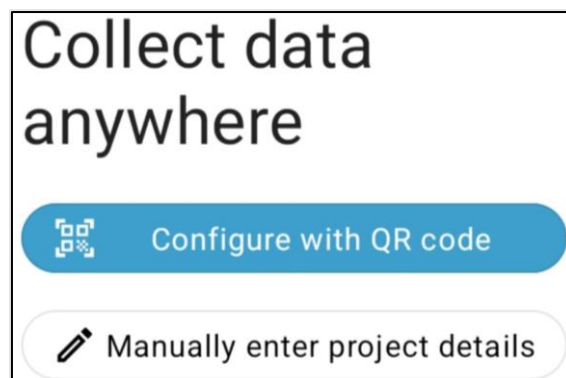


Figure 26. First time opening KoBoCollect



Please log in and connect with the account that you created on your browser. You can do this by choosing the option “Manually enter project details” (Figure 28). The application will require 1) URL, 2) username and 3) password. You can refer to section 2. Create an account and login for further support. You can find the URL on your browser, see the yellow highlight in Figure 27 below.

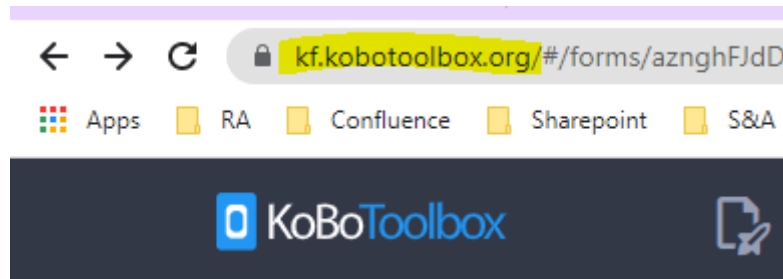


Figure 27. KoBoCollect URL

Figure 28. Connect to your KoBoCollect account

You can always change the settings by going to “Settings” on the top right corner (Figure 29).

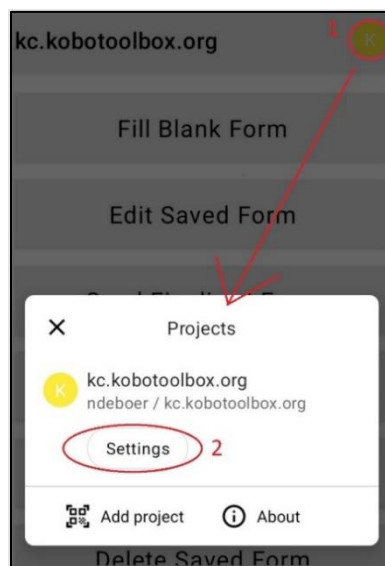


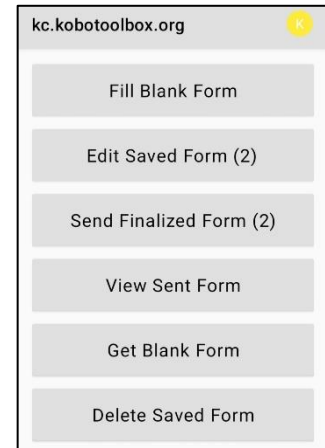
Figure 29. KoBoCollect settings



6.1. SYNC TO PROJECTS, COLLECT AND SUBMIT DATA

After completing the previous step, you can download deployed blank forms from the server to the mobile device. Data collection can be started, and the results can be sent to the projects server.

Figure 30. KoBoCollect main page



This can be done following the steps below:

The first steps (1-4) require an internet connection.

1. From the main page go to "Get Blank Form"
2. Select the project that needs to be downloaded
3. Press "Get selected" in the bottom-right of the screen
4. Wait for KoBo to say that the download was a success

Steps 5 – 9 can be conducted without an internet connection.

5. From the main page go to "Fill Blank Form"
6. Select the project for which the data will be collected
7. The form becomes active, and the data can now be collected
8. Once finished, name the form according to the farm unit visited
9. Press the option "Save Form and Exit"

The last four steps (10 – 13) require an internet connection.

10. From the main menu go to "Send Finalized form (#)"
11. Select the form that must be sent to the server or use the function "Select All" in the left bottom of the screen
12. Use the option "Send Selected" in the right bottom of the screen
13. Press ok when the uploads are successfully uploaded

6.2. COLLECTING POINTS

The form for collecting point consist of 4 questions, these questions must be filled in in the Group Member Registry. The form "Collection form for Points" can be downloaded from the Rainforest Alliance website.

- 1) Internal group member ID:**
This column may be duplicated in sheet "3. Farm unit".
- 2) Farm unit ID:**
This must be unique for each farm unit.
- 3) Farm unit area (ha):**
This is the area of the farm unit and must be above zero.
- 4) Geolocation point:**
The button "Start GeoPoint" enables you to collect the geolocation point of the farm unit.

When "start GeoPoint" is activated you must wait to connect with enough satellites and for accuracy to reach a value of 12m or lower. The higher the accuracy the lower the indicated meters are. Having an accuracy of 12m or lower will prevent issues related to the accuracy that can be detected by the Rainforest Alliance during data validation. See Figure 31 and Figure 32.



Loading Location

Accuracy: 13.47 m

Location provider: fused

Satellites available: 12/24

Time elapsed: 00:15

CANCEL SAVE GEOPOINT

Figure 31. Waiting while collecting the location with current accuracy of 13.47m

Loading Location

Accuracy: 6.2 m

Location provider: fused

Satellites available: 14/24

Time elapsed: 00:06

Cancel Save GeoPoint

Figure 32. Figure 27. Accuracy improved to 6.2m and 14 satellites are connected

When the form is filled out, it can be sent to the server and the data can be managed. Sending the finalized form(s) to the server requires an internet connection.

Send Finalized Form

fuid1
Finalized on Thu, Feb 10, 2022 at 17:47

fuid2
Finalized on Thu, Feb 10, 2022 at 17:47

Clear All Send Selected

Figure 33. Sending the finalized forms, each form was named after the Farm Unit ID.



6.3. COLLECTING POLYGONS

The form for collecting polygons consist of 2 questions, these two questions are required to create the polygon and provides its unique farm unit ID. The form "Collection form for Polygons" can be downloaded from Rainforest Alliance's website.

1) Farm unit ID:

This must be unique for each farm unit.

2) Geolocation point:

The button "Start GeoPoint" enables you to collect the geolocation point of the farm unit.

The tool provides 3 options to collect a polygon. The Rainforest Alliance only recommends using the second option, and it will be elaborated on in Figure 34.

1) Placement by tapping

This option enables the user to tap on the map to indicate where the location points of the polygon should be. This option does not use your location.

2) Manual location recording

This option enables to record your location at a certain point (example. In each corner) and provides the option "Record a point".

3) Automatic location recording

This option enables the KoBoCollect application to track the user's movement and draw a polygon while moving.

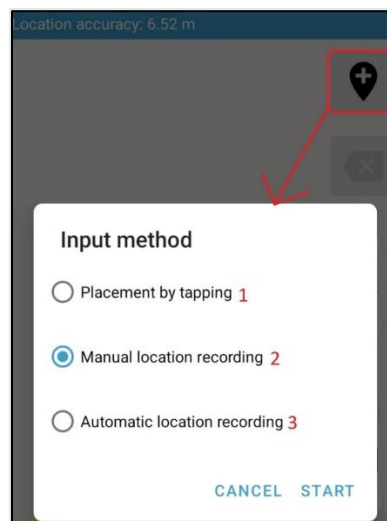


Figure 34. The three input options

Manual location recording

When option 2 is chosen, the option "Record a point" appears at the top of the screen.

The user can press this button if their location as shown on the map (Pink) is correct.

Note that the location accuracy is displayed in the blue bar in the top of the screen, and the number of points entered at the bottom of the screen. The save button can be pressed when the polygon collection is ready.

If you are working without internet connection, the base map will not be displayed. It will not be possible to check where you are. Therefore, it is even of more importance to check the location accuracy.

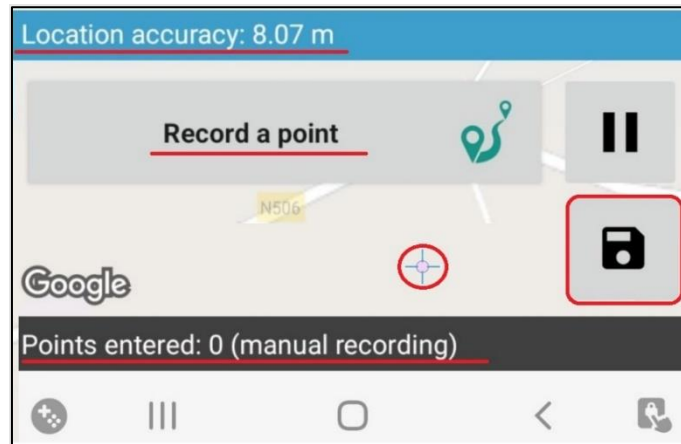


Figure 35. Manual location recording

When the form is finished, it can be sent to the server and the data can be managed. Sending the finalized form(s) to the server requires an internet connection.

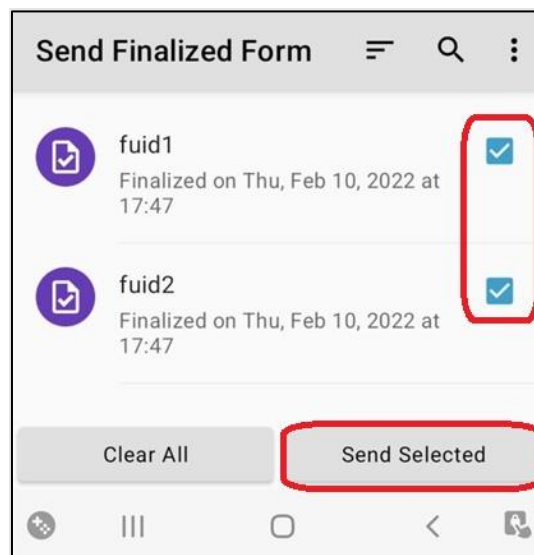


Figure 36. Sending the finalized polygon forms, each form was named after the Farm Unit ID.