

End user guidelines:

How to access digital surveys for aquaculture using ODK Collect mobile app and KoboToolbox

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About WorldFish

WorldFish is a nonprofit research and innovation institution that creates, advances and translates scientific research on aquatic food systems into scalable solutions with transformational impact on human well-being and the environment. Our research data, evidence and insights shape better practices, policies and investment decisions for sustainable development in low- and middle-income countries.

We have a global presence across 20 countries in Asia, Africa and the Pacific with 460 staff of 30 nationalities deployed where the greatest sustainable development challenges can be addressed through holistic aquatic food systems solutions.

Our research and innovation work spans climate change, food security and nutrition, sustainable fisheries and aquaculture, the blue economy and ocean governance, One Health, genetics and AgriTech, and it integrates evidence and perspectives on gender, youth and social inclusion. Our approach empowers people for change over the long term: research excellence and engagement with national and international partners are at the heart of our efforts to set new agendas, build capacities and support better decision-making on the critical issues of our times.

WorldFish is part of One CGIAR, the world's largest agricultural innovation network.

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1. Introduction

Most farm surveys are conducted in remote locations with limited internet connections. Responses to these surveys can be collected offline using either a mobile app called Open Data Kit (ODK) Collect or the KoBoToolbox web-based form.

ODK Collect is a mobile app that can be used on Android devices by enumerators to access the survey tool for aquaculture farmer surveys. ODK Collect is designed specifically for use in the field where internet connectivity is limited or not available at all, and it must be used when conducting farmer surveys. The app should be pre-installed on your mobile Android device (phone or tablet), and the latest version of the survey form should be downloaded using the app at least a day before the survey begins. All data entered can be saved as a draft when using the app offline and then uploaded to the server once a stable internet connection is established. The steps for accessing the survey tool on the mobile app can also be found in the course on aquaculture survey with ODK on Learn.ink that can be accessed at the following link: https://bit.ly/3AYXUGQ

KoBoToolbox web-based form also allows users to enter, save and submit field data. Access to a web-based form is done using a project-specific link in a browser (Chrome is best). It will only work smoothly with a strong internet connection, so the web-based form should NOT be used during field surveys but rather when training enumerators. It offers better visualization on a larger screen when accessed using a laptop or desktop and easier navigation for enumerators throughout the entire survey.

These guidelines provide the necessary steps to access any type of farmer survey developed for ODK. In this case, we will use our "Fish Epidemiology and Health Economics (FEHE) survey tool as an example, using both the KoBoToolbox web-based form and the ODK Collect mobile app.



Before attempting to use the survey tool, first read the "Step-by-step guide to conducting digital surveys for aquaculture performance assessment" (pictured left). It can be accessed at the following link: https://hdl.handle.net/20.500.12348/4451

For more information on how to sign up and access the ODK course on Learn.ink, please refer to the "End user guidelines: How to sign up and access the course on aquaculture survey with ODK on Learn.ink". It can be accessed at the following link: https://hdl.handle.net/20.500.12348/4894

Note: All images shown in these guidelines are indicative and may not reflect the latest version. All shared log in credentials for ODK server settings and URL links to the KoBoToolbox web-based form are provided only as an example and should not be applied for actual survey projects.

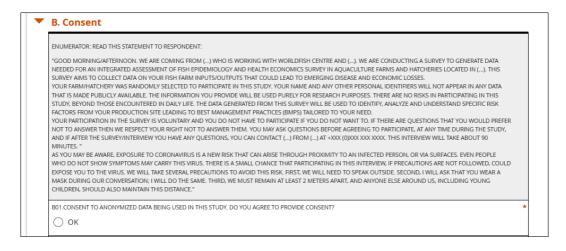
2. Accessing a digital survey using the KoBoToolbox web-based form

2.1 Opening the web-based form

1. To go to the web-based survey form, in this case the FEHE survey tool, open a new tab in your browser (Chrome is best) and paste the link that was shared with you. Check the title with your team leader to ensure that you are using the latest version of the survey form. As an example, you may use the following link: https://bit.ly/3Azq1eO



2. Read the consent statement to the respondent. If the respondent agrees, select 'OK' under question 'B01' to begin the survey. If the respondent does not agree, you may immediately end the survey.



2.2 Filling and saving a draft of the web-based form

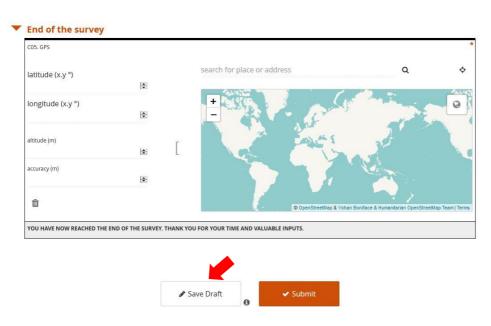
1. Once you have obtained the respondent's consent, you may begin the survey. Enter the survey ID based on the ID your team leader gave you.

BO2.SURVEY ID	*
Each enumerator is given a unique letter for the entire duration of the project. This letter is followed by a unique number and the date when the survey is performed [format: A000Xyear month day]. For example, if enumerator 1 is given the letter A and the enumerator's first farm visit is on November 25, 2019, the survey ID is A0012019 11 25.	

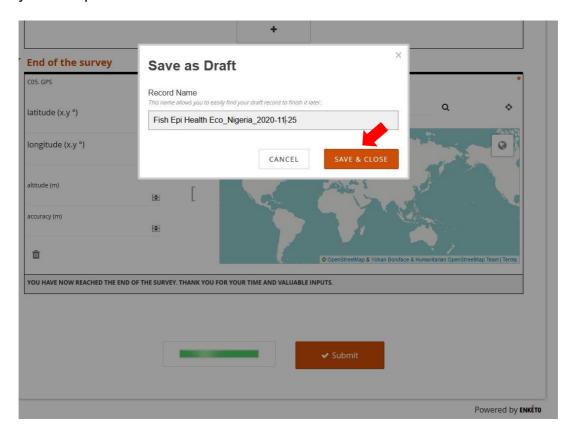
2. During the survey, bear in mind that for multiple select answers, the form will freeze for 3 seconds to load the next question.



3. If at any time you would like to pause the survey or save a draft, click the 'Save Draft' button at the bottom of the screen.



4. The 'Save as Draft' window will appear. Ensure that the 'Record Name' is correct and click 'Save & Close.' The saved records will be stored in your browser and appear in the left queue pane until they have been uploaded, even if you turn off your computer.



2.3 Updating the web-based form

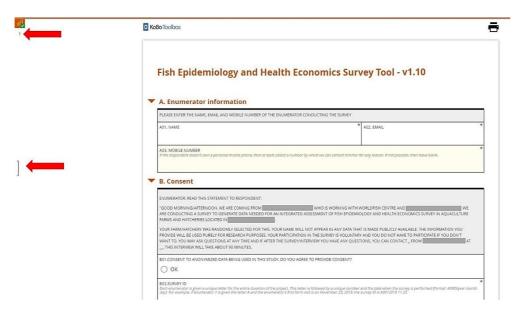
1. If a message pops up in a yellow box at the top corner of the web-based form, it means that a newer version of the form has been deployed. If this happens, first save the current draft form following the previous steps if you would like to retain the entered information.

Note: The yellow box may appear late and only momentarily. To ensure you are using the latest version of the form, save your draft form often, refresh your browser regularly and check frequently with your PI, co-PI or team leader.

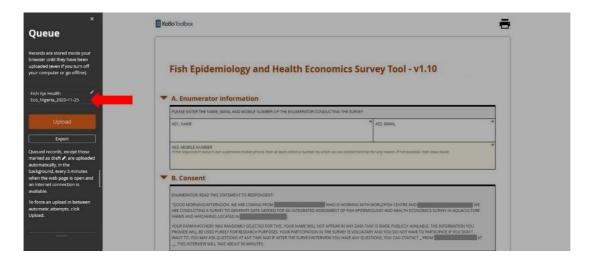
- 2. After saving a draft of the form, refresh the page using the same URL to load the latest version of the form.
- 3. Once you have refreshed the page, check the form title with the PI, co-PI or project leader to ensure it is the correct version. The newly loaded form will be blank and needs to be filled in again from the start.

2.4 Reopening a draft of the web-based form

1. To reopen or continue with any draft survey, click on either of the two tabs located at the far left of the web-based form.



2. The 'Queue' side pane listing all draft and complete records that have not yet been uploaded will appear on the left. From here, select the title of the draft form that you would like to continue working on. Draft forms are indicated by a draft (pencil) icon. Forms are named based on the name of the respondents interviewed and their respective business type.

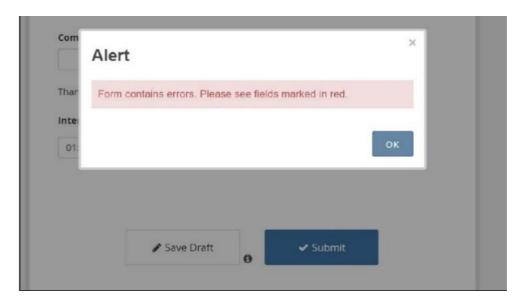


2.5 Submitting a finalized web-based form

1. Once you have completed filling in the web-based form, click the 'Submit' button at the end of the last page.



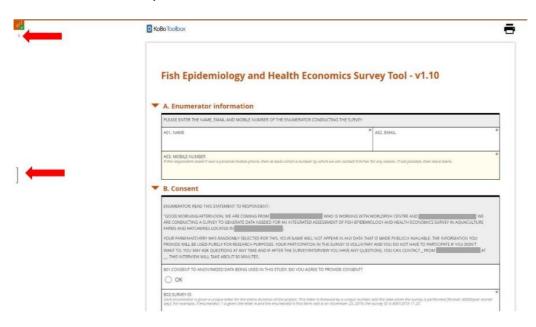
2. If at any time an 'Alert' window message pops up upon submitting a form, it means that there are errors in the survey. Ensure that all fields marked in red have been answered properly.



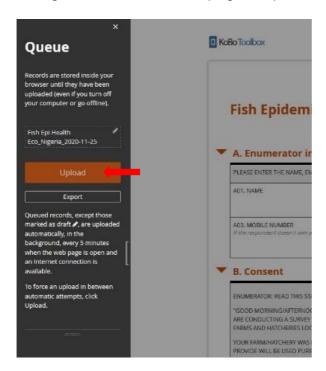
3. Browse back through the questions to look for errors in sections highlighted in red, as shown below. Answer the necessary questions.



4. In an event where the internet connection is limited and you would like to force submit a web-based form when you arrive at a location point with a stable internet connection, click on any of the two tabs located at the far left of the web-based form to load the 'Queue' pane.



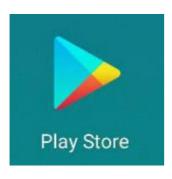
5. Click 'Upload' to force upload completed forms. Completed forms in the queue will also be automatically uploaded to the KoBoToolbox server every 5 minutes in the background when the web page is open and an internet connection is available.



3. Accessing a digital survey using the ODK Collect mobile app

3.1 Part 1: Installing and launching ODK Collect

3.1.1 How to install ODK Collect on your mobile devices





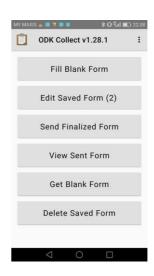


- Select the 'Play Store' icon on your mobile device.
- In 'Play Store,' search for the ODK Collect app.
 Select 'Install' to download and install the app.
- After installation, the ODK Collect icon will appear on the home screen of your mobile device.

3.1.2 How to launch ODK Collect



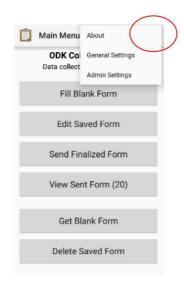
 On your mobile device's homepage, select the ODK Collect icon to open the app.

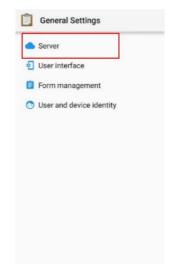


2. The main menu of ODK will appear. To access the survey form, follow the steps listed in section 3.2.1.

3.2 Part 2: Downloading and navigating a survey form on ODK Collect

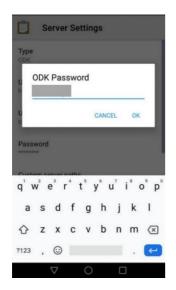
3.2.1 How to download a survey form on ODK Collect

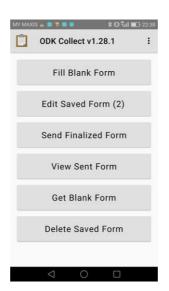




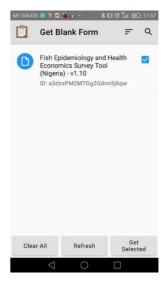


- Select the menu (three dots) icon in the top right corner and select 'General Settings' from the dropdown menu.
- 2. Select 'Server' from the drop-down menu.
- Enter the URL, username and password settings for your project that your team leader provided. Press on the text to begin entering the settings.





Once done, go back to the main menu and select 'Get Blank Form.'



6. Press the checkbox to select the form. Then press 'Get Selected' to download the form.

4. Enter the URL, username and password. As an example, you may enter the following credentials to see a short demo:

URL:

https://kc.humanitarianresponse.info Username: tdoi_kobopublic Password: tdoi_kobopublic123



7. A 'Download Results' message window with the form name will appear. 'Success' will be displayed when the form is downloaded successfully.

3.2.2 How to navigate a survey form on ODK Collect



1. To access the survey questions for the first time, press 'Fill Blank Form' after downloading the survey form. If you have not downloaded the form already, steps on how to do so can be found in section 3.2.1. Once you press this button, refer to section 3.3.1 in Part 3 of the guidelines for further instructions.



 To continue an incomplete survey, press 'Edit Saved Form' to see all saved questionnaires.

Once you press this button, refer to section 3.3.3. in Part 3 of the guidelines for further instructions.



3 To send saved and finalized questionnaires, press 'Send Finalized Form.'

> The team leader will use this button to upload finalized questionnaires to the server at the end of each surveying day.

Once you press this button, refer to section 3.3.5. in Part 3 of the guidelines for further instructions.



To see all sent questionnaires, press 'View Sent Form.'

> This button is used to double check that all the finalized questionnaires have successfully uploaded.



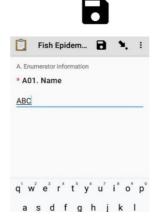
7. Within the survey, you will be able to answer a single question at a time.

Swipe right to go to the previous question; swipe left to go to the next question.



To get blank forms from the server, press 'Get Blank Form.'

Once you press this button, refer to section 3.2.1. in Part 2 of the guidelines.

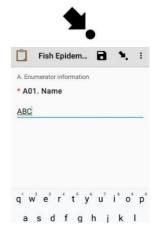


8. Press the disk icon (third icon from the right at the top) to partially save the questionnaire at any point. Always REMEMBER TO SAVE when pausing or before closing the questionnaire. You can access and continue to fill in your saved questionnaire by pressing the 'Edit Saved Form' button.

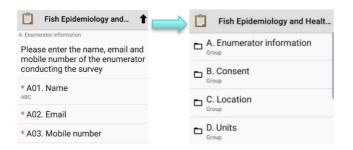


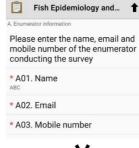
To delete saved questionnaires, press 'Delete Saved Form.'

Do not delete unless you are sure that the information is no longer necessary.



 Press the diagonal arrow button (second icon from the right at the top) to submit your answer and jump to the next question.







10. Press the 1 up arrow to view all sections of the survey.

 Questions marked by the asterisk symbol cannot be skipped and must be answered.

3.3 Part 3: Filling, saving and submitting a survey form on ODK Collect

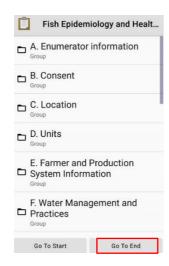
3.3.1 How to fill and save a survey form using ODK Collect



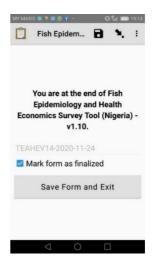




- 1. Select the 'Fill Blank Form' button.
- In the 'Fill Blank Form' window, press the form name to begin entering data.
- Begin answering the questions one at a time. Swipe left to move to the next question; swipe right to move to the previous question.



4. If you need to pause while filling in the survey but still need to edit data in the future, press the 'Go To End' button at the bottom right of the screen.



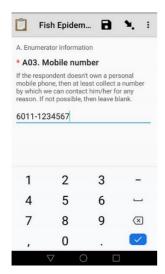
5. Leave the 'Mark form as finalized' checkbox unchecked to save the form as a draft version.

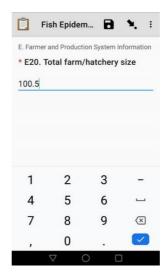
*Only mark the checkbox 'Mark form as finalized' if there are no more changes.

Then select 'Save Form and Exit.' The form will be saved with the format "TEAHEVXX-YYYY-MM-DD."

3.3.2 Types of survey questions on ODK Collect

There are five types of questions you will use in a form:





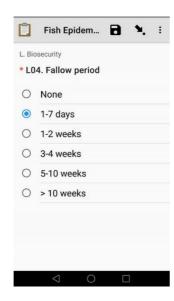


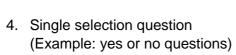
- Integer number question (Example: types of crops)
 - Use the keypad to enter a round number for this type of question.
- 2. Decimal number question (Example: weight)

Use the keypad to enter a decimal number for this type of question.

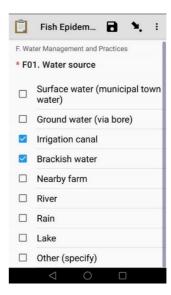
3. Text question (Example: name)

Use the keypad to enter a text answer for this type of question.





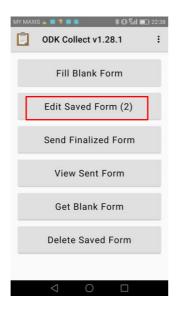
Select either one of the answers provided to answer this type of question.



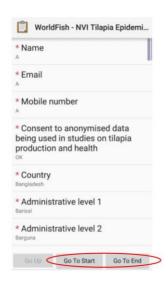
5. Multiple selection question (Example: types of expenditures)

Select multiple checkboxes that apply to answer this type of question.

3.3.3 How to reopen draft forms using ODK Collect



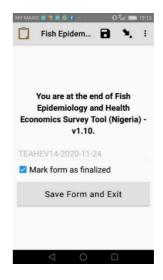
 To reopen a draft form, select 'Edit Saved Form.' The number in the parentheses indicates the total number of draft forms saved.



 The app will show all previously entered data in the draft form.
 Select 'Go To Start' to edit the entered data from the beginning.
 Select 'Go To End' to go to the last screen of the draft form.



2. Select the draft form name to reopen the draft form.

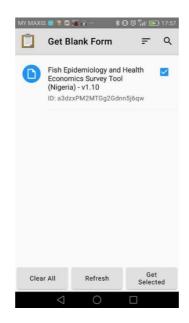


4. Once you are done editing, remember to save the form. Either select the 'Mark form as finalized' checkbox if you want to submit the finalized version OR leave the checkbox unchecked to save the form as a draft version. Then select 'Save Form and Exit.'

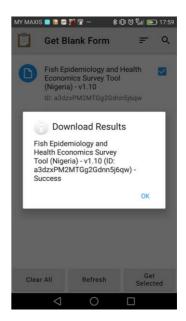
3.3.4 How to update and replace survey forms in ODK Collect



 In the main menu, press 'Get Blank Form.'



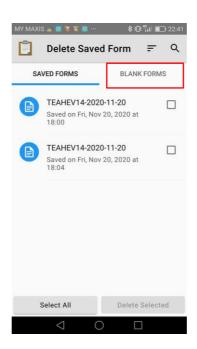
Select the new form you wish to download, then press 'Get Selected' to download it.



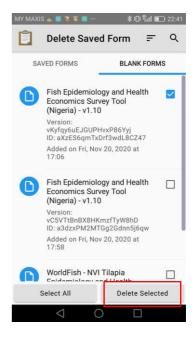
 A 'Download Results' message window with the form name will appear. 'Success' will be displayed when the form is downloaded successfully.



Go back to the main menu, and press 'Delete Saved Form.'



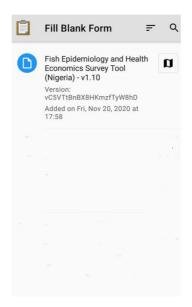
5. Press the 'Blank Forms' tab.



 Select the form you wish to delete (normally an older version of it), then press 'Delete Selected.'



Return to the main menu and select 'Fill Blank Form.'



 To begin the survey, select the new form you wish to access. In this case, it is the "Fish Epidemiology and Health Economics Survey Tool (Nigeria) – v1.10."

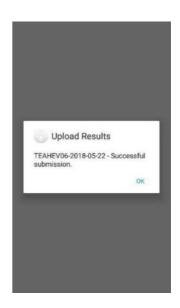
3.3.5 How to submit finalized forms on ODK Collect



 To submit the finalized form to the ODK server, select 'Send Finalized Form.' The number in the parentheses shows the total number of finalized forms pending for submission.



Select the finalized form. Press 'Send Selected' to submit the finalized form.



An 'Upload Results'
message window with the
form name will appear.
'Successful submission'
will be displayed when the
form is uploaded
successfully.

4. Using the course on aquaculture survey with ODK on Learn.ink

Aside from these guidelines, we also recommend using the online course on aquaculture survey with ODK on Learn.ink: https://bit.ly/3AYXUGQ, whenever a printed copy of these guidelines is not at hand.

The course on aquaculture survey with ODK on Learn.ink covers all the steps in these guidelines under Module 2: Basic Operations in the following parts:

Part 1: How to install ODK Collect

Part 2: How to launch and navigate ODK Collect

Part 3: How to download a form in ODK Collect

Part 4: How to start a new survey form in ODK Collect

Part 5: How to reopen draft forms in ODK Collect

Part 6: How to submit finalised forms in ODK Collect

For better understanding on how to answer the questions in the FEHE survey tool, refer to Module 3: Questionnaire in the course. The step-by-step walkthrough of the survey is provided in the following parts:

Introduction to the questionnaire

Part 1: Enumerator identification and farmer consent

Part 2: Farm production information

Part 3: Fish stocking and feeding

Part 4: Existing farm conditions and disease prevention

Part 5: Treatments

Part 6: Farm mortality and disease

Part 7: Economics

Part 8: Wild fish mortality

Part 9: Miscellaneous information

We recommend taking the online course on aquaculture survey with ODK on Learn.ink once you have completed reading and implementing the necessary steps listed in these guidelines. Steps on how to sign up and access the course on aquaculture survey with ODK on Learn.ink can be found in the end user guidelines:

https://hdl.handle.net/20.500.12348/4894



About WorldFish

WorldFish is a nonprofit research and innovation institution that creates, advances and translates scientific research on aquatic food systems into scalable solutions with transformational impact on human well-being and the environment. Our research data, evidence and insights shape better practices, policies and investment decisions for sustainable development in low- and middle-income countries.

We have a global presence across 20 countries in Asia, Africa and the Pacific with 460 staff of 30 nationalities deployed where the greatest sustainable development challenges can be addressed through holistic aquatic food systems solutions.

Our research and innovation work spans climate change, food security and nutrition, sustainable fisheries and aquaculture, the blue economy and ocean governance, One Health, genetics and AgriTech, and it integrates evidence and perspectives on gender, youth and social inclusion. Our approach empowers people for change over the long term: research excellence and engagement with national and international partners are at the heart of our efforts to set new agendas, build capacities and support better decision-making on the critical issues of our times.

WorldFish is part of One CGIAR, the world's largest agricultural innovation network.

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