

Guidance Note

How to use the NEAT+ with KoBo Toolbox

The **Nexus Environmental Assessment Tool (NEAT+)** is a simple project-level environmental assessment/screening tool designed for humanitarian practitioners. The NEAT+ was developed under the *Coordination of Assessments for Environment in Humanitarian Action* ([Joint Initiative](#)).

This guidance note details how organisations can use or test the NEAT+ using [Kobo Toolbox](#).

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1. How to use the NEAT + online with KoBo Toolbox

1.1 Introduction

Kobo is a free open-source field data collection tool for use in challenging environments, which allows both online (web-based) and offline (application-based) data collection. KoBo was designed for humanitarian workers and endorsed by the United Nations Office for the Coordination of Humanitarian Affairs (OCHA). For more information on the KoBo server, please visit:

<https://www.humanitarianresponse.info/en/applications/kobotoolbox>

To use NEAT+ with Kobo, you will need to log into your KoBo account or create an account on the [KoBo website](#) from your computer as well as the creation of KoBo projects. In a KoBo project, a specific KoBo questionnaire form is loaded, and any inputted data saved.

In KoBo, the NEAT + is divided in two modules, resulting in two forms into which the user can input data. The two modules are the 1) *Sensitivity Module*, which gives a snapshot of the environmental sensitivity of the area being assessed, and the 2) *Activities Module*, which provides the user with an analysis of the impact of the planned humanitarian activities on the environment, and mitigation tips.

Using the NEAT + with KoBo requires the following steps:

1. Collecting data through the KoBo platform using the two forms mentioned above;
2. Downloading the inputted data on the user's computer, and;
3. Copying and pasting this data into a Microsoft Excel document that will generate the assessment report.

The KoBo forms for NEAT+ have been split into two separate projects to allow the same sensitivity entry to be used for activity submissions without having to fill in the sensitivity questionnaire twice. The instructions below are for testing in the webform. If you would like to test on a mobile device or tablet, please consult **03.01 Guidance Note – collecting and uploading data in KoBo with mobile device or tablet**.

The use of KoBo brings added value to the NEAT+, as the platform allows the user the to add useful data such as photos and exact GPS coordinates of the project location. In addition, KoBo can compile several analyses for one project, allowing a programme officer to gather inputs from different locations of the same project in one file and to follow the development of the situation over time. Multiple data entries can be compared by using the dashboard functionality in PowerBI. For more information see the Dashboard guidance note in this guidance package.

For ease of testing Kobo and NEAT+, public KoBo projects were developed for use by anyone.

Note: Users are encouraged to test the KoBo process with the demo version provided below **before** using the NEAT+ in operational contexts.

Using the NEAT+ with KoBo has several advantages over only using Excel, however the user needs to be familiar with the process and the tool to get the most benefit out of the functionalities of KoBo and the NEAT+.

1.2 Test the JEU demo version

Before using the NEAT + for operational purposes, users are encouraged to test the JEU's demo version, especially if they are not familiar with KoBo Toolbox.

To test the NEAT+ with KoBo, you will need the following:

- The data and forms of the demo version, linked below;
- **The 'NEAT + (Kobo data entry)' excel sheet**, provided in the NEAT + toolkit (accessible and downloadable here: <https://www.eecentre.org/resources/neat/>);
- An active KoBo account (<https://kobo.humanitarianresponse.info>).

Note: Please only use the demo version for testing purposes and not to assess/screen real ongoing projects. Data inputted into the demo version is public and stored in the UNEP/OCHA Joint Environment Unit's KoBo account.

Step-by-step process:

1. Log into your KoBo account. If you do not have a KoBo account, please create one on the website from your computer: <https://kobo.humanitarianresponse.info>
2. Complete the questionnaire in the KoBo form using the following data collection links (using the Chrome browser is recommended):
 - **NEAT+ environmental sensitivity module Demo Version in KoBo**
Questionnaire: <https://ee.humanitarianresponse.info/x/9VpoGRml>
 - **NEAT+ activity modules Demo Version in KoBo (Shelter, WASH and Food Security & Livelihoods)**
Questionnaire: <https://ee.humanitarianresponse.info/x/sx3efZUb>

You must complete the sensitivity questionnaire. The activity questionnaires are optional. You can select the language of the form (English, French or Spanish) before entering your data.

Please note that the results will be displayed in the selected language. At the end of the questionnaire, click “submit”. Depending on your internet connection, the submission of data may take up to 5 minutes.

If you do not wish to fill in the questionnaire, the JEU has already inputted test data in this version. As an alternative, you can use this data to test the process. You can then skip this step and go directly to step 3 to download the data.


3. Once the form has been successfully submitted, download the data from the KoBo server using the download data links below:

- *Sensitivity Module* Data Download:
<https://kobo.humanitarianresponse.info/#/forms/aqfgpQyH5T8rG6EvkWuFJB/data/downloads>
- *Activity Modules* Data Download:
<https://kobo.humanitarianresponse.info/#/forms/aT9vRSTEQE8vYHrUinAusB/data/downloads>

You need to download the data in a specific format from the server to be compatible with the ‘**NEAT + (Kobo data entry)**’ excel file:

- Select type as “XLS” and “XML values and headers”.
- Do not check the “include groups in headers” box.
- Click “export”.

Once the project has been exported, click on the “download” sign on the right side.

Exports					
Type	Created	Language	Include Groups	Multiple Versions	
XLS	Today at 11:00 AM	XML	No	No	

4. You will find the downloaded spreadsheet in the ‘downloads’ folder of your computer. Open this document, select all the data on the sheet and copy it. On a PC, you can use CTRL+A to select all and CTRL+C to copy it to your clipboard.

Return to the NEAT+ toolkit and open the ‘**NEAT+ (Kobo data entry)**’ excel sheet. Select ‘enable content’ if it appears on your computer.

Go to the second tab, called 'Paste Kobo Sensitivity here', click on the empty cell A1 at the top left corner of your sheet and paste the Sensitivity Module data into the cell.

Note: The data must be pasted into cell A1 of the tab.

Each line of data pasted here represents one completed Kobo environmental sensitivity form.

If you also downloaded Activity Module Data, copy the data from your other downloaded excel file and paste it into the third tab, called 'Paste Kobo activity here'.

- Once you have downloaded and copied the data correctly, you should be able to select the nickname of your project in the fourth tab which is called *Select Project (KoBo)*. Confirm that the information displayed in the tab matches your KoBo entry. *Note that the generation of the analysis can take up to 5 minutes.*

Please note: This test version is public; hence the downloaded Excel document may contain several rows of data entered by previous testers. For this reason, you will need to enter a specific nickname when filling out the form on KoBo, and then select this nickname in the drop-down list on the *Select Project (KoBo)* tab in the '**NEAT + (Kobo data entry)**' document.

If you have decided not to fill in the questionnaire and to use test data from the JEU instead, please select the nickname: **JEU demo version**.

- You can view the results of the sensitivity analysis in the eighth tab entitled Sensitivity Summary. Based on the questions you have answered, this automatically generated analysis flags environmental issues of high, medium and lower concern, as seen in Figure 1.

Environmental Sensitivity Analysis		NEAT + Nexus Environmental Assessment Tool
Assessment of: Test project Assessment completed by: Vathanya Organisation completing assessment: OCHA		Date of Assessment: 21-Dec-20 Location: Kabul Country: Afghanistan
Issues of High Concern	Issues of Medium Concern	Issues of Lower Concern
There is a high concentration and/or number of people. The potential environmental impact is greater.	There may be a weakened or poor governance system. There may be low capacity for environmental management.	The community may have low self-sufficiency. There may be a greater demand (and impact) on the local environment.
The community may not be socially cohesive. This can prevent collective action and lead to social conflict.	The environment has fragile ecosystems. Further assessment is required to determine if loss of biodiversity is accelerating.	The environment has a low regenerative capacity. The effects of land and soil degradation are more significant.
The environment has high biodiversity value. Vulnerable and/or rare flora and fauna may be at risk.	Rates of deforestation may exceed regeneration capabilities. Deforestation may be a risk.	
The community may be close to a protected/conservation area. There may be legal/social implications.	Indoor air pollution, caused by poor ventilation and cooking/heating, may be an issue.	
There are areas of high cultural significance. This can threaten social cohesion.	The area may have poor slope stability. Landslides or mudslides may be a risk.	
The community is close to an international border. Transboundary resource management and/or pollution may be a concern.	This area may be at risk of soil erosion from wind.	
There is a risk of air pollution from nearby activities.	This area may be at risk of flooding.	

Figure 1: Example of an Environmental Sensitivity Analysis report

For each of these highlighted issues you will also find additional information and mitigation tips below, as seen in *Figure 2*.

Affected Community	
Communities interact with the environment on multiple levels, with these interactions having environmental, as well as social and economic implications. Environmental impacts therefore also have socio-economic consequences. Vulnerable segments of society and the community are often disproportionately dependent and affected by the environment, and have unequal capacity for adaptation.	
The following has been identified as a potential concern:	
Large concentration and/or number of people.	
Additional Information	Mitigation Tips
A large and/or concentrated population can exceed the capacity of the local environment to absorb impact coming from the populations. This can lead to unsustainable pressure and potential permanent or long-term degradation of the surrounding environment and overconsumption of natural resources. Social issues are also created when there are high populations competing over limited resources.	<ul style="list-style-type: none"> Explore alternative settlements and/or consider relocation of part of the camp/settlement occupants to another location Plan for sustainable use of resources before setting up any temporary settlement, especially regarding shelter construction materials, water management and waste disposal Plan for introduction and dissemination of fuel-efficient stoves As soon as practical, establish resource user groups to promote sustainable and fair use of available natural resources Plan for community green spaces such as tree covered areas or gardens that provide shade and a sense of community Plan land use to reduce exposure to wild animals (e.g. designate buffer zones or protected areas) If possible, keep camp populations below 20,000 and locate sites at least 15km from ecologically sensitive areas and neighboring camps

Figure 2: Example of NEAT+ sensitivity summary report and mitigation tips

You can view the results of the activity modules in the additional summary tabs for Shelter, WASH and Food Security after selecting your project in the *Select Project (KoBo)* tab, as seen in *Figure 3*.

Shelter (Siting)

Environmental Concern	Environmental Sensitivity	Potential Activity Impact	Potential Environmental Risk
Key environmental concerns			
The environment has high biodiversity value. Vulnerable and/or rare flora and fauna may be at risk.	Medium	Medium	High
Other environmental concerns			
Rates of deforestation may exceed regeneration capabilities. Deforestation may be a risk.	High	High	High
The environment has a low regenerative capacity. The effects of land and soil degradation are more significant.	High	Medium	High
The water sources may be vulnerable to contamination. Water quality may be an issue.	Low	High	Low
Mitigation Tips			
<ul style="list-style-type: none"> Ensure the tenure security of inhabitants. Tenure security provides certainty and protection from eviction, encouraging long-term consideration for the local environment and thus improving the likelihood of sustainable behavior by future inhabitants. Ensure that there is reliable access to a sustainable safe drinking water source. Ensure that human settlements do not have an adverse impacts on the quality and quantity of nearby water sources. Ensure that energy consumption does not deplete already scarce non-renewable resources and work to minimise the negative localized environmental concerns of energy consumption such as deforestation and indoor air pollution. The production of electricity, if from non-renewable sources, generates emissions and consumes natural resources. However, electricity provision decreases dependency on solid fuels for heating or cooking, and thus decreases the likelihood of local ecosystem degradation. Small-scale renewable energy systems should therefore be investigated. Siting in an area which facilitates renewable electricity plants could be considered. Unmanaged wastewater or bodily waste can lead to long-term contamination of water sources or the ground near the site, and also act as host for vector-borne diseases. Put relevant measures in place to address these risks. Unmanaged wastewater or bodily waste can lead to long-term contamination of water sources or the ground near the site, and also act as host for vector-borne diseases. Put relevant measures in place to address these risks. Incorporating green areas can provide natural protection against various natural hazards such as landslides, erosions and/or flooding. Green areas also improve inhabitant satisfaction and can provide a natural cooling effect. Native flora is preferable; the biodiversity impacts of foreign flora should be properly considered and assessed. A strategy for maintaining green areas should be in place post-implementation. Poorly planned and constructed access routes can lead to erosion, sedimentation and loss of biodiversity. Increased economic activity along access routes can also contribute to 			
Additional Resources			
Quantifying Sustainability in the Aftermath of Natural Disasters (QSAND) - Settlements Chapter			Link
QSAND is a self-assessment tool to promote sustainable approaches to relief, recovery and reconstruction after a natural disaster. It consists of various checklists and benchmarks for achieving environmental sustainability. This resource covers many different types of humanitarian activities.			
Green Recovery and Reconstruction Toolkit (GRRT) - Strategic Site Planning and Development (Module 4)			Link
The GRRT is a toolkit that provides guidance and strategies for environmentally sustainable recovery efforts in a humanitarian context. It consists of numerous modules focused on different thematic areas of humanitarian programming.			
Sphere Handbook 2018 Shelter and Settlements Chapter			Link
Environment is mainstreamed through the chapter. Standard 7 is specifically on environmental sustainability.			

Figure 3: Example of NEAT+ activity module results with mitigation tips

These analyses will display the level of environmental sensitivity of the planned or ongoing activities, the potential activity impact, and then calculate the overall potential environmental risk of these activities. Mitigation tips and additional resources are also displayed in *Figure 3*.

2. How to create your own project on KoBo and use the NEAT + in humanitarian contexts

You tested the NEAT+ demo version and successfully generated the results? Congratulations, you are ready to go!

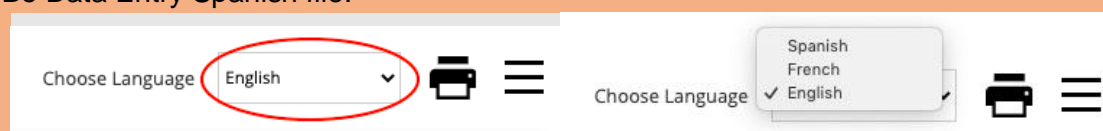
The process of using the NEAT+ in the field will be identical to the testing process, except that users need to create their own project on KoBo. This way, the inputted data will be stored on the user's own KoBo account and will not be available to external audiences.

To use NEAT+ in the field, users need the following materials:

- An active KoBo account (<https://kobo.humanitarianresponse.info/accounts/register/>)
- The '**NEAT Sensitivity KoBoXLS.xlsx**' document, provided in the NEAT+ Toolkit, accessible and downloadable here: <https://www.eecentre.org/resources/neat/>
- The '**NEAT Activity KoBoXLS.xlsx**' document, provided in the NEAT+ Toolkit, accessible and downloadable here: <https://www.eecentre.org/resources/neat/>
- The '**NEAT+ images**' folder, provided in the NEAT+ Toolkit, accessible and downloadable here: <https://www.eecentre.org/resources/neat/>
- The '**NEAT + (Kobo data entry)**' excel file

Note: NEAT+ is available in multiple languages (English, French and Spanish). NEAT Sensitivity, Activity and Excel/Kobo Data Entry forms are available in each language. You need to launch the KoBoXLS Sensitivity and Activity files of the language that you want to complete your analysis in (Kobo Data Entry English/French/Spanish) for NEAT+ to work properly.

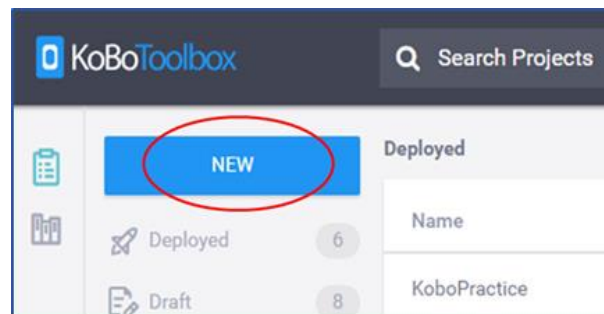
Once in KoBo, the data entry language can be changed on the upper right corner of the page in any language version of the files you deploy. This way a user can complete the questionnaire in another language than the one that has been launched and the analysis is conducted in. For instance, if you want to analyse your results in Spanish: launch the Spanish KoBo files, choose English/French/Spanish when completing the questionnaire in KoBo, then analyse the results using the KoBo Data Entry Spanish file.



Step-By-Step process:

1. Create an account on the KoBo website from your computer:
<https://kobo.humanitarianresponse.info/accounts/register/>
Note that you may choose to use one organizational account for NEAT+ analysis in multiple field locations, or alternatively share a deployed KoBo project with other users in your organization who use their own KoBo accounts to fill in the data.
2. Login using your new account credentials to find your main projects page.

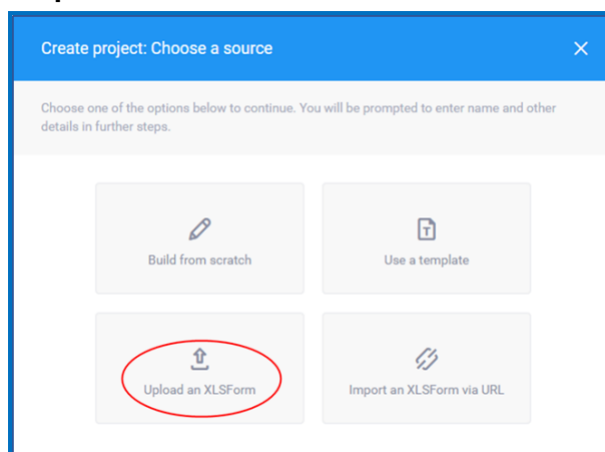
3. Click the 'NEW' button to create a new project. In total you will create two new projects: one for the environmental sensitivity module and one for the activity modules.



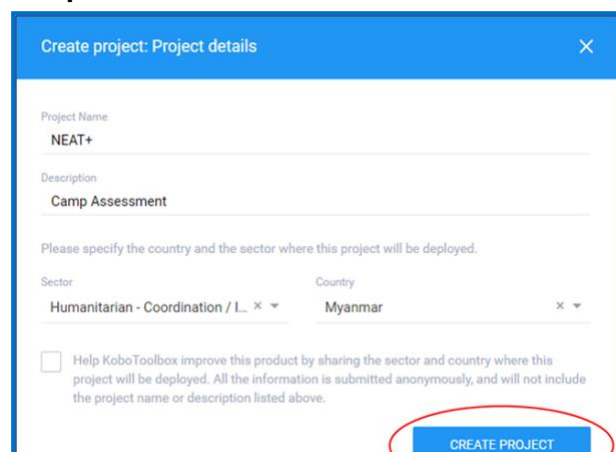
2.1 For Environmental Sensitivity Module

4. Select 'Upload an XLSForm' and either browse to or click and drag the file '**NEAT Sensitivity KoBoXLS.xlsx**' (Step 1 of 2)
Enter your project's details and then select 'CREATE PROJECT' (Step 2 of 2)

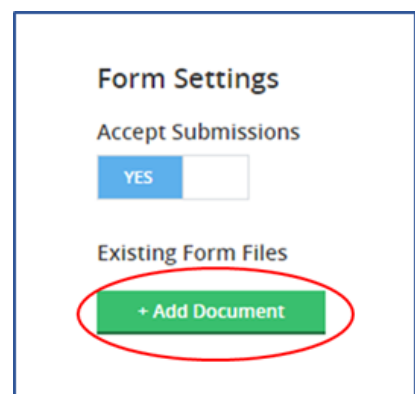
Step 1



Step 2



5. Uploading media (for sensitivity module only):
 - a. Within your new project, click 'DEPLOY'. Now, you can add images to the form which have been curated to assist the user in recording accurate environmental information. These can only be added after an initial deployment of the form.
 - b. To upload media to the form, download the '**NEAT+ images.zip**', available in the NEAT + toolkit.
 - c. Extract all 28 .png NEAT+ images from zip file and save on your computer.
 - d. Click on your project (now found under the deployed menu), and under 'SETTINGS', then 'MEDIA' and then click 'Add Document' to existing form files.
 - e. Select all 28 .png images and click 'Upload'. The files should now be visible on the settings page.
 - f. Then go back to the general settings and click 'Save Changes'. You will then need to redeploy the form to complete the process.



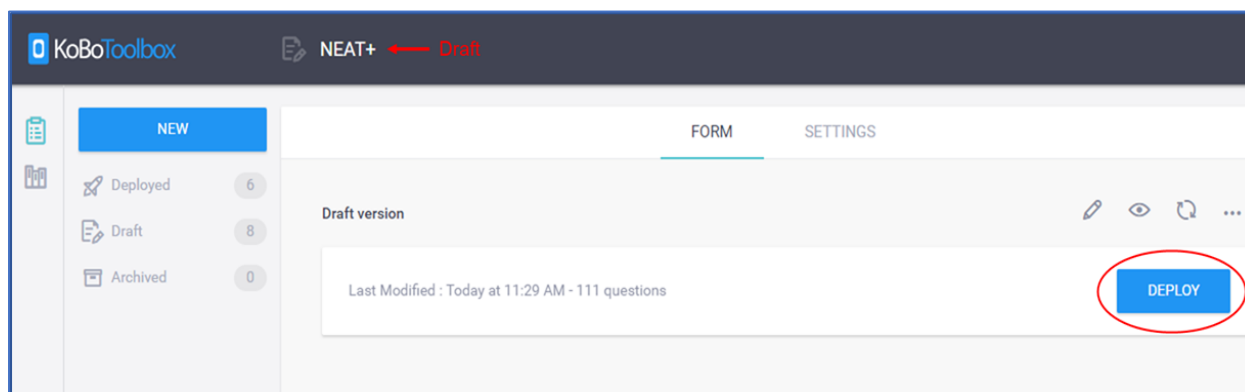
2.2 For Activity Modules

6. Follow the same steps outlined above for the activity modules, except:
 - a. Use the '**NEAT Activity KoBoXLS.xlsx**' document from the NEAT+ toolkit
 - b. Enter new project details and select 'CREATE PROJECT'

There is no media to upload for the activity modules.

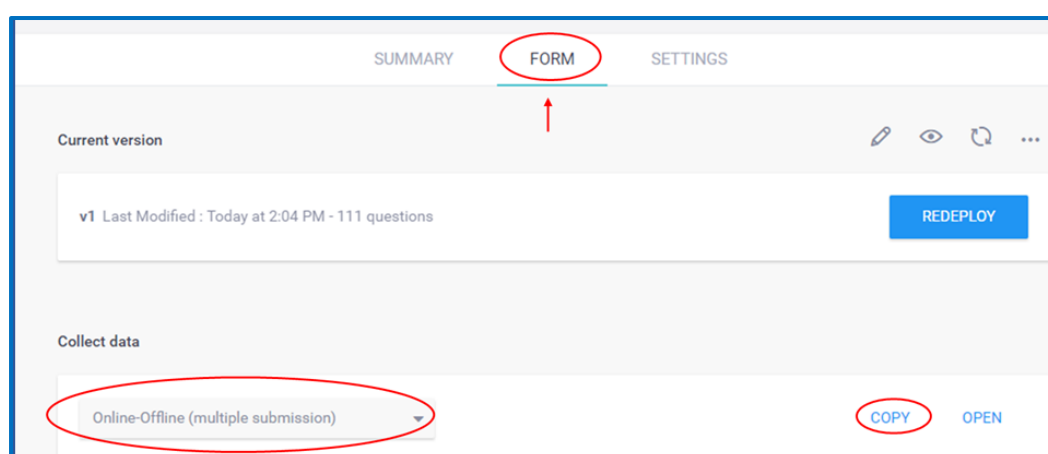
2.3 Deploying a project

- Click on your draft project, and then select 'DEPLOY' to start collecting data for your project.:



2.4 Getting the link for data collection

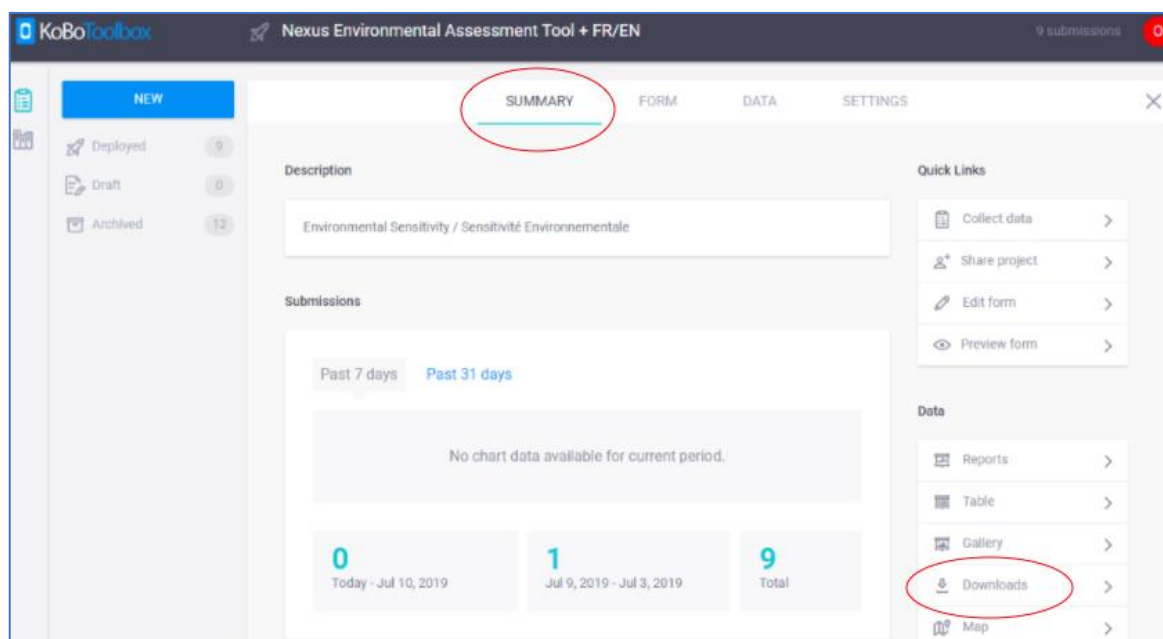
1. Within the 'FORM' settings, ensure that the '**Online-Offline (multiple submission)**' option is selected. This allows data collection via all methods including android app, ios web form, desktop webform, saved offline files on ios/android.
2. Select 'OPEN' to open the form directly in your internet browser. If you wish to share the form with other users, you can send it by clicking 'COPY' to copy and paste link.
3. If you wish to share the form with other users within your organization, you can send it via the copied link from this section.



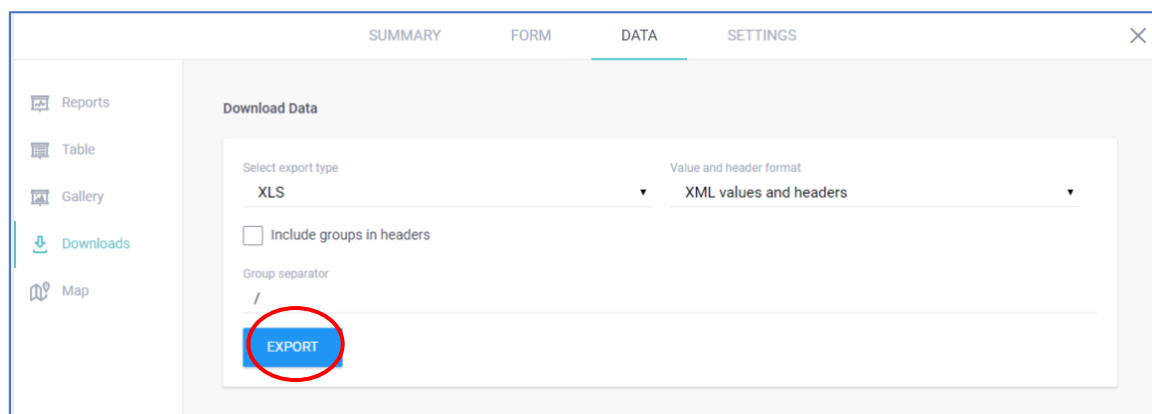
2.5 Downloading the data from KoBo and viewing the results

1. To obtain the results of your assessment, the next step is to download the data from KoBo and copy it into the Excel sheet that will generate your results. It can take up to 5 minutes for the data to be submitted.


- On your web browser, go to the 'SUMMARY' tab and click on 'DOWNLOADS'.



- The data must be downloaded in a specific format from the server to be compatible with the '**NEAT + (Kobo data entry)**' excel file:
 - Select type as "XLS" and "XML values and headers".
 - Do not check the "include groups in headers" box.
 - Click 'export'.



Once the project has been exported, click on the 'download' sign on the right side

Exports					
Type	Created	Language	Include Groups	Multiple Versions	
XLS	Today at 11:00 AM	XML	No	No	

2.6 Generating the results

Once you have downloaded the data, the process to generate the results is the same as when testing the JEU demo version, starting at step 4. (p. 4 of this document).

3. Troubleshooting

If the automatic analysis is not working as intended, please review these instructions and ensure that all steps are carefully followed. Common issues include:

- Downloading the data from the KoBo server in an incorrect format. Ensure you use the advanced downloads option, selecting the “xls” and “xml values and headers” options.
- Not copying or pasting the data correctly. You need to copy all the data from the downloaded excel file including the headers (i.e. “select all”) and paste it into the correct tab in the analysis excel file, beginning from the top left-hand corner (cell A1).
- The project has not been selected in the “Select Project (Kobo)” tab in the analysis excel file.
- Your Excel settings may not be set to calculate results automatically. You can force a manual calculation by pressing F9 in the Excel interface.
- You have not saved the analysis Excel file onto your computer. An Excel file opened directly from an email attachment has limited memory to compute the analysis and may timeout.
- The questionnaire Excel tabs in the analysis file will not update with the inputs from the KoBo data entry. You need to skip these tabs and proceed directly to the summary tabs.
- If the summary is showing unexpected results, you can review the raw data in the “view data in table” function in the KoBo project link to ensure that data was inputted accurately.
- If there are discrepancies between the inputted data in the Sensitivity and Activity modules (different replies chosen for a similar question), the underlying NEAT+ assessment logic will be disrupted, and the analysis results may not show correctly. Revisit the chosen answers to see if this is the case.
- “Null” showing up in NEAT+ summaries. This is not an error but an indication that the threshold for environmental sensitivity/activity impact isn’t met, i.e., in your specific context setting this environmental sensitivity statement is not applicable. If the environmental sensitivity is low/medium or high, but the activity impact is null (because adequate mitigation measures have been taken, as indicated in the questionnaire), the remaining risk (sensitivity x activity impact) will still be calculated.
- You are using data from an older version of NEAT+ to analyse in a newer version of NEAT+ (Note: the current version of NEAT+ was updated in January 2021. The changes made are relatively minor and results can still be compared across versions. However, data inputted using an older version will not work in the newer version).

For additional technical support using the NEAT+, please contact the UNEP/OCHA Joint Environment Unit: ochaunep@un.org