

Guidance Note

Adapting the NEAT+ for specific organizational needs

The NEAT+ was designed to help humanitarian organizations and workers with little or no environmental expertise to obtain a quick analysis of the environmental sensitivities and risks of their projects. The NEAT+ is freely available in English, Spanish and French, accessible online and offline for data collection, and can be adapted to organizations' and users' individual needs. This Guidance Note provides insights on how to adapt the NEAT+ to meet these needs.

Adapting the NEAT+ to meet your project's or organization's needs

The NEAT+ is designed to be able to be adapted by organizations and users for their individual needs. NEAT+ is based on two commonly used software applications – Microsoft Excel and KoBo toolbox. The back-end of the tool is accessible to all users, allowing those confident in the software to review and modify the logic and process that determine the output.

A comprehensive library of risk statements and informational prompts/mitigation tips associated with environmental risks in humanitarian programming has been developed as part of this tool. The methodology used by the NEAT+ to assess potential environmental risks and impacts has been endorsed by numerous technical experts and tested and validated through pilots.

This guidance note provides an outline of the tool and the adaption possibilities for interested organizations. A sample of a technical profile to complete this adaptation is provided. However, this guidance note only provides an introduction to the logic behind the tool and does not go into detail about the modification of the backend, as this is a complex process and can best be performed by a person with the appropriate skills.

Possible Adaptations

In its current form, the tool was designed for a generalist humanitarian based on the sector's main environmental resources and guidelines. The logic and processes for assessing and categorizing risks are derived from these resources and guidelines and have been validated through field testing by the original project team.

However, organisations and users can adapt the NEAT+ to their own environmental guidelines or requirements. Possible changes could include:

- Addition of new environmental risk statements across both the sensitivity and activity sub-modules
- Addition of new mitigation tips per risk statement.
- Modification of the logic behind the multi-criteria analysis of potential environmental risks or impacts (i.e. exacerbating and mitigation factors per issue of concern)
- Modification to the weighting, scoring and thresholds for the evaluation and categorization of potential environmental risks and impacts
- Addition or modification to the sets of questions in the activity sub-modules to include or remove specific questions, or to modify prompts
- Modification of the language to reflect the specific vocabulary of an organisation (e.g. affected people/people of concern/disaster affected population, etc.).
- Modification of emphasis on types of areas assessed – e.g. currently the tool focusses on camp/settlements, but the language can be edited to make it more general

It is not recommended to substantially change the automated analysis process within the NEAT+ itself. This would require significant changes to the current design of the tool – in this

instance it would be recommended to use the existing library database and to build a separate analysis process from scratch.

It is difficult to estimate the amount of time required for organizational modification. This depends on the scope of the modification and on the competencies of the individual making the changes, and particularly on his or her ability to troubleshoot if (when) any issues arise. In order to become familiar with the tool (changes not included), an individual with the suitable profile would need approximately three days.

Required Technical Profile

Most of the research was carried out as part of the original development of the NEAT+. In order to make any changes, interested organizations would need to engage someone familiar with the advanced features of Microsoft Excel. A software developer, programmer or data science background would fit this profile. The technical skillset would need to include:

- Familiarity with Visual Basic for Applications (VBA) in Excel
- Familiarity with XLSForm in KoBo Toolbox
- Confident in using array formulas in Excel
- Confident with advanced functions embedded within each other (vlookup, index, match, countif, etc.)

An individual with this profile should be able to understand how the NEAT+ works by simply exploring the backend and following the logic within the Excel file. There is some documentation available on impact calculations available from the UNEP/OCHA Joint Environment Unit. The following explanation does not comprehensively detail the logic of the NEAT+ and how the file works, but rather aims to support this exploratory process.

Backend of the NEAT+

In the NEAT+ Excel file you can unhide the various sheets to access the backend of the tool. Frontend sheets that display the introduction, questionnaire, and summary (report) may be locked, but these can be unlocked without a password.

For information on the multi-criteria logic used in the automatic analysis process of the calculation tab, please refer to the **explainer on the sensitivity analysis**. Changes can cascade to other tabs if modifications are made in one tab. It is important that any individual making changes understands the dependencies between each tab.

Sensitivity Module

The sensitivity module consists of eight tabs:

- *Introduction* – This tab provides some background information about the NEAT+ and its use. Here the user also inputs basic information about the assessment (basic metadata) and which activity modules they would like to complete.
- *Questionnaire* – This tab contains all the questions for the sensitivity sub-module. A list validation is used for the dropdown menu. Not every question here is relevant, and Excel's logical functions are used to highlight which question should be completed. Validation input messages are used to provide hints.
- *Additional Information* – This is just a text sheet that clarifies some technical questions in the questionnaire.
- *Summary* – This is where the automated report is generated. It pulls information from the statements and introduction tabs. The report is populated using array formulas that automatically populate specific columns based on specified criteria (e.g. high/medium/low risk). Conditional formatting is used for colouring.
- *Statements (hidden)* – This tab contains all the potential environmental risk statements and text explainers. The tab pulls the calculated risk score from the calculation tab, categorizes it into high/medium/low, and filters this information for use in the summary

tab. Thresholds for the bucketing into high/medium/low are defined here. Each sensitivity statement is also assigned one or more mitigation techniques. Up to 15 mitigation tips can be added for each issue.

- *Library (hidden)* – This is a text only tab which includes all the questions and multi-choice options that are asked in the sensitivity analysis.
- *Logic Matrix (hidden)* – This is an informational tab that details the multi-criteria relationships between the questions and each environmental risk statement.
- *Calculation (hidden)* – This tab evaluates the multi-criteria calculation for each risk statement based on the relations defined in the logic matrix. The tab pulls information from the questionnaire and library tabs through vlookup and index/match. A score or weighting is assigned to each variable or multiple-choice response. Aggregation is then performed for each risk statement.

Activity Modules

There are three activity modules (shelter, WASH, and food security and livelihoods). Each activity module consists of eight tabs:

- *Introduction* – This tab begins with some text about the environmental concerns of the sector. Here the user is also required to select which sub-modules they would like to complete. Based on the selected sub-modules, baseline warnings are displayed on this tab. The baseline warnings are pulled from the baseline calculation tabs.
- *Questionnaire* – This tab shows all the questions to be asked for each sub-module. A list validation is used for the dropdown menu. The questions are filtered based on which sub-modules are selected in the introduction tab. Logical statements are used to display the prompts (pulled from the library) based on the selected multiple-choice response.
- *Summary* – This is where the automated report is generated. It pulls information from the baseline calculation, impact calculation and introduction tabs. The previously assessed sensitivity risk is also pulled from the sensitivity module. The environmental sensitivity and potential environmental impact are multiplied in this tab to assess the environmental risk. Conditional formatting is used for colouring. Thresholds for the bucketing into high/medium/low are defined here.
- *Library (hidden)* - This is a text only tab which includes all the questions, multi-choice options and prompts to be asked for each sub-module. Mitigation tips are derived from the response prompts.
- *Logic Matrix (hidden)* – This is an informational tab that details the multi-criteria relationships between the questions and each potential environmental impact statement.
- *Mitigation Statements (hidden)* – This tab contains mitigation tips according to sector issues and potential environmental risk.
- *Impact Calculations (hidden)* – This tab evaluates the multi-criteria calculation for each risk statement based on the relations defined in the logic matrix. The tab pulls information from the questionnaire and library tabs through vlookup and index/match. A score or weighting is assigned to each variable or multiple-choice response. Aggregation is then performed for each risk statement.
- *Baseline Calculations (hidden)* – This tab contains a library of all possible baseline warnings per sub-module. In this tab, each baseline statement is evaluated against values pulled from the statements and calculation tabs in the sensitivity module. The baseline warnings to be displayed are also filtered in this tab through array formulas.

KoBo Integration

The KoBo forms have been developed using [XLSForm](#). The form language should be intuitive for anyone with a basic programming background. The [KoBoToolbox website](#) has a comprehensive library and explainer on using the language.

The downloaded dataset from the KoBo server is integrated into the NEAT+ Excel file. The NEAT+ Excel document can read entries directly from the Excel questionnaire as well as from the downloaded dataset from the KoBo server. Users have been instructed to download the dataset from KoBo in a specific format to ensure that the data is readable by the Excel file.

The KoBo forms for Excel have been split into two separate projects to allow the same sensitivity entry to be used for activity submissions without having to fill out the sensitivity questionnaire twice.

The KoBo-related tabs in the NEAT+ file are:

- *Paste KoBo sensitivity here* – Data downloaded from the KoBo sensitivity project needs to be pasted here. The questionnaire tab in the sensitivity module searches in this tab for the responses collected if using KoBo as the data collection method.
- *Paste KoBo activity here* – This tab functions similar to the previous tab, but for the KoBo activity modules.
- *Select Project (KoBo)* – Multiple data entries can be saved in a single KoBo dataset download. In this tab, users are asked to select which specific KoBo entry they would like to view. The selection in this tab is used for an index/match to populate the questionnaire and calculation tabs. This tab also serves as a check to make sure the data has been downloaded and copy-pasted correctly by displaying the metadata associated with the selected KoBo instance.
- *Kobo Responses (sector)* – These tabs pull data from the KoBo activity tab and present it so the user can see what data was inputted on KoBo and the prompts that were displayed. These tabs are largely a replica of the *Activity Questionnaire* tabs and use the same logic to display the prompts.

The Excel file uses embedded index/match functions to search the headers of the KoBo dataset and match them against the original question in the NEAT+. This matching is done in the hidden columns of the questionnaire tab for each module. The calculation tabs will then pull from either the directly inputted responses or copy-pasted dataset based as instructed in the Select Project (KoBo) tab. As the calculation tabs search for matches in the KoBo dataset against the library tabs for each module, it is necessary that any updates to multiple-choice options are replicated in the KoBo XLSForm to retain compatibility.

For additional support and clarification on modifying the NEAT+, please contact the UN EP/OCHA Joint Environment Unit: ochaunep@un.org