# FRMC User Guide


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## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRMC User Guide</td>
<td>1</td>
</tr>
<tr>
<td>1. Purpose of this document</td>
<td>4</td>
</tr>
<tr>
<td>2. Log in / accessing the production version</td>
<td>5</td>
</tr>
<tr>
<td>2.1 Accessing the production environment</td>
<td>5</td>
</tr>
<tr>
<td>2.2 Browser compatibility</td>
<td>5</td>
</tr>
<tr>
<td>3. Menu bar and general features</td>
<td>6</td>
</tr>
<tr>
<td>4. User management</td>
<td>7</td>
</tr>
<tr>
<td>4.1 User management – create user</td>
<td>9</td>
</tr>
<tr>
<td>4.1.1 Naming convention</td>
<td>11</td>
</tr>
<tr>
<td>4.2 User management – role maintenance</td>
<td>13</td>
</tr>
<tr>
<td>4.3 User management – set credentials</td>
<td>14</td>
</tr>
<tr>
<td>4.4 User management – delete users</td>
<td>15</td>
</tr>
<tr>
<td>5. Communities</td>
<td>16</td>
</tr>
<tr>
<td>5.1 Creating a new community</td>
<td>18</td>
</tr>
<tr>
<td>5.2 Community details</td>
<td>20</td>
</tr>
<tr>
<td>5.2.1 Draft status</td>
<td>21</td>
</tr>
<tr>
<td>5.2.2 Active status</td>
<td>22</td>
</tr>
<tr>
<td>5.2.3 Grading status</td>
<td>22</td>
</tr>
<tr>
<td>5.2.4 Evaluating status</td>
<td>23</td>
</tr>
<tr>
<td>5.2.5 Completed status</td>
<td>24</td>
</tr>
<tr>
<td>5.2.6 Rules for setting up studies</td>
<td>25</td>
</tr>
<tr>
<td>5.3 Community context questions</td>
<td>25</td>
</tr>
<tr>
<td>5.4 Creating a new t-line study</td>
<td>28</td>
</tr>
</tbody>
</table>
5.5 Data collection methods screen
5.5.1 Managing household interviews
5.5.2 Managing focus groups
5.5.3 Managing key informants
5.5.4 Managing data from secondary sources
5.5.5 Error, hint and confirmation messages
5.5.6 Activating a study

5.6 Work assignment screen
5.6.1 Household interviews: Allocating field workers or online surveys
5.6.2 Focus group discussions: Allocating field workers or online surveys
5.6.3 Key informant interviews: Allocating field workers or online surveys
5.6.4 Allocating 2nd source to the project lead

5.7 The questionnaire preview screen
5.7.1 Using the preview screen
5.7.2 Creating a pdf questionnaire

5.8 The study assignment dashboard
5.9 Creating local custom questions
5.10 Working with templates

6. Status overview
6.1 Handling online surveys
6.2 Reviewing progress from fieldwork

7. Grading
7.1 Grading overview screen
7.2 Grading screen
7.2.1 Navigating the grading screen
7.2.2 Using the data screen
7.2.3 Additional answers screen
7.2.4 Additional answer information text balloon
7.3 Grading a t=0 study and explain differentials

8. Results

9. Post Event Studies
9.1 Setting up post event studies
9.2 Status overview of post event studies
9.3 Grading the post event studies
9.4 Viewing results of post event studies

10. Using the local question generator
10.1 Navigating the main screen
10.2 Adding questions
10.2.1 Option
10.2.2 Multi
10.2.3 Numeric
10.2.4 Percentage
10.2.5 Free text
10.3 Reviewing and editing questions
10.4 Sorting questions
10.5 Adding local questions to the study

11. Model Management
1. Purpose of this document

This document is the user guide showing you the necessary steps to work with the Flood Resilience Measurement for Communities (FRMC) – Web Application “Next Gen” – Release 2.13 or later.

Please note that this guide is for the production version of the measurement tool that will contain live data. This version is not to be used for training, demonstration or experimentation. **There is absolutely no testing, no setup of dummy communities and no inputting of dummy data allowed.** When working with live data in the production version, please be careful to always use the correct weblinks, logins and app versions that will function with the production version.

If you need access to a training or practice environment, please contact the Administrators.
2. Log in / accessing the production version

2.1 Accessing the production environment

Use the following website on your computer to access the software:

https://frm-ng.eu-gb.mybluemix.net

For the field workers, use either the Apple iPhone or the Android version. You find it by its official name: FRM-NG App

Or via this url for Android:

See the corresponding mobile App user guide to understand the functionalities of the App (fieldworker use only). Please choose “live” from the environment drop-down menu before logging in to work in the App’s production environment. This will be highlighted by a blue menu bar at the top. If you are in the training menu, the bar will turn red.

Note:
- Trainers will receive their personal login from the administrators of the software.
- Trainers will then create their project lead and field worker users, see user management section.
- There are naming conventions for user name creations, see user management section.

Before logging in, choose your preferred working language to see certain features of the measurement framework (such as source and grading definitions) in the local language.

Enter the username and password you have received for your own personal login and press the login button. You will receive an error message if either username or password were entered incorrectly. As a field worker, you do not have access to the online environment but to the mobile App only. Only fieldworkers have access to the mobile App.

If you forgot your password, you can reset your password through an online link sent to you by clicking “Forgot password?”. You will be shortly receiving instructions on how to reset your password via the associated e-mail account.

2.2 Browser compatibility

It is suggested you use a Microsoft computer with Google Chrome as preferred browser when using the production version. Mozilla Firefox and Safari / Mac also work. Internet Explorer is not supported. The following OS and browser versions are required:

- iOS 9.3+
- Android 4.4+
- Chrome 67+
- Firefox ESR 52+ / Firefox Quantum 60+
- Safari 11+
3. **Menu bar and general features**

After logging in using your personalized log in username and password you received, the top menu bar will provide access to the main control features of the software. Depending on the screen size and settings, descriptions or only icons to the main menus will be visible.

**Administrator menu bar**

**Trainer menu bar**

**Local project lead menu bar**

From the menu bar at the top, you can do the following, depending on your user rights:

- **Communities**: Access the communities that are visible based on your user group (i.e. a trainer can see different sets of communities than an individual project lead can).

- **User management**: Allows users to create and manage other users. This feature is available when logged in as a trainer or administrator.

- **Model management**: Allows users to create local copies of the mechanics of the measurement framework and customize it fully – add and change existing lenses of resilience, create your own resilience lenses and categories and reassign and change weights of sources.

- **Data cockpit**: This is where results from completed studies can be selected and then viewed graphically and numerically.

- **Set Language**: Choose between available local languages to display certain content in that language.

- **User**: Identifies the user that is logged in and lets the user log out.

Wherever there is a 🎨 on a page, a click will open the corresponding help page in a new tab, similar to this user guide, and explain the features available.

Wherever there is an 🛠️ button on a page, a click will open a pop-up window providing you with further advice, guidance and in-depth information on the application of the FRMC framework in your current context. Click the “X” to close the pop-up window.

A breadcrumb navigation bar at the top of your screen, below the main menu bar, allows you to identify your current position in the system and navigate backwards to higher levels of your navigation selection (e.g. from study preview to study setup to community, or from Resilience Source to the Grading of the Study to the Community. **Do not use the back / forward arrows of the browser!**).
4. User management

In this environment, administrators and trainers set up and manage users and their role profile including corresponding access rights.

The following filter and sort functionalities are available to display the users already available in your environment:

- **Username sort button**: Allows you to sort the usernames in ascending or descending order. The direction of the arrow next to the username button displays your current sorting order.
- **Country sort button**: Allows you to sort the usernames according to the country they belong to in ascending or descending order. The direction of the arrow next to the country button displays your current sorting order.
- **Organization sort button**: Allows you to sort the usernames according to the organization they belong to in ascending or descending order. The direction of the arrow next to the organization button displays your current sorting order.
- **Role sort button**: Allows you to sort the usernames according to their role (e.g. Administrator, Field Worker, Local Project Lead, and Trainer) in ascending or descending order. The direction of the arrow next to the role button displays your current sorting order.
- **Search user text filter**: Enter any text in the “search user” text filter and the users matching your search will be displayed.
- **Country filter**: Select the countries that you want to filter the users by in the following pop-up. Selected countries will be highlighted with a tick mark in the box and users assigned to that country will be displayed. Click again to de-select.
- **Organization filter**: Select the organizations that you want to filter the users by in the following pop-up. Selected organizations will be highlighted with a tick mark in the box and users assigned to that organization will be displayed. Click again to de-select.
- **Role filter**: Select the roles that you want to filter the users by in the following pop-up. Selected roles will be highlighted with a tick mark in the box and users assigned to that organization will be displayed. Click again to de-select.
User search filter active

Combination of user search filter and selection for country both active
Note: These filters can be used additively (AND-logic), i.e. you can combine the free text of the search filter with the country and/or the organization and/or the role filter and only those results matching all filter criteria will be displayed.

The following functions are available for user management:

- **+ User creation**: Takes you to a new page to create and set up a new user.
- **Set credentials**: Allows you to change the email address and password of an existing user.
- **Delete user**: Allows you to delete an existing user in a new page (only administrators).
- **Role maintenance**: Allows you to change the roles / access rights of an existing user.

### 4.1 User management – create user

When selecting the button “+ User Creation” in the user management page, the following user setup page is displayed. All fields on this “create user” page are mandatory and must be filled in. This works only if you are logged in as a trainer or administrator. Project leads cannot manage users.
Important: User IDs will not be deleted. If a fieldworker or project lead is leaving your organization, the User ID will be transferred to a new user taking over the work by changing the email address and the password of that User ID. You therefore must adhere to the naming convention below when giving out usernames.

Name: Enter the Name of the user to be displayed when conducting work and for identification purposes. Use the naming convention described below. Remember that usernames cannot be changed and will stay, therefore will be generic. For Example – PracticalActionNepalFieldWorker01

Username: Enter the Username of the user to be used for logging in. Use the naming convention described below.

Email: Enter the email address of the user. This is used for communication purposes and must be the correct, current email address under which the user can be reached. Remember to update this address as necessary, for example if you allocate the user ID to another individual in your organization.

Password: Enter the password that the user will need to log in with. Let the user know the password once user setup is complete through a secure channel. Do not share passwords and ensure they are handled safely. Do not use generic passwords such as ‘1234’ or ‘pwd’ but use real passwords in this live production environment. There is a password convention in place that requires upper and lower cases and letters and minimum length. Ensure you meet the restriction to have any password restriction error message disappear. Password must be at least 6 characters, including one numerical character, one uppercase character, one lowercase character.

Password repeat: Confirm password by retyping it to ensure they match.

Role: Select the role of the user by either clicking ‘field worker’, ‘local project lead’ or trainer (administrators only). If an individual plays multiple roles, they will use separate user IDs for each role. Do not assign multiple roles to a single ID! For example, Siva Ram is a local project lead in Practical Action Nepal and is allocated User ID “panpp01” which he will use to play this role. He is also a relevant field worker, so may be allocated User ID “panpfw01” in addition, which he will use to log into the mobile App when gathering data in the field.

Organization: Select the organization in which the user will be working. Depending on your trainer affiliation, most likely you only have the choice of your organization.

Country: Select the country in which the user will be operating. Depending on your trainer affiliation, you may have one or several choices depending on the countries in which your organization is operating. Choose only one country per user, no multiple selections!

Once all fields have been correctly filled in, the create user button will turn blue and you can click to save and therefore create the new user.
4.1.1 Naming convention

Because user IDs must be transferable (when users leave the organization and new users come onboard to continue work), usernames must be generic. Please use the following table to generate the unique but generic username for the purpose you need it. A username is composed of the organization ID, the country ID and the function ID and, as necessary, a number to make the name unique. Ensure the Name explains what the username is, e.g. use ‘PracticalActionNepalFieldWorker01’ as the descriptive name.

Examples: A field worker 01 active in Haiti working for Concern Worldwide would have a username of cwhafw01 (cw for Concern Worldwide, ha for Haiti fw for field worker and 01 as a unique identifier). Note: Always use a leading 0 for single digits (fw01 instead of fw1). A project lead working for Practical Action in Peru would be papep01. A field worker for PMI working in Indonesia would be pmidfw01.
<table>
<thead>
<tr>
<th>Organization ID</th>
<th>Country ID*</th>
<th>Function ID</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concern Worldwide: cw</td>
<td>Afghanistan: af</td>
<td>Trainer: t</td>
<td>01 through 99</td>
</tr>
<tr>
<td>London School of Economics: le</td>
<td>Bangladesh: bd</td>
<td>Project Lead: p</td>
<td></td>
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<tr>
<td>Mercy Corps: mc</td>
<td>Germany: de</td>
<td>Field Worker: fw</td>
<td></td>
</tr>
<tr>
<td>Plan International: pi</td>
<td>India: in</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Indonesia: id</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practical Action: pa</td>
<td>Ireland: ie</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Red Cross: rc</td>
<td>Mexico: mx</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Nepal: np</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nicaragua: ni</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Peru: pe</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Salvador: sv</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Timor Leste: tl</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>United Kingdom: gb</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>United States: us</td>
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</table>


Once you have entered all the required information, the 'Create user' button turns blue and you can click it to create the user and return to the main user management screen.
4.2 User management – role maintenance

Click on “role maintenance” to reach the role maintenance screen. Tick the box next to the functionality that an existing user should be changed to. The following roles and their user rights are available:

- **Local Project Lead**: The local project lead can view their communities. The local project lead can create, modify, grade and score studies of their communities. The local project lead may assign only those field workers who belong to the same organization and country to a study.
- **Field Worker**: Currently the field worker can only use the mobile app to enter data from the field data collection surveys.
- **Trainer**: A trainer can view, create and modify communities that belong to their organization and country or countries. The trainer can assign a local project lead to a community. The trainer can create and manage local project lead and field worker users who belong to their organization and country or countries, but not trainers or administrators.
- **Research Expert**: These users can access the data cockpit and view / download data in the system.
- **Admin**: The administrator can view and perform all functions available to all other roles, for all organizations and countries. The administrator can create and modify other administrator users and trainers. The administrator can perform further support tasks such as deleting studies, users and returning already graded studies to the status of grading after they are set to complete.

Note: Only one role can be selected at a time.
4.3 User management – set credentials

In this screen the email address of a user for correspondence and a new password can be set. Both need to be updated at the same time. It is the intention to use this screen when a physical user (i.e. a person) has left the organization or is working in a different function now, and the user rights need to be transferred to a different person so that unfinished work in the system can continue.

This function should not be used just to reset the password if it has been forgotten – the self-password management option on the login screen can be used for this instead.
4.4 User management – delete users

Only administrators can delete users in the system. Click the delete user button next to the user you want to remove from the system. A confirmation message will be shown where you need to click “Yes, delete user” to permanently remove the user from the system.
5. Communities

An overview of existing communities is visible in this screen. Communities are listed alphabetically, can be viewed and accessed based on the organization and the country this organization is operating in. Communities are displayed depending on your user group (i.e. a trainer can see more / different sets of communities than a project lead).

The list of communities displays the following features:

- **Name**: The community name as entered by the trainer who set it up
- **Organization**: The organization this community belongs to
- **Country**: The country this community belongs to
- **Lat/Long**: The latitude and longitude this community has been tagged to
- **Households**: The number of households located in this community
- **Study count**: Identifies the number of studies allocated to this community
- **Community details arrow**: The “community details” arrow takes you to the individual community screen

In order to access a community and view details, click the arrow on the right of each community displayed.

To create a new community, click the “new community” button (only accessible to trainers). This will take the trainer to the community setup screen to enter the details to set up a new community.

In order to send a notification email to staff allocated to a community, click “Community Mail”, then tick the community name(s) for which staff should receive the email, and then click “Open Mail Dialog” and “Send Mail”. Your email program will open with the corresponding email addresses in the “To” Field matching your selection. Select “Done” to switch off this functionality again and to return to the main community screen. This functionality is for trainers and administrators only.
You can filter for community names and text by entering the corresponding search text in the “search text” line. The list of remaining communities matching your search text is updated continuously as you type in the search text.

Two further features are available in the lower left-hand corner:

- The arrow accessing the data download screen
- The “email user group” functionality
5.1 Creating a new community

Only trainers can create a new community by clicking the “create new community” button on the community screen. The following screen will be displayed.

All fields are mandatory and must be filled in as follows:

- **Name of community**: Enter a unique community name. An error message will be displayed if a community name has already been taken.
- **Country**: Choose the country the community is located in from the drop-down list.
- **Organisation**: Choose the organization which is working in this community from the drop-down list.
- **Responsible project leader**: Choose the name of the responsible project leader for the work in this community. Note: as a trainer, you must set up the users (project lead and field workers) working in this community first through the user management screen.
- **Households**: Enter the total number of households that exist in this community. This information is very important later when setting up a study to ensure representative sampling is conducted.
- **Average household size**: Enter the average number of people per household based on your knowledge or best guess. Note that the approximate community population should be equal to the number of households multiplied by the average household size in these entry fields. Use the arrows to move the household size up or down by increments of 0.2 or enter directly.
- **Latitude**: Enter the latitude of the community in decimal degrees (DD). Use the info popup to obtain more information on this.
- **Longitude**: Enter the longitude of the community in decimal degrees (DD). Use the info popup to obtain more information on this.
Ensure that the geographic coordinates of the community (latitude and longitude) are correctly filled in. To check your entry, you can click “validate on map” and a pin will display the community location on a world map.

Use the “additional information” buttons to open a pop-up window explaining how to enter latitude and longitude geocodes.

Click “preview community questions” to get a preview of those context questions that will need to be answered by the local project lead and their team. This is a requirement to complete a study, but certain information is helpful to know already ahead of community work starting, so discuss with project leads early.

Click “save” once all information is correctly filled in. The community will be saved, the community detail screen will be displayed. Once the community has been saved, it is no longer possible to change the responsible project leader, country or organization. An edit button is available to edit community name, geocodes and number of households.
5.2 Community details

When clicking the “access community” arrow in the main community screen for an existing community, the following community details page will be displayed. Depending on the status of already existing studies within that community, and the user’s access rights, not all buttons may be displayed.

Community overview screen for a new community with no prior studies.

The following study status may exist for each community:
Community screen for a community with two different study types with different status. Note that you can apply and combine filters both using search text and study type to modify the study display.

For a new community with no previously existing studies, the following options exist:

- **Edit**: For an existing community, you can edit community name, geocodes and number and average size of households.
- **Create study**: Create a new t-line study to collect data on and measure the 44 sources of resilience (at time t). The first t-line study you create for each community will be automatically called t0, the second will be t1, and so on. T-line studies do not need to be named manually.
- **Post-event study**: Create a new post-event study to collect data on and measure the outcome indicators of resilience after a flood has occurred in the community.
- **Delete community**: This is available to administrators only.
- **Search text**: Enter any text to filter the list of existing studies.
- **Search study type**: Select from the drop down to filter by existing post flood or t-line (“normal”) studies. Filters can be combined (“AND-logic”) i.e. you can combine the free text of the search filter with the study type filter and only those results matching all filter criteria will be displayed.
- **More options**: three dots to the right of a study in the community screen indicate further options are available. This is a context-specific menu and options will change depending on study type and study status (progress on completing studies). You will use this menu to create, edit, and activate studies and much more. Depending on your user rights and the study progress, the following options are available:

### 5.2.1 Draft status

In draft status, only the context button “Edit Study” is available, which will take you to the edit / setting up screen for a study.
5.2.2 Active status

In active status, the following context buttons are available:

- **Local questions.** This button will take you to an overview of the local questions that you have generated in addition to the questionnaires for the flood resilience measurement itself.

- **Community questions.** This button will take you to a screen where a local project lead needs to answer the community context questions (see corresponding section).

- **2nd Source Questions:** Allows project leads to access those questions that will be answered online and not through field worker’s Apps.

- **Edit Grading.** This button will take you to the Grading overview screen to grade resilience sources. Note: while you are able to access the Grading overview screen, this does not mean that all data has been collected - information may be missing or only partially complete.

- **View study.** Takes you to the study overview screen where you can see, but no longer modify, the study setup (the combinations of data input methods for all the resilience sources).

In addition, a status overview button has appeared to the left of the context menu. See corresponding chapter for the status overview.

5.2.3 Grading status

In grading status, all the information from the field work has been returned (data collection completed) and community context questions have been completed by the local project lead. The study is ready for or in the process of grading. The following context buttons are available:

- **Local questions.** This button will take you to an overview of the local questions that you have generated in addition to the questionnaires for the flood resilience measurement itself.

- **Edit Grading.** This button will take you to the Grading overview screen to grade resilience sources.

- **View study.** Takes you to the study overview screen where you can see, but no longer modify, the study setup (the combinations of data input methods for all the resilience sources).
5.2.4 Evaluating status

In evaluating status (only available for studies that are not t0), the grade changes in a t>0 study compared to the prior study need to be assessed and justified. In the context menu, “evaluate grading”, “view grading” and “view study” are available as options. For t0 studies, the status will be moved from grading to completed directly, without evaluating, once grading has been set.

Select “evaluate grading” to be taken to the grade change evaluation screen.

In this screen, the project lead is asked to provide a reason to explain the grade of t(n) compared with the prior study t(n-1). Two steps per grade are necessary: To select the corresponding best option(s) from the drop down, and a free text field with a further quick explanation, especially useful for highlighting which action or intervention is believed to have caused a grade increase.

Depending on the three possible scenarios (grade increase, grade unchanged, grade decreased), the options in the drop down are as follows:
Provide a selection and an explanation for each of the 44 sources of resilience and save. Once you are happy with the entries and do not require to make any further changes, set to complete, then save and exit.

5.2.5 Completed status

In completed status, the local project lead has graded all the sources and set to complete. For repeat t-line studies, the local project lead has also evaluated the reasons for the new grades compare to the old grades in the evaluating status. Results are now available for display. The following context buttons are available:

- **Results.** This button will take you to the overview page for the grading results.
- **View Grading.** In order to review grading comments and statistical display of answers received for each source in a completed study, the grading environment can be accessed read-only after it has been set to complete.
- **View study.** Takes you to the study overview screen where you can see, but no longer modify, the study setup (the combinations of data input methods for all the resilience sources).

In addition, in graded status an “export grading” icon has appeared to the left of the context buttons.
5.2.6 Rules for setting up studies

The following status rules apply to be able to set up new studies:

- Post-Event studies are completely independent from t-line studies. A certain status of one type of study does not influence the ability to create / move a status forward for another type of study.
- A new study of the same type can only be created and be in draft status when the prior study of the same type has been activated (i.e. you cannot create a t1 study unless t0 is active).
- You cannot activate a study of the same type unless the prior study has been graded and set as complete.
- Etc.

In case of a status error, the following message will be displayed:

```
Error. There is a study in state draft or active present. A new study cannot be activated.
```

5.3 Community context questions

It is important that project leads familiarize themselves with community context questions early on, as they may influence how you define a community and the way in which you interact with the community from the outset of the project. However, the community context questions screen can be accessed from the context menu of an active community (i.e. a t-line study has been set up, see next section) by clicking community questions.

In this screen, a set of community-level questions is asked for context purposes. These questions are answered within the web application and are the responsibility of the
project lead. They will not influence the grading or appear in the data for the 44 sources of resilience but are mandatory to be completed.

- **Save**: You can edit a few questions and click the save button. This allows you to continue later.
- **Complete**: If all community questions are answered and you want to move to status complete, use the button. **You still then need to save, and confirm the warning message** that changes will no longer be possible.

In order to move a study to Grading status, this set of questions must be answered completely (all questions including the last free text question) and saved on the web application in this screen before progressing to the grading stage. If all questions have been completed, the “set complete” button will turn blue and is available to close the context questions.

You must first click “complete” and then “save” to move the community context questionnaire status to complete. Once the status of a community context questionnaire has been set to “complete”, it will remain in this status indefinitely and cannot be returned to active.

For repeat t(n) studies other than t0 studies, the community context questionnaire will be prepopulated with the answers given in the previous t(n-1) study. You will need to review and change as appropriate before completing and saving.
For repeat t-line studies, a corresponding message will be displayed.
5.4 Creating a new t-line study

This chapter assumes that a project lead and a community have been set up by the trainer and that the new community has been allocated to that project lead. In order for the project lead to be able to allocate field work to field workers, they also need to be set up before study questionnaires can be allocated to field workers.

The project lead is logged into the system and has the main community screen open. From the main screen, click "create study" to enter the t-line study set up screen.

The following options are available:

- **Show questions**: A toggle switch that is either left (off) or right (on). If moved to the right, the corresponding question/answer pairs will be displayed when hovering your mouse over a source-data input method combination.

When the toggle switch is on, it will display survey questions while hovering over the checkboxes with your mouse.

**Note**: When hovering your mouse over the source name, the source definition will be displayed in a box similar to the ‘show questions’ function, but no toggle is necessary.
• **Local questions:** This allows the project lead to create and add local questions to the survey that are not part of the current measurement framework. Details are explained in the corresponding section later.

• **Template:** Access and manage study templates that allow you to save your current or recreate a previous study setup and modify it for this study. Details are explained in the corresponding section later.

• **Save draft:** This button saves the current study setup as draft and allows you to continue working. The button is only highlighted if there are new changes to the study setup from the previous save step. You can continue to edit the study process. Always save draft first before leaving the community study setup screen if you don’t want your last progress to be lost. If there is unsaved data while you try to navigate someplace else, a warning message will appear.

• **Preview:** Takes you to the preview study screen, showing the current set of questionnaires that you have created in your current study setup. Details are explained in the corresponding section later. The preview button is only available if latest changes have been saved as draft.

• **Activate:** This will activate the study and move it to the next status (active). The button is only available once a complete study including the selection of all sources of resilience has been set up and all error messages have disappeared (a green message highlights if you are conducting enough household interviews to achieve 95% confidence). More details on error messages are explained in the corresponding section later. **Note that you cannot edit and modify the study after it has been activated** (a corresponding warning message will be displayed). Once a study has been activated, field workers will need to complete their questionnaires in the mobile App. Refer to the mobile App user guide.

• **Dashboard:** Takes you to the study overview dashboard, highlighting statistics on selected data collection – how many sources have been allocated to each questionnaire for a data collection method (for household) or bucket (for focus groups and key informants) to check for appropriate length of interviews, and how many data collection methods and buckets are used for each source to check for adequate data triangulation and work effort.

Note: The combination of creating pdf preview questionnaires and analysing the statistics in the dashboard allows you to check whether interviews have the right length and content.

• **Name of study:** Automatically generated by the system

• **Number of household interviews:** Enter the number of household interviews to be conducted here. When first entering the study setup, a suggested number of household interviews for 95% confidence will be displayed, based on a formula for statistical representativeness. If you change the number below this suggested number, a corresponding warning message will be displayed but still allow you to start the study.

• **Resilience sources tab:** Switch to the resilience sources tab to select the data collection methods for each source and review questions.

• **Work assignment tab:** Switch to the work assignment tab to allocate data collection methods, buckets for focus group discussions and key informant
interviews, choose online surveys, and assign the number of household interviews to field workers.

5.5 Data collection methods screen

In this screen, you will select one or several data collection methods, choosing from the four data collection methods available, for each of the 44 sources of resilience.

To better understand the source before selecting the input methods, hover over the source name with your mouse and the source definition will be displayed in a pop up window that disappears again as you move away the mouse cursor.

Hover over the source name to see the definition displayed.

In this screen, you have the following options:

- **View / hide sources:** Sources are grouped by capital and the view can be expanded or collapsed for ease of viewing and ordering the screen. Click the + sign on any capital to open / expand the menu to view the sources allocated to that capital. Click the – sign on any capital to close /collapse the sources and hide them from detailed view again.

- **Select the household method:** To allocate a household method for data collection to a source, where available, tick the corresponding check box. The box will appear as a white tick in the blue box. Click again to de-select the household method. The square will appear grey with a “not available” sign if that method is not available for a source.

**Note:** For each household interview to be started, a consent form will be displayed on fieldworkers’ smart devices to be acknowledged by the interviewee first. If no consent is given, the household interview is cancelled and a new one needs to be started in a different household.
Sample preview of the household consent form to be discussed at the beginning of each household interview.

- **Select the focus group method:** To allocate a focus group for data collection to a source, where available, tick the corresponding check box. A context menu will open which is explained in the corresponding section later. The box will appear as white tick in blue box when the focus group method and at least one bucket in it has been selected. To deselect the method, click it again and unselect all focus groups and save. The square will appear grey with a “not available” sign if that method is not available for a source.

- **Select the key informant method:** To allocate a key informant for data collection to a source, where available, tick the corresponding check box. A context menu will open which is explained in the corresponding section later. The box will appear as white tick in blue box when the key informant method and at least one bucket in it has been selected. To deselect the method, click it again and unselect all key informants and save. The square will appear grey with a “not available” sign if that method is not available for a source.

- **Select the secondary source method:** To allocate a secondary source for data collection to a source, where available, tick the corresponding check box. As this is used for data that is already known to be available, this method is allocated to project leaders themselves, which is explained in the corresponding section later. The square will appear grey with a “not available” sign if that method is not available for a source.

Select one or several of the data collection methods you find appropriate for the corresponding source. Further details on which data collection methods may be more or less appropriate for some sources and in some contexts are available in one or several of the following: In the source definition, in the assessment notes, in the training materials.
**Note:** Not all choices of input methods are available depending on the source. The square will appear grey with a “not available” sign when hovering over with your mouse if that method is not available for a particular source.

You will see error messages at the bottom of the screen until you have selected data collection methods for all sources, allocated all focus groups and key informants to field workers in the work assignment tab, and allocated the number of household interviews to field workers, or alternatively, input the number of required household interviews and select the expected survey return rate in the online survey, in the work assignment tab. Once all messages disappear, you can activate the study.
5.5.1 Managing household interviews

Household interviews are managed from this main study setup screen. Tick the corresponding box for each source where you want to conduct a household interview and where the household method is available for that source. Review the number of household interview field to ensure a representative number is selected.

**Note:** When selecting online surveys as a way of collecting data instead of sending field workers to physical meetings, in the case of the household data collection method, certain sources may not be available for online surveys (where they are available as a data method for field workers). There will be an error message on top of the screen when the user tries to save the study setup. Also, sources that are not available for household interviews in online survey mode show a corresponding icon. Either choose another data collection method for this source, or do not use online surveys for household surveys overall. You cannot mix online and field worker household questionnaires. See corresponding section on “work assignment”.

![Error messages and hint for online surveys in combination with household interview method](image)
5.5.2 Managing focus groups

Click the black-and-white icon for focus group, where available, to choose and manage a focus group to be used as method in a source. A context menu opens that presents you with the following choices:

- **Bucket assignment screen**: Clicking this button will take you to the screen where you can choose one or several different focus groups that will then all have to answer the corresponding questions for that source. Tick the box for the group(s) to use it for that source. Untick the box to de-select again. A choice of typical focus groups is presented to you for immediate selection. If none of the choices apply in your case, you can create your own in the custom buckets screen. **Note**: A “bucket” is an active focus group based on your choice to utilize that group for your data collection. When you choose the same focus group for another source again, the corresponding questions from there will be added to the questionnaire for that group and therefore form a “bucket”.

- **Custom buckets screen**: Clicking this button will take you to the screen where you can create your own, additional focus group. Click the edit line below “add bucket” to write the name of the new group and click the + sign on the right to add it to the available choices of focus groups. The bucket will become immediately available after adding and will remain available throughout your study setup for other sources also in the “bucket assignment” screen. You can delete your own custom groups you have created by clicking the – sign to the right of your custom group. Beware that you may be deleting a custom group that has already been selected in a different source.

- **Select all / deselect all** to quickly change your choices

Once you have selected the focus groups who will answer the questions for this source, click “Save” to return to the main data collection screen. The focus group box will now be active – a white tick in the blue box.

![Focus groups – bucket selection and custom buckets screens.](image-url)
5.5.3 Managing key informants

Click the black-and-white icon for Key Informants, where available, to choose and manage a key informant to be used as method in a source. A context menu opens that presents you with the following choices:

- **Bucket assignment screen**: Clicking this button will take you to the screen where you can choose one or several different key informants who will then all have to answer the corresponding questions for that source. Tick the box for the key informant(s) to use them for that source. Untick the box to de-select again. A choice of typical key informants is presented to you for immediate selection. If none of the choices apply in your case, you can create your own in the custom buckets screen. **Note**: A “bucket” is an active key informant based on your choice to utilize that informant for your data collection. When you choose the same key informant for another source again, the corresponding questions there will be added to the questionnaire for the key informant and form a “bucket”.

- **Custom buckets screen**: Clicking this button will take you to the screen where you can create your own, additional key informant. Click the edit line below “add bucket” to write the name of the new key informant and click the + sign on the right to add it to the available choices of key informants. The bucket will become immediately available after adding and will remain available throughout your study setup for other sources also in the “bucket assignment” screen. You can delete your own custom key informant you have created again by clicking the – sign to the right of your key informant.

Key informants – bucket selection and custom buckets screens.
5.5.4 Managing data from secondary sources
Secondary source data is managed from this main study setup screen. Tick the corresponding box for each source where you want to know data is already available for that source. This method is allocated to project leaders themselves and data is entered during the active study state in the corresponding screen. The square will appear grey with a “not available” sign if that method is not available for a source.

5.5.5 Error, hint and confirmation messages
The following set of messages can display during the study setup or when attempting to save the draft. A study cannot be activated unless all error messages are cleared.

- **Inconsistent input method and field worker selection:** There is a mismatch between the data input methods that you have selected, and the selection / allocation of field workers to data collection methods. Either input methods are selected to which no field workers have been allocated, or field workers have been allocated for methods that have no sources selected.

- **Online survey not available for that source:** For certain sources of resilience, an online survey feature cannot be offered for the household data collection method, although household is available generally as a method for that source. You either need to choose a different data collection method for that source, or you cannot conduct online surveys for the household data collection method should you want to collect this information from households. Note that you cannot mix online and fieldworker-based interviews for the household data collection method. This error message will display when attempting to save draft.

- **Incorrect number of household interviews allocated:** This error message is displayed when the total number of household surveys entered in the corresponding field does not match the sum of the household surveys allocated to all of the fieldworkers.

- **Hint: You are not going to collect enough household survey to reach 95% confidence level.** This screen is a warning screen highlighting the need to increase the number of household interviews at least up to the suggested number until the message turns green (95% confidence level).

- **Well done!** If you see this message displayed, you have set up a study in a way that lets you activate it. All technical system requirements have been met to progress to the next stage, data collection (Active study state).
5.5.6 Activating a study

Use the “activate” button to set a completely set up study to active and move it to the next status (active), the data collection status. The button is only available once the selection of data collection methods for all sources of resilience has been set up and all error messages have disappeared (a green message highlights if you are conducting enough household interviews to achieve 95% confidence).

**Note:** you cannot edit and modify the study once it has been activated. A corresponding confirmation message needs to be clicked to proceed.
5.6 Work assignment screen

In this screen you will be allocating the field workers to the various data collection methods and the corresponding buckets. You cannot activate a study before all field workers have been allocated work correctly.

To allocate field workers to each data collection method, switch between the four data collection methods in the tab at the top.

5.6.1 Household interviews: Allocating field workers or online surveys

In the household screen, choose between online surveys or sending field workers to conduct household interviews.

Online survey: Tick the box online survey if you want to conduct online surveys that household members in this community can fill out using a browser window on their computer or smart device. If you choose online survey, all household interviews must be conducted using this feature, you cannot combine this with field workers. Use the percentage slider to set the expected return rate of online surveys to create an appropriate number of online survey links.

Example: The required number of household interviews to achieve statistical representation at the 95% level is 64. You expect a return rate of online surveys of 25% (1 out of 4 surveys sent out will be returned). The system will therefore create 256 survey links that you can send out to householders living in that community in the active study state (see corresponding section on how to retrieve and send out online survey links).

Field worker selection: If you choose to conduct household interviews by sending field workers to discuss with householders, a list of your available field workers is displayed alongside an arrow field to increase / decrease the number of household surveys allocated to the field worker. Enter the desired number directly on the line, or click the arrows up or down to increase / decrease the number of interviews. When entering/changing the number, the field worker will automatically be ticked as selected. Untick to de-select this fieldworker. The error message “Incorrect number of household
interviews allocated” will disappear once the total number of household interviews allocated to your fieldworkers equals the number of household interviews to be conducted.

5.6.2 Focus group discussions: Allocating field workers or online surveys

In the focus group screen, a list of your selected focus groups for which you have allocated questionnaires is displayed alongside a drop down selection menu of your field workers. For each “bucket”, use the drop down menu to assign the one field worker who will go to that particular focus group and conduct the discussion.

If you want to allocate this bucket to an online survey, select the first entry “online survey” from the drop down menu. You are free to choose online surveys or field worker interviews separately for each bucket (e.g. you can send a field worker to the business group meeting but send an online survey to the teacher’s association meeting).
5.6.3 Key informant interviews: Allocating field workers or online surveys

In the key informant screen, a list of your selected key informants for which you have allocated questionnaires is displayed alongside a drop down selection menu of your field workers. For each “bucket”, use the drop down menu to assign the one field worker who will go to that particular key informant and conduct the interview.

If you want to allocate this bucket to an online survey, select the first entry “online survey” from the drop down menu. You are free to choose online surveys or field worker interviews separately for each bucket (e.g. you can send a field worker to the mayor but send an online survey to the head of the Civil Protection Office).

5.6.4 Allocating 2nd source to the project lead

In the 2nd source screen, you will see an overview of sources you have selected as a secondary information source and therefore have been automatically allocated to the project lead. This cannot be edited here (if you want to change the data method for a source away from 2nd source, you need to go back to the data input screen and change the method in the corresponding source).
5.7 The questionnaire preview screen

Click “preview” in the study setup screen to reach the questionnaire preview screen. In this screen you can preview the questionnaires in the order and by which theme they will appear on fieldworkers’ smart devices or on the online screen. It also allows you to create and download pdf documents to use when reviewing questionnaires in training and in situations where you feel it is more appropriate for fieldworkers to take notes on paper rather than directly typing answers into the mobile device during data collection.

**Note:** If you have made changes to the study setup, you need to click “save draft” first before the preview button is active.

The following screen lists the selected questions/answers by theme. Change the language from the drop down list to see the questions and answers in that corresponding language as they will appear in the mobile App. You can exit this screen by clicking on the study name in the breadcrumb navigation bar (or navigate to any other place in that hierarchy).

**Note:** You will find a set of “context questions” automatically added to each of the following data input methods: Household interviews, Focus Group discussions, Key Informant interviews. These are mandatory to be filled in during the data collection to better understand local context and details about the interviewee(s) and to enable the SAD (Sex, Age, Disability) disaggregation functionality in the Grading (see corresponding section). These context questionnaires cannot be de-selected but will automatically display in this preview screen and will also automatically transfer to the corresponding field worker App or online survey questionnaire.

5.7.1 Using the preview screen

At first, the preview screen will show the four data input methods and the community context questions, with content (questionnaires) collapsed. Click the + sign to expand any of the sections. Click the – sign to collapse any of the sections.
Once you have expanded a data collection method section, the themes for which questions are available in the method are displayed.

Click the + sign to expand any of the sections to see the individual questions. Click the – sign to collapse any of the questionnaire sections.
You can go back and continue to edit the study if you identify any changes that should be made after previewing the questionnaires in this screen. Once you are happy with all the changes and the study is completely set up, click the activate button to set the study to active – in this case, fieldworkers will get their allocated work on their associated smart devices (tablets or smart phones).

**Note:** It is suggested that you always preview before you activate a study. Once a study has been activated it cannot be edited again.

Change the language from the drop-down list to see the questions and answers in that corresponding language as they will appear in the mobile App or online survey, where that language has been completely translated and is available. You can exit this screen by clicking on Communities and then Edit Study for your corresponding community. You can also click on the back button in the browser to see the study again.
5.7.2 Creating a pdf questionnaire

There are two ways to create a set of pdf questionnaires based on your selection of data collection methods for the resilience sources:

- **Get PDF**: This creates a pdf document of the entire question/answer set for all data collection methods, ordered by theme.
- **PDF button for each data input method**: Click this button to create a separate pdf file for the corresponding data input method.

If the PDF file for the study preview is too large depending on the number of questions and the type of language chosen, it will be downloaded instead of shown in a new browser window (this is related to some browser limitations).
5.8 The study assignment dashboard

To access the study assignment dashboard, click dashboard from the main draft study setup screen. Ensure you save draft first if changes to the study setup have been made before the dashboard screen is accessible.

The study dashboard provides a statistical overview of

a) how many sources have been allocated to an interview questionnaire, either household or buckets of focus group meetings or key informant visits. This will provide you with an overview how many sources, and hence questions, each interviewee will be asked and whether this is appropriate for the context of the interview (right length or too long or too short). Use the horizontal count to check who is getting how many sources in an interview.

b) How much data triangulation is taking place for each source, i.e. how many data collection methods or buckets have been allocated to each source. Use the vertical count to check how many data points will be collected per source. One method per source is the absolute minimum to activate a study, but ideally there are resources for fieldworkers and online surveys available to conduct two or three per source.
Click the + and – to expand/collapse the details section for the focus groups and key informants.
5.9 Creating local custom questions

The system allows you to create your own, individual questions that can be added to the t-line study. This will help you avoid creating separate surveys for your community work and instead help you integrate it into your workstream for the flood resilience measurement of that community.

Click the “local questions” button in the study setup screen. This takes you to the question generator environment which will help you create consistent, complete and logical questions. For more information and details on how to operate the question generator to create your custom questions, see the corresponding section.

**Note:** Once you have created your custom questions, you **must go back** to the study setup and tick the corresponding source/method choices or unallocated custom questions set to add it to the study, **otherwise they will not appear!**

Local questions in the question generator environment screen.
5.10 Working with templates

Templates allow you to reuse the same data collection methods for the 44 sources of resilience for several or all your community studies instead of repeating the setup process of choosing methods for each source individually. Clicking the templates button opens a pop-up window that allows you to do two things:

**Save a study as template:** The current selection of data collection methods for resilience sources will be saved. In order to be able to save a study template, the study you are currently working on must be saved as draft. Otherwise you will see an error message to first save in draft.

**Load a study template:** When you create further studies in different communities, you will be able to load templates from a list that you have saved earlier, and the same data collection methods will be selected. From here, you can further refine / change data collection methods and continue in the study setup process.
6. Status overview

When clicking the status overview button in the community overview screen (available only when a community study is in status active), the following page will be displayed.

Here, you can access the created URL links for the online surveys, if used, and track progress for each of the elements of the study that have to be completed:

- **Community questions**: These context questions have to be filled in by the local project lead online. Note: It is important that already during community selection in your program you familiarize yourself with this questionnaire and the corresponding answers required. See your training manual on the application of the flood resilience measurement for communities for details. See corresponding section on community context questions for explanations how the screen works.

- **Field worker progress overview**: For each field worker who has received work on their mobile device, for each data collection method progress against completion is displayed. (e.g. 0/27 means 0 out of 27 questions have been answered). Whenever a field worker completes their work, the local project lead will receive a notification email to the saved email address.

- **Status of each work step**: For each of the work elements to be completed (questionnaires), either “active” (work outstanding) or “completed” (all questions answered and returned to the server) is displayed. The overall study status overview will move from active to grading only if all work steps have been completed.

**Note**: Questionnaires on the smart device can be completed by answering all questions, or by manually setting the study result to be completed by the field worker if they are unable to finish all the outstanding questions (this part of the survey will then remain empty despite it being returned to the server).
When a questionnaire is finished on the smart device or as an online survey and uploaded to the server, it is set to status completed and remains in this status indefinitely.

Questions allocated to “second source” must be answered by the local project lead online from the community study screen. Choose the context menu on the right and click “2nd Source Questions”.

![Image of questionnaire interface](image.png)
6.1 Handling online surveys

If online surveys have been selected as a way to conduct the data collection for any of the data collection methods, it is the local project lead’s responsibility to retrieve the URLs providing access to the online surveys through the active study status screen, and manage the allocation of respondents to each survey. This will be conducted outside of the FRMC through your organization’s own data management process using excel sheets, databases or other means.

The FRMC provides an excel list of all survey links created when the study was activated. Click “download online survey links” in the study status overview of an active study to download the URLs. Follow the separate training guidance provided on handling online surveys and to learn what to consider in terms of information that should be sent to the respondents alongside the URL, on how to obtain lists of potential respondents, on how to ensure data quality and security, how to ensure you know who has received which URL, etc.

The following conditions apply to online surveys:

- Each URL generated is for a single online survey respondent – one householder, focus group or key informant per URL only! If the same URL is shared with more than one person or group, they will access the same survey. Ensure that URLs are not shared beyond the respondent who should receive it / is responsible for entering the answers (in case of focus group discussion leaders).
- Online surveys are active for 30 days after the study has been initially activated and the survey link been created. After that time they will automatically expire and show a corresponding error message should the link still be used after that time.

Clicking download online survey links to generate an excel sheet download with the URLs for the online surveys.
The screenshots below show what the online questionnaire looks like for a respondent once they open the link sent to them by the FRMC project team member(s).
Assets

What actions could be taken to reduce the impacts of floods in this community? Please tick all options that apply.

Before clicking “Next” to display the answer choices, try to think for a moment about the question. Choose only those answers that came to your mind before reading the answer options. From the following categories, the answer categories are linked in order to capture a list of potential answers that came to your mind.

SHOW ANSWERS

If no actions are taken, do you think floods in the future will be better, the same or worse than they are now?

- Floods in the future will be better or worse than floods in the past.
- Floods in the future will be the same.
- I don’t know.

Thank you for taking the time to complete this survey on flood resilience in community 15 de Mayo. We truly value the information you have provided. Your responses will contribute to a better understanding of the strengths and the needs of this community.

As part of their analysis and work process, Organization Red Cross will review all the information and discuss opportunities and next steps with various stakeholders of the community.
6.2 Reviewing progress from fieldwork

Click the link “Review uploads” next to each field worker to see the progress they have been making. Data that has been collected and synchronized back to the server will be displayed here. This also shows the status of each online survey, if applicable. URL survey status include created, accessed, cancelled or completed.
Uploaded answers from panpfw31

**Household 1**

<table>
<thead>
<tr>
<th>Household Questions</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which of the following age groups do you fall into: 15-25, 25-50, or over 50?</td>
<td>15-25</td>
</tr>
<tr>
<td>What is your gender?</td>
<td>Female</td>
</tr>
<tr>
<td>In the case of a flood, would you have difficulty with any of the following: walking approximately 100 meters (300 feet) to evacuate? - hearing a flood alarm? - seeing, because of a visual impairment?</td>
<td>No to all</td>
</tr>
<tr>
<td>How many children under the age of 15 live in this household most of the time?</td>
<td>3</td>
</tr>
<tr>
<td>What is your highest level of completed education?</td>
<td>Attended secondary education but did not finish</td>
</tr>
<tr>
<td>How long have the members of the household lived in the community?</td>
<td>At least one adult household member was born in the community</td>
</tr>
<tr>
<td>What are the ways the members of this household obtain cash income? Please tick all options that apply</td>
<td>Agriculture - proceeds from sale of own farm products / income from assets such as property (land) or other investments</td>
</tr>
<tr>
<td>What is the biggest source of income for this household?</td>
<td>Agriculture - proceeds from sale of own farm products</td>
</tr>
<tr>
<td>Thinking about the national average monthly income, does this household earn significantly less, about the same, or significantly more per month than this?</td>
<td>About the same as the national average monthly income</td>
</tr>
<tr>
<td>In the last 10 years, how many times have there been floods in your community?</td>
<td>1 flood in the last 10 years</td>
</tr>
</tbody>
</table>

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7. Grading

The grading screen is accessible from the community overview screen for studies that have progressed to status ‘active’ or ‘grading’. It is thus possible to grade studies with no or only partially returned data. However it is preferred to start the grading process only once a study is in “grading” status. Grading can be reviewed in a read-only screen once grading has been set to complete. This allows project leads to still review completed answers and use the statistics screens in the grading environment. However, no changes can be made.

7.1 Grading overview screen

Click “Edit Grading” from the context menu to the right of the study to access the grading overview screen.

The following grading page will be displayed if data collection for a study is complete.

A warning message will be displayed if you are accessing the grading screen before data collection is completed:

**Note:** The system will physically allow you to grade the resilience sources even though not all the data has been returned from the fieldworkers’ smartphones. You will receive the corresponding warning message below. Please ensure you take into account any new data that might come in, as visible by the (new changes) yellow highlighted message as you enter into the grading screen.
Use the + and – buttons in front of each capital to expand / collapse the section and view the individual sources that need to be graded underneath each capital. The numbers to the right of the Resilience Sources indicate the progress against the total number of sources to grade. In the example below, 0 of 44 sources have been graded.

Once progress in grading is made, you will see this from the grading overview screen as per the example below, where 2/44 sources (the two in human capital) have already been graded. Grades are displayed in the “Grade” column on the right of the screen.
7.2 Grading screen

You can enter the screen to grade any source by clicking anywhere on the line of the corresponding source name. The following screen, where the grading for a source takes place, will be displayed including source and A through D grade definitions and assessment notes.

7.2.1 Navigating the grading screen

The breadcrumb navigation bar at the top allows you to identify the source that you are currently grading, which study this belongs to, and which community this study belongs to. You can move to a different location by clicking the link in the breadcrumb navigation, which will take you back to the grading overview, the community overview, or the community screen.

Below, the five lenses of resilience are displayed (DRM cycle, Capital, 4R, Theme and Context), to which category of each of the lenses the currently active source belongs to, and additionally whether this source belongs to the political and the SAD subscore. SAD and political will be only displayed if the source belongs to them.

Below is the back / forward navigation pane where the currently active source and its position relative to the total number of sources in that capital is displayed. The back / forward arrow buttons will turn active (blue) once all required fields in the grading screen have been completed and you can move back / forward to grade the next
(previous) source. Depending on your screen size, you need to scroll down to display further fields and functions in the grading screen. At the bottom, the overview of the collected answers is displayed. Use the + and – buttons to expand / collapse the answers. Sometimes a smaller font size (View → Zoom) in the browser settings may be needed to display all features of the page correctly.

The following fields are mandatory and must be filled in to move on to grade the next source:

- **Grade**: Pick the correct A, B, C or D grade based on the definition provided.
- **Rationale**: Provide a short explanation as to why that grade was selected. *Provide this rationale always in English, irrespective of the local language the community is located in.*
- **Confidence**: Tick Yes / No to indicate whether you were confident grading this source.
- **Relevance**: Tick Yes/No to indicate whether you feel this source is relevant for flood resilience in this particular community context that you are working in.

The following fields are optional and are not required to be filled in to move on to grade the next source:

- **Comments**: Enter any comments you feel relevant or helpful to explain the background of the grading for this source. *Provide the comments always in English, irrespective of the local language the community is located in.*

### 7.2.2 Using the data screen

In the data screen, depending on which data collection method was used to get the data for a particular source, you can view the data in aggregated (all responses) or disaggregated (responses split out by certain groups) form. Use the + and – signs on the right of the collection method to display (expand) or hide (collapse) individual collection methods.

As standard, a histogram with no disaggregation pre-selected will be displayed for household questions. Click the drop-down menu to choose your disaggregation view. Disaggregation is available along the following axes: Gender, Age, and Disability. You may need to adjust screen size or display size in the browser (use +, - or View from the browser menu) to fit the category legends so they correctly display. Hover over each response bar to see the text display explaining the detail of each option in the histogram.
### 7.2.3 Additional answers screen

From the data screen, a blue button “additional answers” is available that will display additional data should local custom questions have been generated and mapped to this particular source. In situations where no local custom questions have been assigned to this source, the screen will be empty.

### 7.2.4 Additional answer information text balloon

From the grading screen, you can toggle on the “show additional answer information” toggle. This will create small text balloons in those answers where fieldworkers have entered additional free text as context information to any reply given to an answer during the fieldwork.
### 7.3 Grading a t>0 study and explain differentials

Remember that once you completed a grading for an additional t-line study after the t0 study, you will be asked to explain the grades you have selected, as we are not just interested in the absolute grades but in the grade differentials since the last t-line study was conducted. This was explained in the “study status” overview earlier.
8. Results

Once a study has been completely graded and set complete, the context menu in the community details screen provides a results button, which will display the following screen.

This is an initial numeric overview of the grading results. In addition to viewing the study results in numeric / tabular form here, the following options are available:

- **See in data cockpit:** This takes you directly to the single study cockpit view to display the study results interactively in various graphs. Results are displayed by lenses, i.e. the five capitals, the two community contexts, the 4Rs, the 7 themes, the DRM cycle as well as the two subscores, the political and the SAD-specific subscore.

- **Research model:** If you have created your own customized resilience framework model or adapted the standard one, or if colleagues in your organization have customized one and made it available, you can select it here. Results will be adapted based on the research model used.
9. Post Event Studies

9.1 Setting up post event studies

From the community setup screen, click “post event study” to get to the study setup screen for a post event study. Depending on the states of prior studies, the post-event study creation button may not display.

The study setup works in the same way as setting up a t-line study. Note that as household surveys are not available as selections, you need to set the “number of household interviews” to 0.

9.2 Status overview of post event studies

The status overview button works similar to the t-line status overview. However, the community context questions are not required for this type of study and thus no corresponding status update is available.

9.3 Grading the post event studies

The grading of post event studies works similar to t-line grading. However, note the first three outcome indicators of post-event studies are for context purposes and are not graded. They do not show up in the grading screen.

9.4 Viewing results of post event studies

Read the sections “data cockpit status” and “data cockpit” in this help guide first.

Go to the data cockpit status. On the right side of the screen, toggle the “post event studies” to the right to be able to select from available, completed post-event studies for viewing in the data cockpit.
Select one or several post event studies available and click “view data”.

The data cockpit opens in a new window to show you the post-flood results compared to the last t-line study results available from that community. There are three views available. Choose either context, revealed resilience or theme from the drop-down.

Similar to the t-line data cockpit, you can view several post-floods side by side, or you can aggregate results by organization or country.
10. Using the local question generator

This feature, accessed from the button “local questions” in the study setup screen, allows local project leads to create their own custom questions (and corresponding answer types and answer choices) and add them to studies. This helps them avoid creating additional procedures for setting up interviews etc., but allows to flexibly integrate a project’s further data collection needs into the process of collecting data for the FRMC.

It is advised that local questions (and answers) are written in the local language in which the study will be used. Contrary to the standard questions, which have corresponding local language available in the languages selectable in the system, local questions are not translated from English to the local language and there is no automatic translation feature available. As such, local questions will show up on fieldworker devices “as-is”, i.e. in the way they were written here.

Custom questions can be allocated as follows:

- Fully independent of the FRMC framework – without assigning custom questions to a particular source. All these questions will be added to an additional “custom questions” theme at the end of the corresponding data collection method questionnaires. These questions will be stored in the raw database for a study and can be downloaded and used outside of the FRMC for the project’s additional data needs.
- Mapped to a source – custom questions that project leads chose to map to a source will be added to the end of a theme of the corresponding data collection method questionnaires so they logically follow in sequence with other questions for that source. These questions will be stored in the raw database for a study next to the other raw data of a source and will additionally be viewable in the grading screen using the “additional data” button in the answers section (see corresponding section).

Note: Always remember to go back to the study setup and activate corresponding local questions by choosing the right source / custom question set and ticking them on.
10.1 Navigating the main screen

In order to create a new question and provide answers that will be displayed in the mobile App when collecting data, the following options are available:

- **Input Method**: Choose the desired data input method for the question first. Note that this choice will be “remembered” when you add subsequent questions – you need to select / change the input method first before adding a new question or you may end up adding questions to an undesired input method. To learn more about input methods, see the main study setup screen and refer to the info pop ups there for each method.

- **Add question**: Once the desired input method has been selected, press this button to access the screen where new question/answer pairs can be created.

- **Sort questions**: Allows you to sort the order of the questions for each input method.

Data input method selection in local questions.

10.2 Adding questions

Once you click the add question button, the following screen will be displayed.

Add new question screen
• **Select answer type:** You will have to decide first what answer type this question will require, and choose from the drop-down menu accordingly. Refer to the info pop up window to learn more about these answer types and how they work.

### 10.2.1 Option

An option-type question provides a number of radio-button options for the respondent to choose from. Only one of the available options can be chosen by the respondent.

The following fields are available to generate a custom option-type question:

- **Enter question text:** Enter the text of the question in this field. This field is mandatory. A maximum of 500 characters is allowed, after which the field will stop accepting text. When copy-pasting from e.g. a word or excel document where you may already have written your desired custom question, double-check that nothing has been cut-off half way.

- **Enter additional explanatory text:** Here you can explain background or context to the field worker - this text will be displayed in the mobile App as well. This field is optional. A maximum of 3000 characters is allowed, after which the field will stop accepting text. When copy-pasting from e.g. a word or excel document where you may already have written your desired custom question, double-check that nothing has been cut-off half way.

- **Select amount of options:** Choose the number of options that you will make available. You can choose from 2 to 11 from the drop-down. Note there are additional quality control checks associated to this question type, e.g. ensuring you provide a “I don’t know” answer option to Yes/No questions, etc. This field is mandatory.

- **Enter option:** Enter the first answer option that matches your question. Repeat this process for the subsequent fields until all your options based on your choice have been filled. These fields are mandatory. A maximum of 160 characters is allowed per option, after which the field will stop accepting text. When copy-pasting from e.g. a word or excel document where you may already have written...
your desired custom question, double-check that nothing has been cut-off halfway.

- **Enter Unit**: If you provide a set of numeric answer options, or more likely, you are providing options with a range of numeric answers (e.g. “How old are you” could be an option-type, which answers providing age bands from “younger than 15”, “15-50”, “older than 50”, you need to enter a unit so the provided numeric answers are in the right context. This field is optional.

- **Select resilience source**: In this drop-down menu, you can choose to map this custom question to an existing resilience source. Note that if you choose to map your local question to a source, it will be added in the corresponding position in the questionnaires. If you choose to not map your local question to a source (i.e. leave this field empty), it will be added outside of the sources to your “local questions” questionnaire. This field is optional.

- **Save**: Once all required fields have been completed you can save the local question. Depending on your choices, a warning message will appear for quality control purposes of your question. For example, you need to ensure that your answer options are covering the full range of potential options somebody would want to give. This is especially important for option and multi types, as you may miss a range or option that people will answer. Ensure that for such cases you provide options like “I don’t know”, “Other”, “Does not apply”, etc.
Add question screen with option selected – 3 answer options provided

Warning message before saving the new question/answers set.
10.2.2 Multi

A multi-type question provides a number of tick box options for the respondent to choose from. Any combinations of answers can be ticked for this question type (one, two, several, all). At least one option must be chosen to complete this question.

The following fields are available to generate a custom multi-type question:

- **Enter question text**: Enter the text of the question in this field. This field is mandatory. When you finish writing your question (ending in a question mark ?), you will receive a notification message that a sentence has been added at the end “Please tick all options that apply”. This ensures consistency that the same text is displayed whenever a local multi-type question is asked. A maximum of 500 characters is allowed, after which the field will stop accepting text. When copy-pasting from e.g. a word or excel document where you may already have written your desired custom question, double-check that nothing has been cut-off half way.

- **Enter additional explanatory text**: Here you can explain background or context to the field worker - this text will be displayed in the mobile App as well. This field is optional. A maximum of 3000 characters is allowed, after which the field will stop accepting text. When copy-pasting from e.g. a word or excel document where you may already have written your desired custom question, double-check that nothing has been cut-off half way.

- **Select amount of options**: Choose the number of options that you will make available. You can choose from 2 to 11 from the drop-down. Note there are additional quality control checks associated to this question type, e.g. ensuring you provide a “I don’t know” answer option to Yes/No questions, etc. This field is mandatory.

- **Enter option**: Enter the first answer option that matches your question. Repeat this process for the subsequent fields until all your options based on your choice have been filled. These fields are mandatory. A maximum of 160 characters is allowed, after which the field will stop accepting text. When copy-pasting from e.g. a word or excel document where you may already have written your desired custom question, double-check that nothing has been cut-off half way.

- **Enter Unit**: If you provide a set of numeric answer options, or more likely, you are providing options with a range of numeric answers (e.g. “How old are you” could be an option-type, which answers providing age bands from “younger than 15”, “15-50”, “older than 50”, you need to enter a unit so the provided numeric answers are in the right context. This field is optional.

- **Select resilience source**: In this drop-down menu, you can choose to map this custom question to an existing resilience source. Note that if you choose to map your local question to a source, it will be added in the corresponding position in the questionnaires. If you choose to not map your local question to a source (i.e. leave this field empty), it will be added outside of the sources to your “local questions” questionnaire. This field is optional.

- **Save**: Once all required fields have been completed you can save the local question. Depending on your choices, a warning message will appear for quality control purposes of your question. For example, you need to ensure that your answer options are covering the full range of potential options somebody would
want to give. This is especially important for option and multi types, as you may miss a range or option that people will answer. Ensure that for such cases you provide options like “I don’t know”, “Other”, “Does not apply”, etc.

10.2.3 Numeric
A numeric type question will expect a number as an answer.
The following fields are available to generate a custom numeric-type question:

- **Enter question text:** Enter the text of the question in this field. This field is mandatory. The system already suggests you start this question with “How many…”. A maximum of 500 characters is allowed, after which the field will stop accepting text. When copy-pasting from e.g. a word or excel document where you may already have written your desired custom question, double-check that nothing has been cut-off half way.

- **Enter additional explanatory text:** Here you can explain background or context to the field worker - this text will be displayed in the mobile App as well. This field is optional. A maximum of 3000 characters is allowed, after which the field will stop accepting text. When copy-pasting from e.g. a word or excel document where you may already have written your desired custom question, double-check that nothing has been cut-off half way.

- **Select unit:** Although this field is optional, when using numeric questions it is strongly recommended that you use a unit so the number that will be provided as an answer can actually be understood. This unit should match the question text – in the example it is years. Note: If you do not provide a unit, and the question is not asking “How many years…” (countable) but rather “How long” (uncountable), it will be unclear what an answer of “5” really means.

- **Select resilience source:** In this drop-down menu, you can choose to map this custom question to an existing resilience source. Note that if you choose to map your local question to a source, it will be added in the corresponding position in the questionnaires. If you choose to not map your local question to a source (i.e. leave this field empty), it will be added outside of the sources to your “local questions” questionnaire. This field is optional.

- **Save:** Once all required fields have been completed you can save the local question. Depending on your choices, a warning message will appear for quality control purposes of your question.
10.2.4 Percentage

A percentage type question will create a slider in the App that can be shifted from 0 to 100 percent.

The following fields are available to generate a custom percentage-type question:

- **Enter question text:** Enter the text of the question in this field. This field is mandatory. The system already suggests you start this question with “What percentage…”. A maximum of 500 characters is allowed, after which the field will stop accepting text. When copy-pasting from e.g. a word or excel document where you may already have written your desired custom question, double-check that nothing has been cut-off half way.

- **Enter additional explanatory text:** Here you can explain background or context to the field worker - this text will be displayed in the mobile App as well. This field is optional. A maximum of 3000 characters is allowed, after which the field will stop accepting text. When copy-pasting from e.g. a word or excel document where you may already have written your desired custom question, double-check that nothing has been cut-off half way.

- **Select resilience source:** In this drop-down menu, you can choose to map this custom question to an existing resilience source. Note that if you choose to map your local question to a source, it will be added in the corresponding position in the questionnaires. If you choose to not map your local question to a source (i.e. leave this field empty), it will be added outside of the sources to your "local questions" questionnaire. This field is optional.

- **Save:** Once all required fields have been completed you can save the local question. Depending on your choices, a warning message will appear for quality control purposes of your question.
10.2.5 Free text
A free text type question will generate a free text field, limited to 10’000 characters, into which a text based answer can be written. If you select this type question, a warning message will be displayed, as this type of question is really hard to analyze. This is especially true if you are selecting free text in combination with the household interview input method – remember, this will generate n number of questionnaires for a representative statistical sample of the total number of households N in that community, and thus each free text household question will generate n replies that you need to individually look at.
10.3 Reviewing and editing questions

Once you have populated a series of local questions, you can review and edit them. Again, you have to choose your data input method first to see a list of the questions you have created. Click on one of the questions, and a details box appears on the right.

The following options are available:

- **Edit**: Click the pen symbol to edit and revise your question and corresponding answers per sections explained above.
- **Delete**: Click the waste bin symbol to delete the selected custom question. A confirmation window will pop up where you need to confirm you really want to delete this question and all associated answers.
10.4 Sorting questions

Choose the desired input methods to display the list of available questions. Use drag and drop to sort these questions to the desired final order for the local questionnaire that will be generated.
10.5 Adding local questions to the study

Once all your local custom questions are complete, use the breadcrumb navigation pane at the top to go back to your study setup. Those local questions you have generated but not allocated to a resilience source show up in a pane below the 5 capitals called “local questions” (the others will show up in the corresponding question preview of that source using the “show question” toggle and the preview functionality incl. the pdf functionality).

Use the + sign to expand the local questions section to see your entry for custom questions. Use the – sign to collapse the section. You will still have to select the corresponding data input methods to add the custom questions to the study – they will not automatically be added when you create them in the local question environment. Tick the methods that are available based on your local questions that you wish to use in this study.
11. Model Management

The model management customization feature is available from the main navigation pane at the top of the tool.

The following main model management screen will be displayed, listing the models that are available depending on your user rights and organizational environment (models are attributed to users and to organizations).

- **Organization**: Use this drop down to select the organization for which you want to list available models.
- **Create new model**: Takes you to the screen where new models can be created.
- **Organization public**: Toggle this switch to publish a model, which is otherwise only associated with a user, to the entire organization this model belongs to. This toggle is only active for trainers and administrators.
- **Application public**: Toggle this switch to publish a model, which is otherwise associated with a user and potentially with an organization, to the entire FRMC application. This toggle is only active for administrators.
- **Model overview**: Click the arrow button to enter the specific model and its parameters.
- **Delete model**: Will delete the model. The availability of this button depends on your user rights.

<table>
<thead>
<tr>
<th>Name</th>
<th>Owner</th>
<th>Organization Public</th>
<th>Application Public</th>
<th>Action</th>
</tr>
</thead>
<tbody>
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<td></td>
<td></td>
</tr>
<tr>
<td>Different KBo</td>
<td>Learn Ltd</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Text 1</td>
<td>Learn Ltd</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Text 2</td>
<td>Learn Ltd</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
11.1 Creating a new custom model

To create a new custom model, click the “create new model” button. A context menu asks you to provide a name for the new model, and depending on availability, lets you create the new model based on the properties of another, already existing custom model.

Enter a name and click save to create the new model.

The new model will show up in the list. Use the arrow button to enter the model.

11.2 Customizing your model

Use the arrow button to enter the model you want to customize. The following screen displays.

The following options are available:

- **Manage categories**: In this screen you can add new model categories (i.e. lenses of resilience) alongside the existing ones of Capital, Context, DRM Cycle, 4R and Theme, or add and change the existing entries in each category.
- **Edit**: Edit the attributions of the resilience sources. Add or change the attributes a source belongs to, i.e. manage the entries for each category that a source belongs to as well as its weight.
- **Save**: Saves the changes you made to the model.

### 11.2.1 Managing categories

The following screen is displayed for managing model categories:

The following options are available in this screen:

- **Add category**: Add a new category to your model. Provide a name for the category in the pop up window, such as BRACED, or OXFAM capacities, etc.
- **Add entry**: Add an entry to the existing category.
- **Edit category**: Change the name of the category.
- **Delete category**: Delete the entire category with all its entries from the model. Note: You cannot edit or delete the capital category.

Click the + and – buttons to expand and collapse the individual categories to see the entries underneath.
Once you have created a new category, you will need to create entries in that category by clicking “add entry”. Repeat until all your entries in that category are complete, like below.

Exit the category management and go back to your model management by using the breadcrumb navigation in the top pane.

You will now see the changes to your model: For the new category, a respective column has been created in your custom model.
11.2.2 Editing source attributes

For the categories where you have added entries, these are available as a choice option when attributing entries to resilience sources. In order to complete your model, you now must map all the 45 resilience sources to the corresponding entry for each category. Use the “edit source” pen button and complete the selections in the following window for each of the resilience sources.

In this window you also have the choice to change the weight of the source between 1 (full weight) and 0 (exclude the source from the scoring) as a slider. This will influence the relative weight of the source grade in your scoring and in the display of results in the data cockpit for your local model. Note: The fixed Zurich Flood Resilience Alliance FRMC model and the export of the data to the database will not be affected by your local model.
Continue until all sources have been mapped to the full spectrum of your custom model.

Ensure you save the model before navigating away from the model view. If there is unsaved data when trying to do so, a reminder will ask you what you want to do:
There is unsaved data. Do you really want leave model view?
11.3 Using the model in results and data cockpit view

Select your local custom model in the drop down of the results screen to display results according to the mapping of your model. The scoring will be reflective of your weight changes to the sources. Your custom categories will be showing the scores according to their entries.

Overall Score: 50

Select your local custom model from the drop down in the data cockpit screen. The results will be reflective of your local model mapping.
Select your custom categories from the drop down of the categories below to generate bar charts and other visualizations according to the entries in your custom categories.
12. Data Cockpit Status

From the main navigation bar, choose data cockpit to reach the data cockpit status overview screen shown below. This is the access point to select individual studies or sets of studies to visualize the grading results.

The following options are available in this screen:

- **Filtering/selection on the world map**: All communities with completed studies that can be reviewed are displayed on the world map. Click on an individual community to mark it. Use the CTRL key if you want to select / deselect more than one community. The filter list below will update automatically to your selection. Use the +/- zoom functionality on the left to change the world map view. Click and drag in the map to move around.

- **Filtering using the list**: You can filter the community list with completed studies using the search text, the organization tick list and the country tick list.

- **Reset filter**: This resets any filter you may have already applied and displays the full available list.

- **Timeline filter**: This slider lets you narrow down the list of communities by the time the studies were completed. Use the left slider to set the minimum date when a study was completed. Use the right slider to set the maximum date when a study was completed.

- **Selecting studies for viewing**: Based on the list of communities displayed, select single or multiple studies by first clicking the + sign of the corresponding community to see a list of completed studies associated with that community. Tick the box of the study that you want to add to the visualization. Once you are satisfied with the selection, click the “display data” button. A new window with the selected visualization will open.

- **Data aggregation drop-down**: Select either “None”, “Country” or “Organization” to aggregate multiple selection in the corresponding order. For example, selecting four studies, two from Nepal and two from Mexico (depending on your user rights) and selecting “Country” as an aggregation, two averages will be shown in the visualization – the Nepal aggregate against the Mexico aggregate.

- **View data**: Once you have filtered and selected the community studies to be displayed, click view data and a new window opens the data cockpit itself where you can visualize the results.

**Note**: Filters can be used additively (AND-logic), i.e. you can combine the free text of the search filter with the country and/or the organization and/or the role filter and only those results matching all filter criteria will be displayed.
Cockpit Status Overview basic screen

<table>
<thead>
<tr>
<th>Name</th>
<th>Lat/Lon</th>
<th>Organization</th>
<th>Country</th>
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<tbody>
<tr>
<td>Benjaryia, Dharmi gur, Kalahi</td>
<td>28.849232 / 81.06225</td>
<td>Practical Action</td>
<td>Nepal</td>
</tr>
<tr>
<td>T9</td>
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<tr>
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<td>2018-05-04</td>
<td>2018-05-04</td>
<td></td>
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<tr>
<td>T9</td>
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</tr>
</tbody>
</table>

Cockpit Status Overview – screen with community studies expanded and sets of T0 studies selected.
13. Data Cockpit

Once a selection of completed studies for visualization has been made in the Data Cockpit Status Overview screen and the button “display data” has been selected, a new window opens that visualizes the resilience measurement results.

13.1 Single study visualization

The following graphs and tables will be displayed for a standard visualization of a single study:

- Comparison of the results of that single study (T1 has been selected in the example below, at right) compared to the average aggregate results of that community (For Torno Largo, a T0 and a T1 study is available and the average is shown at left).
- A bar chart of scores for the selected category / resilience lens.
- A drill down of the category / lenses to display the individual sources belonging to that category / lens and their quantitative score. Click any of the lenses in each category, and the graph dynamically adjusts to present the content of that category. Click “back to X” with X representing the study displayed to return to the category view.
- A numerical table showing the score of the corresponding category entry.
- Distribution of A, B, C and D grades per category entry as a percentage of the overall score in that entry.
The following options are available:

- **Categories:** Select the resilience lens or category by which you want to get the results visualized. As a default, the capital view will be shown when entering the data cockpit. You can select Capital, 4R, DRM cycle, 7 themes or community context as category, or you can display the political or the SAD specific subscore (each composed of a set of resilience sources that have been either marked as “political” or “SAD specific” or both), or your custom categories if you are working with your custom research model.
**Graph context menu:** This allows you to create picture files or a pdf file of the chart/graph currently displayed.

**Research Model:** This allows you to display results according to custom research models if you have created some or if some have been made available to your organization.

### 13.2 Multiple study visualization – not aggregated

If you have selected multiple completed studies in the data cockpit overview screen without data aggregation, all studies will be shown side by side in the visualization screen. The same options as in the single study visualization are available. There is no immediate limit to how many studies you can select and compare side by side, but legibility will decrease with an increasing number of studies selected.

To change the display, e.g. to increase readability, temporarily, you can hide / unhide any study bar graph by unclicking / clicking the corresponding study in the legend below the bars. The bar chart will update interactively based on your selection.
Example of the bar charts for the five capitals lens for a set of seven t-line studies.

The drill-down functionality in the graphs is also available for multiple studies being viewed side by side. Click the category element (e.g. Financial) to drill down into this element for results of all selected studies. Click only the result of an individual study in the graph to just drill down into that study.

When selecting multiple community studies to view side by side, an additional bar chart indicating the result for each study, arranged by community, is displayed at the bottom of the visualization page.

The data is also available in table format. Depending on how many community studies have been selected to view side by side, legibility in the system may be limited. However, these tables are formatted to copy-paste directly into Excel. Simply select the entire table and copy across and paste into a new Excel sheet.
13.3 Multiple study visualization – aggregated

If you have selected multiple completed studies in the data cockpit overview screen and selected one of the two aggregation methods, aggregated results broken down by lenses / views will be shown. Note that drill down is not available in aggregated view.

![Diagram showing multiple study visualization]
14. Data Export

Use the data export functionality ("download all questions and given answers") from the lower left of the main community screen to reach the screen displayed below.

All the data from the studies displayed in the table will be written to a .csv file that you can download for further data processing or individual visualization.

In order to modify the table to only receive the data necessary for your particular purpose, use the filter features as follows:

- **Search text**: Enter a text that needs to be present in the study name or ID for it to remain in the list
- **Timeline**: Use the multiple choice tick box options to only display studies belonging to certain timelines (T0, T1 etc.)
- **Country**: Use the multiple choice tick box options to only display studies belonging to certain countries.
- **Organization**: Use the multiple choice tick box options to only display studies belonging to certain organizations.
- **Study Status**: Filter by study status to download data from studies in active, grading and/or completed status.
- **Start date begin**: Use the calendar to set the lower cutoff date when a study was started.
- **Start date end**: Use the calendar to set the upper cutoff date when a study was started. In other words: A study must have been started inside the bracket of the start date begin and the start date end date.
- **End date begin**: Use the calendar to set the lower cutoff date when a study was finished.
- **End date end**: Use the calendar to set the upper cutoff date when a study was finished. In other words: A study must have been completed inside the bracket of the end date begin and the end date end.
15. Admin Backend

For admins only.

16. Admin Mailing

For admins only.
# 17. Admin Backups

For admins only.

<table>
<thead>
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<th>Backups</th>
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