Health Accounts Production Tool (HAPT)

User guide

September 2024

About this document

Health accounts (HA) are a vital health policy instrument produced in over 100 countries globally. However, the complexity of HA methods has hindered the routine, consistent, and cost-effective production of HA in many countries. Numerous low-income countries depend heavily on foreign technical assistance. In addition, inadequate documentation and inconsistent estimation methods compromise data comparability and prevent countries from successful institutionalization of HA, and from regularly producing and using high-quality data.

Developed with over 20 years of World Health Organization experience in working with countries, the Health Accounts Production Tool (HAPT) is a global health expenditure data management tool designed to streamline and simplify the HA production process by using the international System of Health Accounts (SHA) 2011 methodology.

The new online HAPT is a new generation of tool that aims to assist countries at various stages of the HA production process. It provides step-by-step guidance for producing and reviewing HA studies. It increases result quality and applicability and offers the flexibility needed to meet future needs. Equipped with advanced technologies, the newest version of HAPT handles large datasets, manages disparate expenditure data files, incorporates interactive flow charts for visualizing funding flows, and features a survey function optimizing data collection. Further, it includes a survey data weighting option and defines distinct user roles and permissions, which allows HA team members to work on the same study at the same time. An integrated auditing function facilitates review and correction of double counting, and an enhanced data mapping feature automatically matches International Classification of Diseases codes to the 2011 SHA Disease Classification, eliminating the manual conversion of codes before data import. For users with low internet bandwidth, HAPT has an offline version with similar functionality. These and other developments eliminate the need to use other tools for HA production.

The objective of this document is to give comprehensive overview of HAPT. This manual is designed to serve as a guide to help country teams produce HA estimations using HAPT. It walks users through each of the tool's steps.

All screenshots and examples given in this document are for demonstration purposes only, and do not have any relation to real data.

Contents

List of abbreviations

2FA	Two-factor authentication
BEN	Classification of beneficiary
CU	Country user
DIS	Diseases and conditions (classification in SHA 2011)
FA	Financing agents (classification in SHA 2011)
FP	Factors of provision (classification in SHA 2011)
FS	Revenue of health financing schemes
HA	Health accounts
HAPT	Health Accounts Production Tool
HC	Health care functions (classification in SHA 2011)
HF	Financing schemes (classification in SHA 2011)
HK	Capital account
HP	Health care providers (classification in SHA 2011)
ICD	International Classification of Diseases
ICHA	International Classifications of Health Accounts
ISIC	International Standard Industry Classification of All Economic Activities
MoH	Ministry of health (also MOH)
NGO	Nongovernmental organization
NHA	National health accounts
PO	Programme owner
QR code	Quality response code
SHA	System of Health Accounts 2011

SNL	Subnational region or level
TL	Team lead or leader
TM	Team member
UI	User interface
WHO	World Health Organization

1. About HAPT

In response to the growing demands for internationally comparable information on health spending, the Organisation for Economic Co-operation and Development, the World Health Organization (WHO) and Eurostat developed the manual, a System of Health Accounts 2011 (SHA 2011), which was released in October 2011. SHA sets out an integrated system of comprehensive and internationally comparable accounts and provides a uniform framework of basic accounting rules and a set of standard tables for reporting health expenditure data. It is a methodology that tracks public and private expenditures on health in a given country, and illustrates the flow of funds from financing sources to agents, providers and ultimate services on which they are spent. The manual sets out in more detail the boundaries, the definitions and the concepts of health accounting – responding to health care systems around the globe with very different organizational and financing arrangements.

HA is designed to provide health expenditure information to policy-makers and stakeholders in ways that can be clearly and directly linked to a country's health financing challenges and health system performance and therefore has been accepted as a critical policy tool in many countries. The implementation of SHA requires political commitment, clear institutional responsibility, and cooperation at the national level between institutions with relevant data sources.

In many countries, the complexity of the methodology has been an important deterrent to routine, consistent, and low-cost production of health account (HA) estimates. Many low-income countries have come to rely heavily on foreign technical assistance to implement HAs. Documentation of the methods used is often inadequate and estimation techniques vary from year to year, which compromises the comparability of various HAs. Together, these challenges have prevented countries from successfully institutionalizing HA (i.e. routinely producing and using high-quality HA data).

The Health Accounts Production Tool (HAPT) provides a global platform to enable health expenditure management based on the SHA 2011 methodology. HAPT provides global features to streamline and simplify the HA estimation process, and aims to increase the quality and applicability of the data produced as a regular part of a country's efforts to monitor and improve health system performance.

HAPT is now more flexible and has more useful features to produce HA in a country.

Advanced technology

HAPT can manage large datasets, which reduces the burden of editing, sharing, and keeping track of multiple disparate files of expenditure data.

It uses user-engaging web forms to capture data instead of, as before, Excel files. This removes the need for version control.

Its offline capability enables users to fill surveys without relying on continuous internet connectivity. Further, storage of past HA estimations allows countries to update the numbers while maintaining country-specific classifications and assumptions.

Complete analysis with reporting capabilities

Step-by-step directions guide country teams through the HA production process and analysis.

Automatic generation of standard HA output tables after analysis has completed eliminates this time-consuming step from the estimation process.

Interactive flow diagrams help HA teams visualize and analyse funding flows.

HAPT has extensive reporting capabilities, and can output more than 200 preconfigured reports.

HAPT helps with cross-year analysis on health expenditures tracked under different dimensions of the SHA framework for a country. It eliminates the need for other tools.

Accommodation of updates in SHA framework

Allows studies to be customized, including applying updates in methodology, without affecting previous data.

Customization and storage of HA codes allow for easy reference during the analysis and mapping stages.

Improved data collection

Its survey function streamlines data collection and data analysis. As noted. it uses user-engaging web forms to capture data, removing the need for manging large numbers of Excel files.

It has an option to apply weighting to survey data from nongovernmental organizations (NGOs), employers, and insurance companies, which improves the precision of expenditure estimates

Engaging different stakeholders

It has different user roles and permissions defined, allowing HA to be studied in a structured manner.

Multi-user functionality allows several HA team members to work simultaneously on the same study.

There is a common forum to facilitate communication between team members.

Mapping

It provides a user-friendly graphical interface that makes mapping easy and does not require specific training.

A built-in auditing function facilitates review and correction for double counting.

It allows automatic mapping of International Classification of Disease (ICD) codes to SHA framework disease classification. This eliminates the need for manual conversion of ICD to SHA codes before importing data into the tool. This increases efficiency and reduces errors.

1.1 Online HAPT

The suggested way to use HAPT is via the online instance hosted in the WHO cloud. WHO recommends that countries use the online instance to avoid the installation procedure and to easily share studies with international organizations. Users can obtain a login and connect to online HAPT.

Use of online HAPT simplifies updating and managing the application, because the online instance is updated centrally. It also makes studies accessible to other users in your country.

1.2 Offline HAPT

The second way to use HAPT is to install a local copy on the user's machine and create HA studies offline, for local use only.

In such cases, the offline version of HAPT should be downloaded and installed. A user guide for offline HAPT is under development.

2. Getting started

Access to online HAPT is given by a WHO administrator or country Team Lead (TL).

2.1 Logging in to HAPT

You should use web a browser to access online HAPT. The recommended browsers are Microsoft Edge and Mozilla Firefox.

To log in to the HAPT web application, follow these steps.

1. Click the HAPT URL received in an email to your registered email address.

The ***Sign in*** screen is displayed.

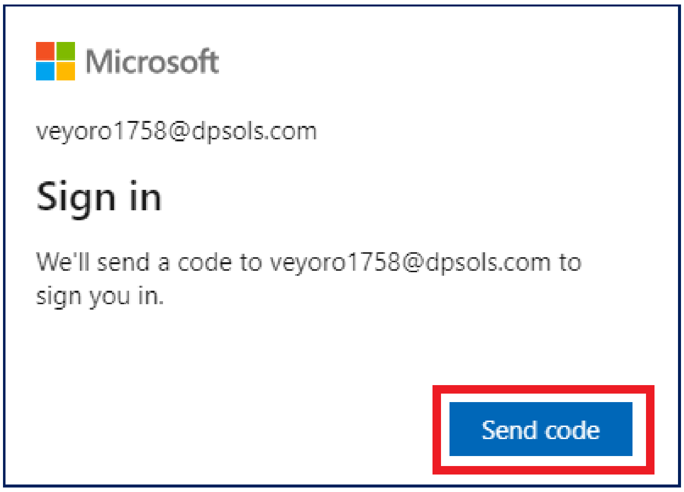


Fig. 2.1. The HAPT *Sign in* screen

2. Click **Send code**. You will receive an email with a code.

Provide the code and click **Sign in**.

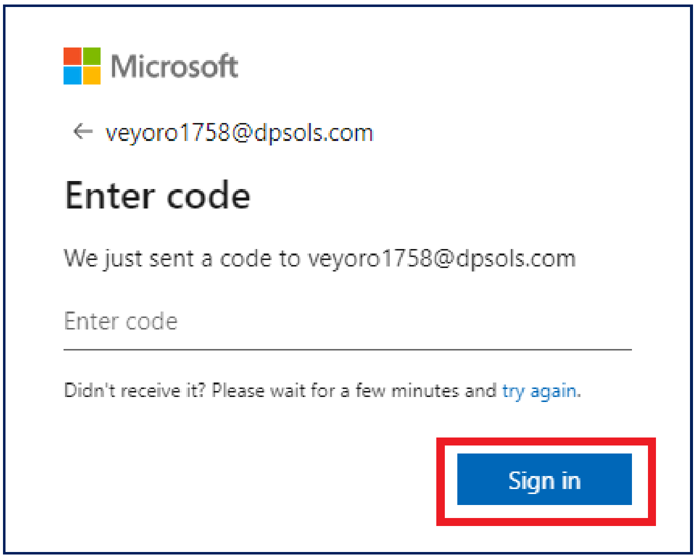


Fig. 2.2. The *Enter code* screen

The ***Review permissions*** screen is displayed.

3. Click **Accept**.

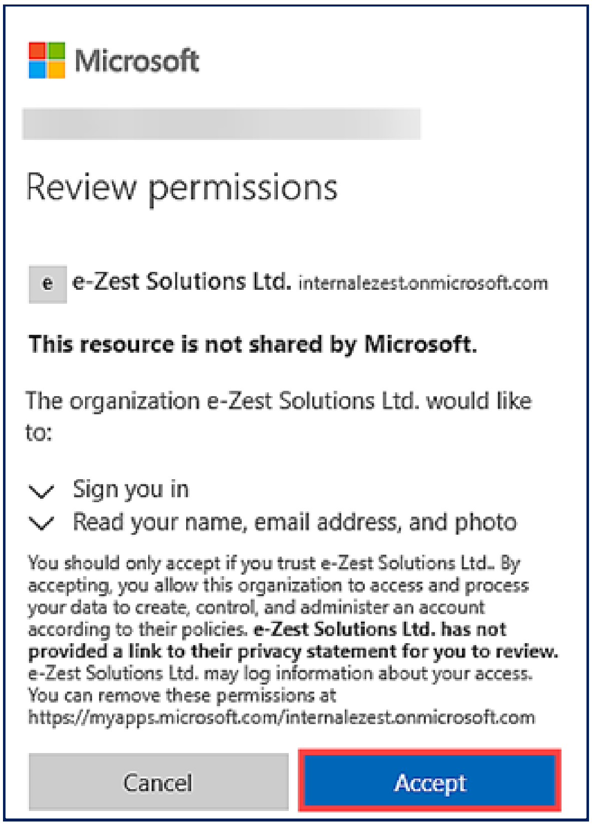


Fig. 2.3. The *Review permissions* screen

You are logged in to HAPT successfully.

To log in to the HAPT *Offline* screen, follow these steps.

1. Open the offline application.
2. Enter your username and password.
3. Click **LOGIN**.

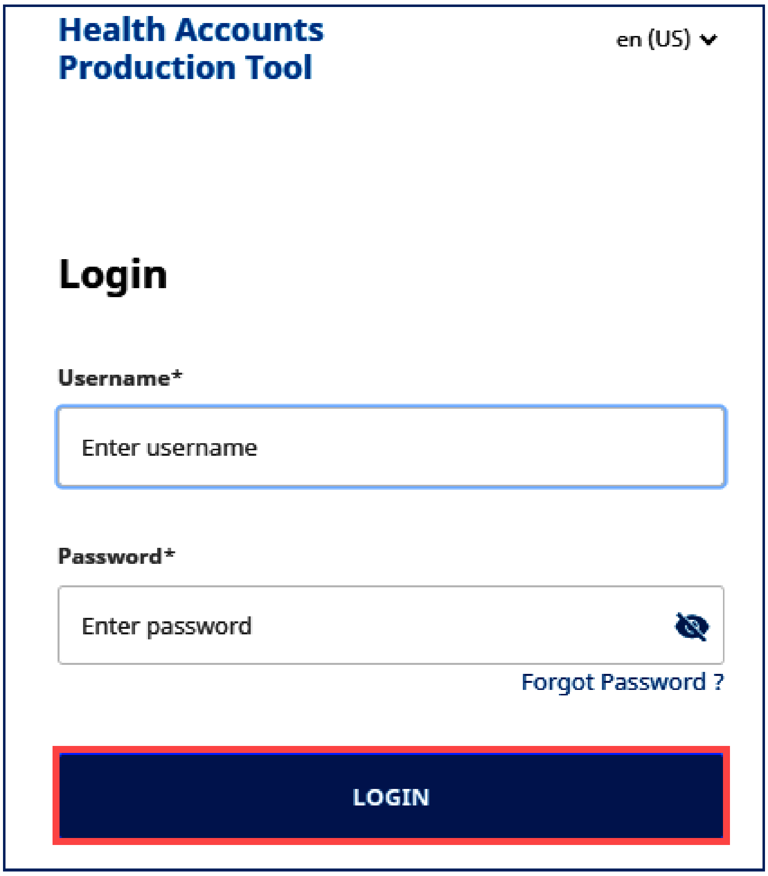


Fig. 2.4. The HAPT *Login* screen

2.2 Selecting language

HAPT is available in seven languages:

- English
- French
- Spanish
- Russian
- Portuguese
- Chinese
- Arabic.

You can select the language of HAPT at the time of login from the drop-down list or later, after logging in to the application, using the HAPT navigation panel on the left.

Note

This feature is available only for the offline instance of HAPT before logging in.

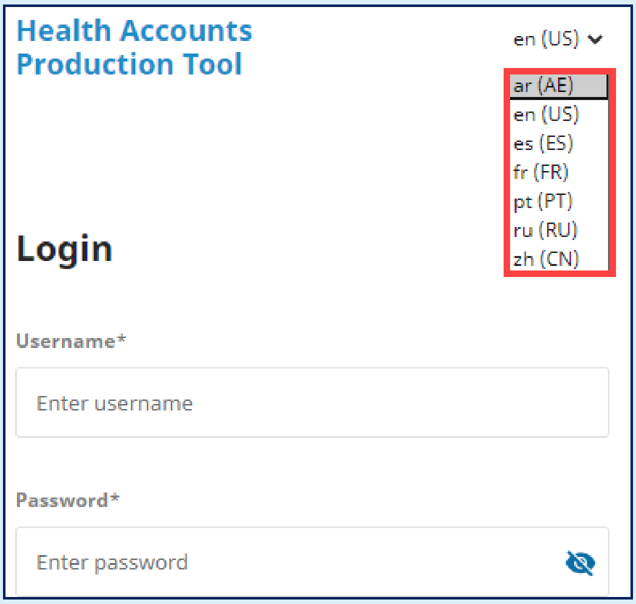


Fig. 2.5. Language options in the *Login* screen

The default application language is English.

Changing the language of the application after logging in has no effect on the existing study. To change the language, follow these steps.

1. On the navigation panel on the dashboard, click the language icon ().
2. Select your preferred language from the drop-down list.

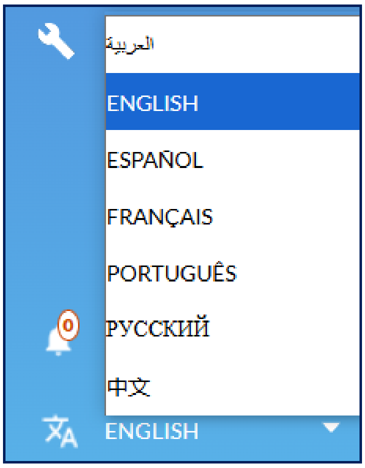


Fig. 2.6. Selecting the application language

The application can now be viewed in the language of your choice.

Note

It is possible to change the language at any time. But you must log out and then log in again for the change to take effect.

2.3 HAPT user interface

After login, you will land on the ***Study*** screen, where all your country studies, depending on your role in the system, will be listed.

Table 2.1. The HAPT navigation panel Icons

Icon	Section name	Description
	STUDY	Shows the list of studies for countries assigned to the user.
	ANALYSIS	Provides tools for cross-year analysis of health expenditures tracked under different SHA dimensions for a country.
	SETUP	Availability of **SETUP** depends on the user's roles. TLs can access these options, including a list of entities like USER MANAGEMENT, RULES etc. TMs and CUs cannot access it.
14	**NOTIFICATION**	Displays notification results of the actions carried out in HAPT.
	LANGUAGE	Changes the language of the application.
	USER'S NAME	Displays the name of logged-in user.
	HELP	Provides online help.
	DOWNLOAD FILES	Includes links to download the offline application and Docker.

CU: country user; SHA: System of Health Accounts; TL: team lead; TM: team member

2.4 Logging out of HAPT

You can log out of HAPT from the ***Profile*** screen. To log out from HAPT, follow these steps.

1. On the navigation panel, hover over or click the user icon ( ).
2. Click **LOGOUT**.

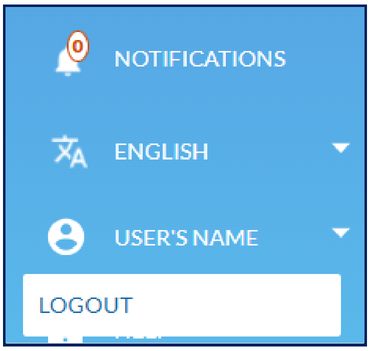


Fig. 2.7. Logging out from HAPT

Logout page is displayed.

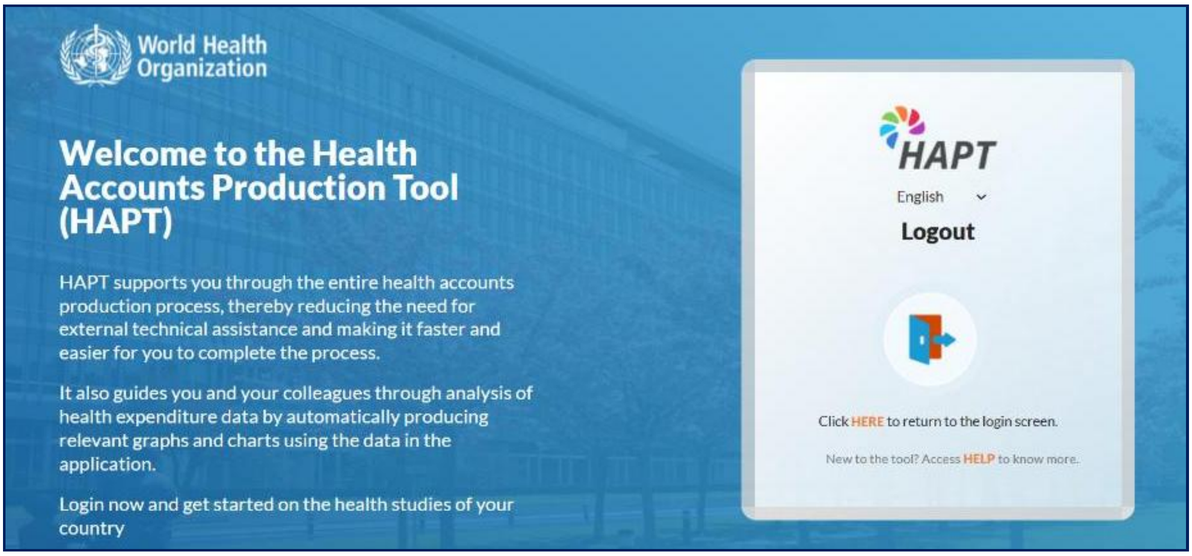


Fig. 2.8. The *Logout* page

2.5 Notifications

Notifications are updates of all activities that run in the background in HAPT. These activities inform you about their current status with updates in the form of notifications. The list of features and functionalities that give notifications when they start and finish includes:

- Repeat mapping
- Import mapping
- Replace all
- Import secondary data
- Import data source
- Import old study
- Duplicate study
- Create study
- Delete study
- Delete data sources
- Delete data rows
- Import split rule
- Import split pattern
- Export cross table
- Export mapping
- Validation graph sync
- Cross table sync

To check the notifications, follow these steps.

1. In the navigation panel of the dashboard, click **NOTIFICATIONS** ( ).

The ***Notifications*** screen is displayed.

Notification colour coding is:

- green – successful notifications
- yellow – in-progress
- blue – import completed with some errors
- red – failed notification.

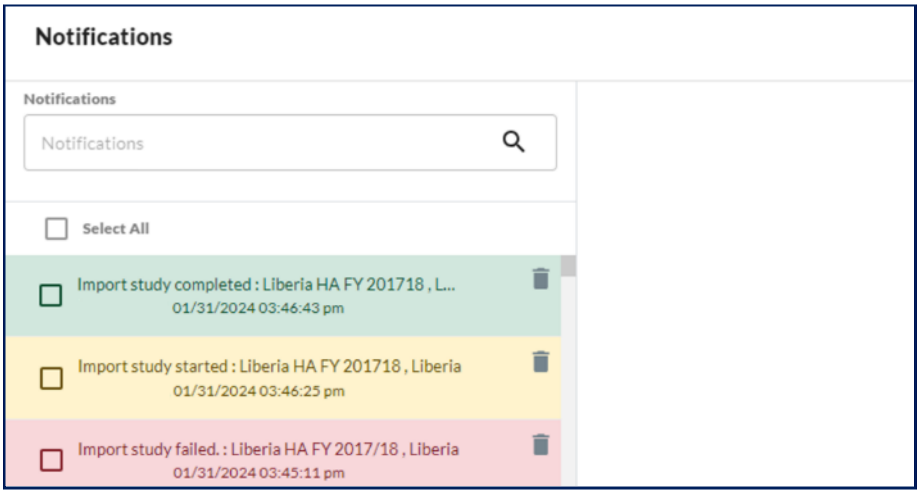


Fig. 2.9. Viewing notifications

2. Click the notification to view its details. A coloured bar appears on the left to indicate which notification is selected, and the notification details are displayed on a right pane of the page.

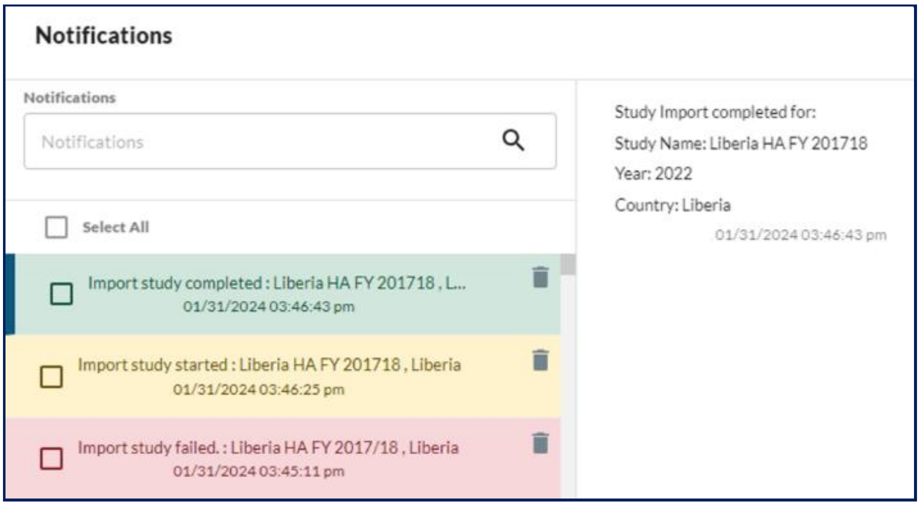


Fig. 2.10. Viewing notification details

Note

- Once the notification is read, the notifications counter for unread notifications will be updated.
- Only one notification can be viewed at a time.
- Click the **COPY MESSAGE** button (COPY MESSAGE) to copy the notification.
- To delete the notification, click the trash icon ( ) next to the notification.

2.6 Help

Help is available for all users. The **HELP** section contains various documents and tutorials, including how-to videos for all functionalities in the application. You can access these documents and videos for guidance to complete their health account study. There are two subsections of the **HELP** section; Video and Document.

To access the **HELP** section, follow these steps.

1. Click **HELP** ( ) in the left navigation pane.

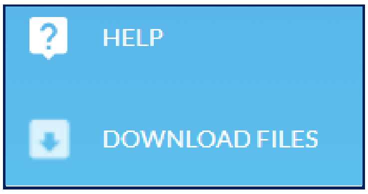


Fig. 2.11. Going to the Help section

2. By default, the Video subsection is shown.
3. Click on any video.
4. The selected video opens and plays on the right of the screen.
5. Download the video by clicking **DOWNLOAD**.

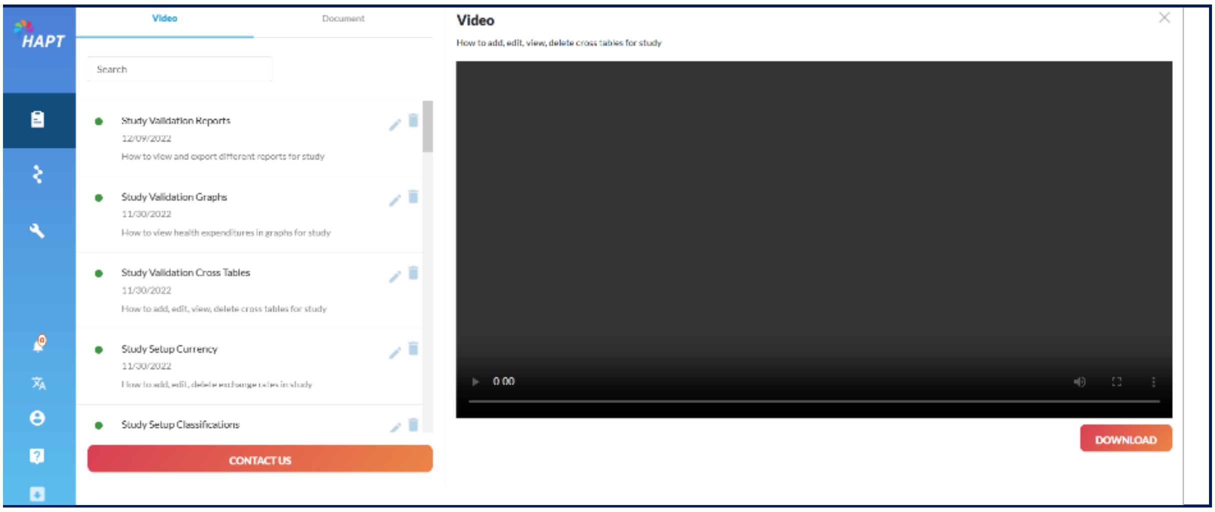


Fig. 2.12. Downloading a video

The video download will start.

6. Click Document in the top menu to view all attached documents.
7. Clicking on any document downloads it.

The document is downloaded to the default location.

Contact WHO team by clicking **CONTACT US**.

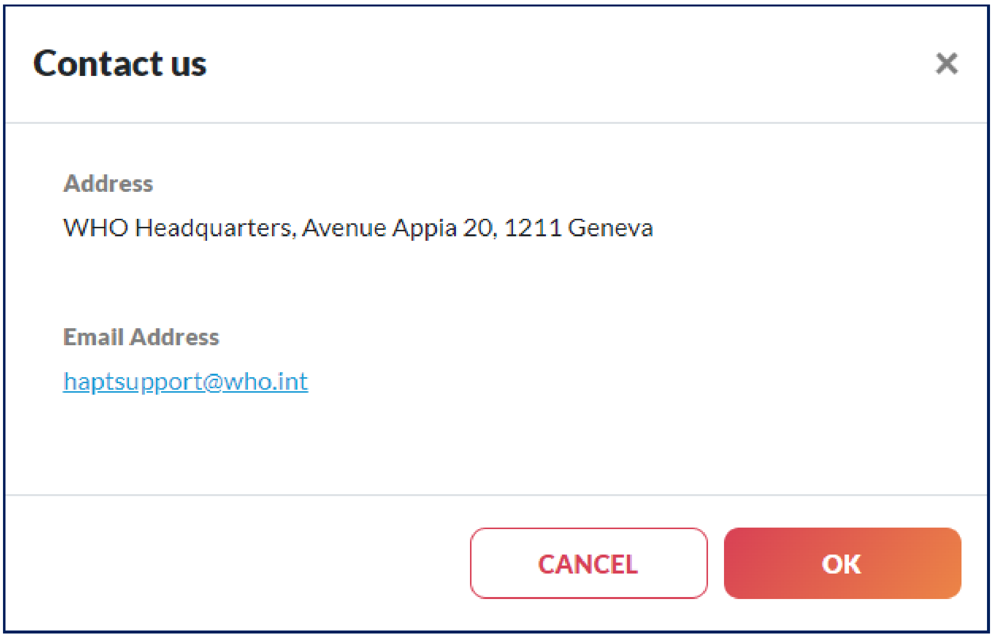


Fig. 2.13. The *Contact us* pop-up

2.7 Download files

The **DOWNLOAD FILES** section allows you to access and download all the files required for the offline application.

To access the **DOWNLOAD FILES** section, follow these steps.

1. Click **DOWNLOAD FILES** on the left navigation pane.

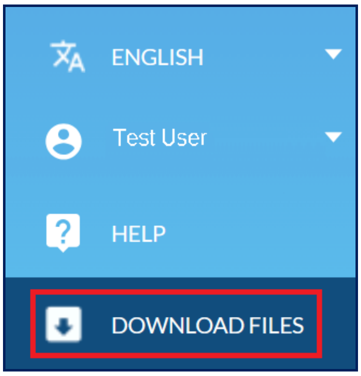


Fig. 2.14. Going to the DOWNLOAD FILES section

The *Download Files* page is shown.

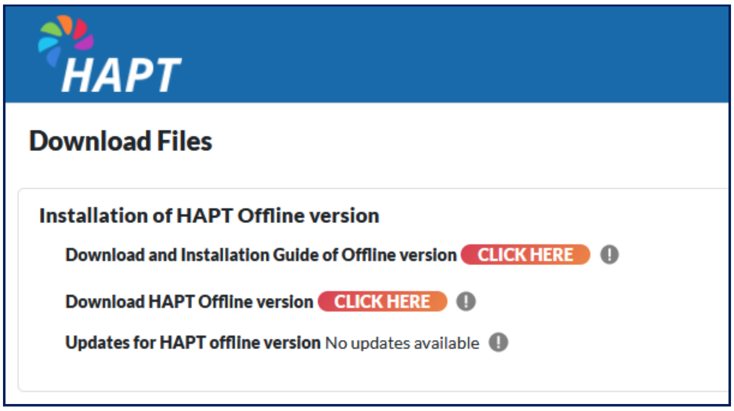


Fig. 2.15. The *Download Files* page

3. SETUP

The various HAPT setup features managed in the **SETUP** section in the navigation panel on the left dashboard can be used for configuring and managing data on a country level. Changes made in the **SETUP** section impact **all new** studies. The **SETUP** section includes two modules: USER MANAGEMENT and RULES. Only team leaders (TLs) can access these modules, and which modules a user can see depends on their role and permissions. To open these modules, follow these steps.

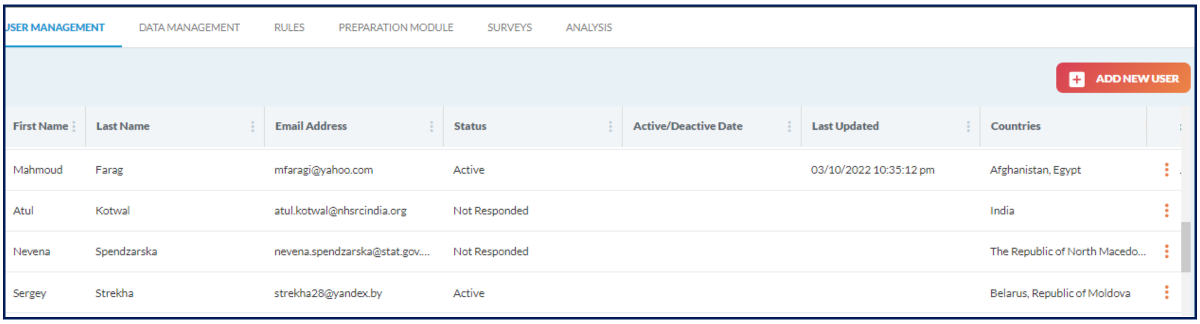
1. Log in to HAPT; refer to Logging in to HAPT.
2. In the navigation panel, click **SETUP** ( ).

Fig. 3.1. Modules in the SETUP section

> **Note**
>
> Changes made at country level affect new studies only.

3.1 USER MANAGEMENT module

The USER MANAGEMENT module allows a TL to edit information about existing users, change users' roles, and deactivate users. The USER MANAGEMENT module displays the list of users created in the application and their respective statuses (for the TL's assigned country).



First Name	Last Name	Email Address	Status	Active/Deactive Date	Last Updated	Countries
Mahmoud	Farag	mfaragi@yahoo.com	Active		03/10/2022 10:35:12 pm	Afghanistan, Egypt
Atul	Kotwal	atul.kotwal@nhsrcindia.org	Not Responded			India
Nevena	Spendzarska	nevena.spendzarska@stat.gov....	Not Responded			The Republic of North Macedo...
Sergey	Strekha	strekha28@yandex.by	Active			Belarus, Republic of Moldova

Fig. 3.2. The USER MANAGEMENT module

Note

- The **USER MANAGEMENT** module can be used by TLs only.
- TLs can edit and deactivate users for assigned countries. TLs can only manage team members (TMs) and country users (CUs) for assigned countries.
- Once a user verifies their account, the activation date is listed in the "Active/deactivate date" column. Similarly, if an active user is deactivated, the date of the last status change is listed in this column.

3.1.1 Users' roles

There are three user roles in HAPT. Every role has predefined permissions.

3.1.1.1 Team lead (TL)

- Team leads can access information related only to those countries that are associated with their specific TL role.
- For any country in the list of countries, there can be multiple TLs, and a TL can have access to multiple countries, allocated to them.
- TLs can edit and deactivate TMs and CU for countries assigned to the TL by the PO.
- TLs can add, edit, delete, and duplicate the studies of their assigned countries.
- TLs may have that role for several countries. A TL can view the list of studies, open and work on multiple studies at the same time for all the countries they have been assigned to.
- TLs can assign permissions to TMs to allow them to edit data of various data source types. Before assigning permissions, a TL must ensure that the TM is assigned to the study.
- TLs can view, delete, and replace files created by TLs and TMs in the document library.

3.1.1.2 Team member (TM)

- TMs may be assigned to several countries, if needed. TMs can access information about only those countries to which they are assigned.
- For a TM to access a specific data source type, access must be given by a TL.
- TMs can view the list of studies, and open and work on multiple studies at the same time, for the countries they have been assigned to.
- TMs can view, delete, and replace files created by TMs in the document library under the study.
- The TM role is a subset of the TL role, so TLs can perform any actions that TMs can do for a selected country.

3.1.1.3 Country user (CU)

- CUs have read-only access to the data and studies of the countries that are assigned to them. CUs cannot add, edit, or delete data in HAPT.
- CUs cannot modify any feature, information or data.

> **Note**
>
> You may have different user roles for different countries.

3.1.2 Adding a new user

This function allows TLs to add new users. To edit the information, follow these steps.

1. In the **USER MANAGEMENT** module the list of users is displayed. To add a new user, click the **ADD NEW USER** button.

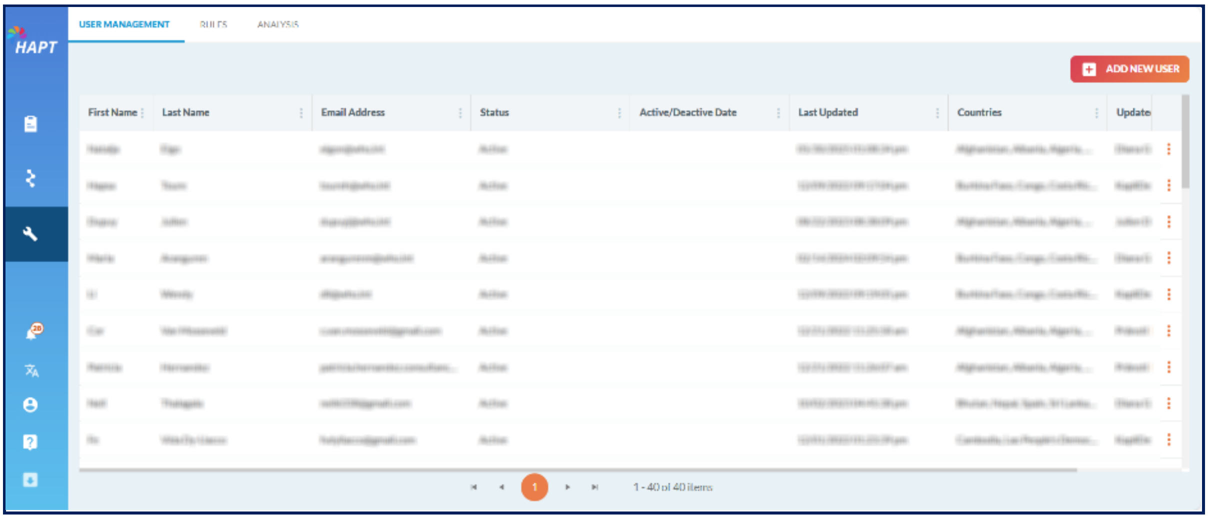


Fig. 3.3. Adding a user

The *Add New User* form is displayed.

2. Enter the user's first name, last name and email address in their respective fields.
3. Choose the user's role: TM or CU. A user may have different roles for different countries.
4. For the selected role, choose the countries the user should be responsible for.
5. Click **INVITE AND ADD** to create the user.

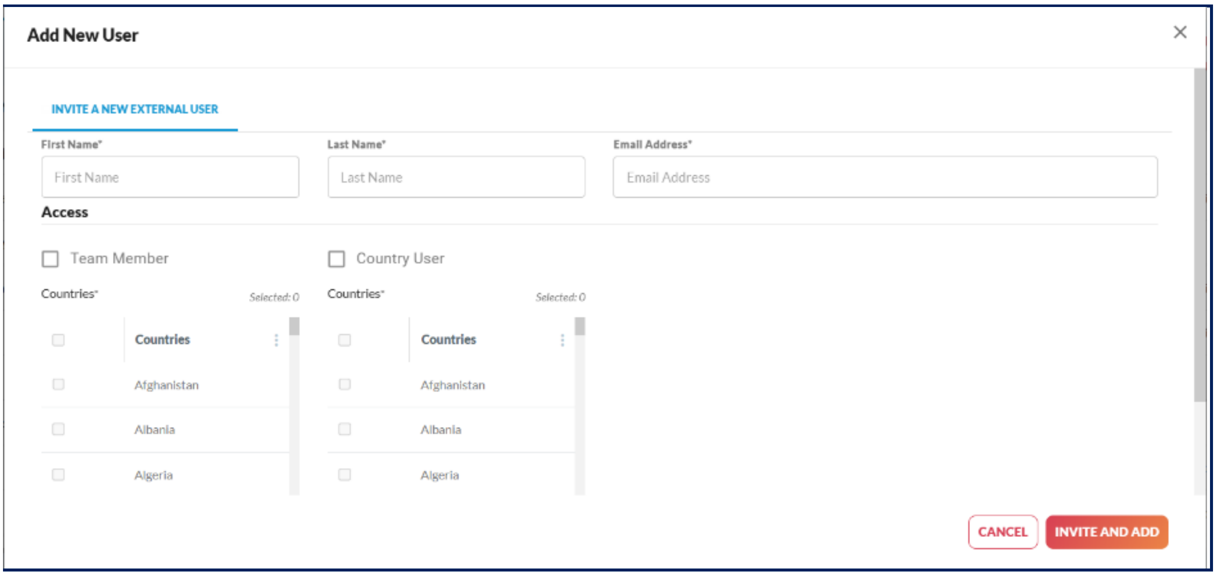


Fig. 3.4. The *Add New User* form

The user is created successfully.

3.1.3 Editing a user profile

This function allows TLs to edit a user's details. To edit the information, follow these steps.

1. In the **USER MANAGEMENT** module user list, click the ellipsis (⋮) corresponding to the user whose details you want to edit, then click **Edit**.

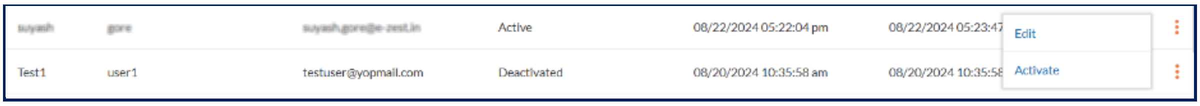


Fig. 3.5. Editing a user profile

The ***Edit User*** form is displayed, which is fully identical to the *Add New User* form, so please refer to section above for details.

> **Note**
>
> **Edit** will be available for all users, whether their status is active, deactivated or non-responded.

3.1.4 Deactivating a user

This feature allows TLs to deactivate the users who should no longer have access to HAPT. Deactivated users cannot access the application unless they are activated again. To deactivate a user, follow these steps.

1. In the **USER MANAGEMENT** module user list, click the ellipsis ( ) corresponding to the user you want to deactivate, then click **Deactivate.**

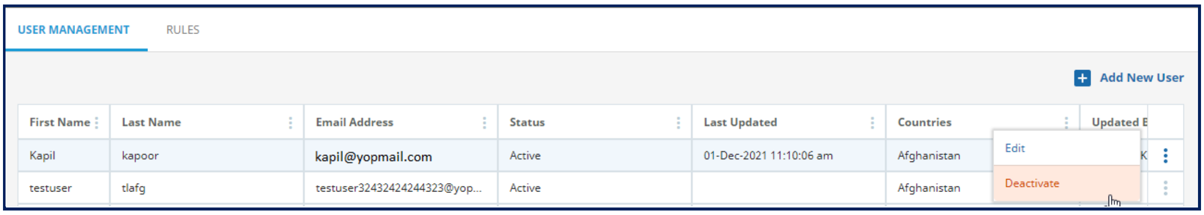


Fig. 3.6. Deactivating a user

A message asking you to confirm your action is displayed.

2. To confirm, click **YES.**

The user is deactivated, and a confirmation message is displayed.

> **Note**
>
> - The deactivated user will get an email notification sent to their registered email address.
> - TLs can activate and deactivate users for their assigned countries.

3.1.5 Deleting a user

Users can only be deleted if they have not activated their accounts yet. For active users, only deactivating is allowed. To delete an inactive user, follow the steps below.

1. In the **USER MANAGEMENT** module user list, click the ellipsis ( ) corresponding to the user you want to edit, then click **Delete**.

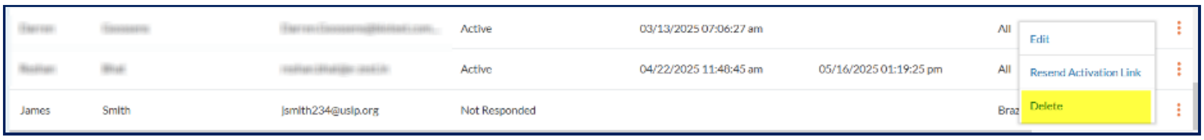


Fig. 3.7. Deleting a user

2. The user is deleted.

3.1.6 Resending the activation link

When a new user is added, an activation link is sent to their registered email address. If the user does not respond to the email, the account will not be activated. This feature allows the activation link to be sent again to the user. To resend an activation link, follow these steps.

1. In the **USER MANAGEMENT** module user list, click the ellipsis ( ) corresponding to the user you want to resend the activation link to, and click **Resend Activation Link**.

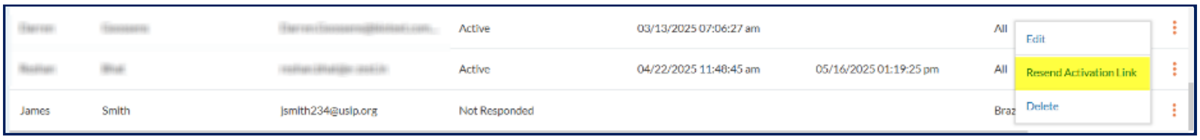


Fig. 3.8. Resending the activation link

A message asking you to confirm your action is displayed.

2. To confirm, click **YES**.

The activation link is re-sent to the registered email, and a confirmation message is displayed.

Note

TLs can resend the activation link only to users of non-responded status.

3.1.7 Viewing user details

Viewing user details allows TLs to see and edit the details of existing users. To view a user's details, follow these steps.

1. In the **USER MANAGEMENT** module user list, click the user for which you want to see the details.

The *User details* screen is displayed.

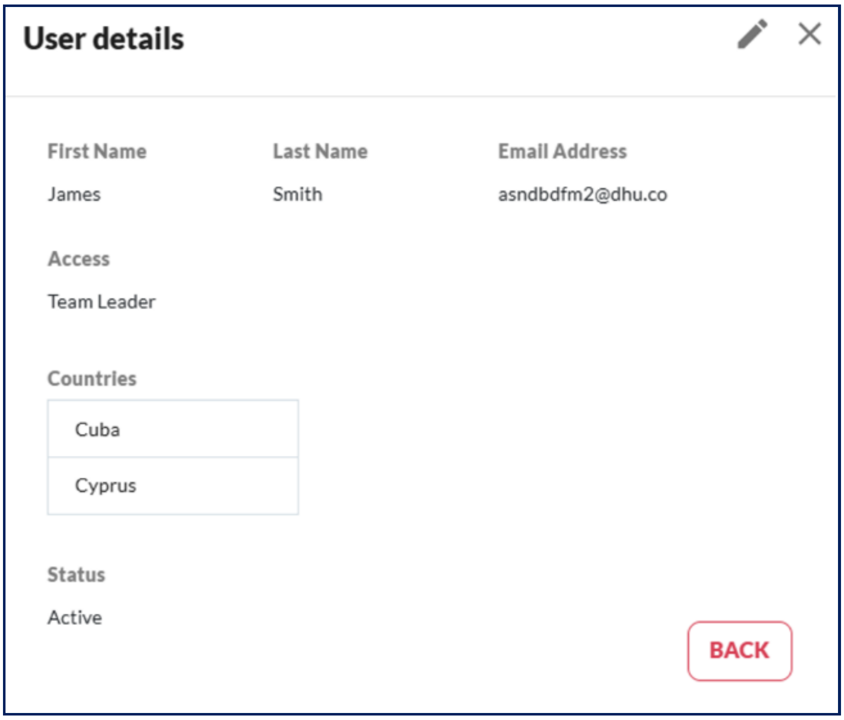


Fig. 3.9. The *User details* screen

3.2 RULES module

The **RULES** module allows TLs to add and delete split rules and split patterns. The split library is a collection of split rules and split patterns. It helps TLs keep track of the split rules and split patterns created under previous and current studies country studies in HAPT. It also allows TLs to delete any split rules and split patterns that will not be added to studies created in future. All split rules and split patterns created in a study and marked to be added in country library are displayed in the split library of that country in the **RULES** module.

The split rules and split patterns from the split library module can be used while creating a new study for the country. For more information about split rules and split patterns, refer to Split rules and Split patterns.

3.2.1 Split rules

This feature helps TLs view the details of the selected split rule from the list of split rules that have been created for the country. It includes the name of the split rule, its description, and the classification items used in the split rule. To view split rules, follow these steps.

1. Under **SETUP** (), select RULES.
2. Select Split Library.

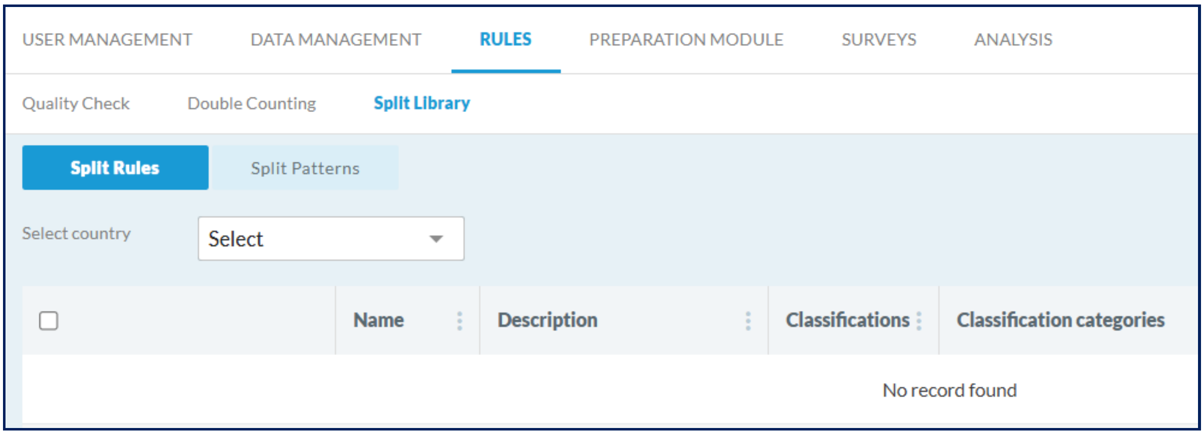


Fig. 3.10. Opening the Split Library screen

3. Under the **Split Rules** tab, select the desired country from the ***Select country*** drop-down list.

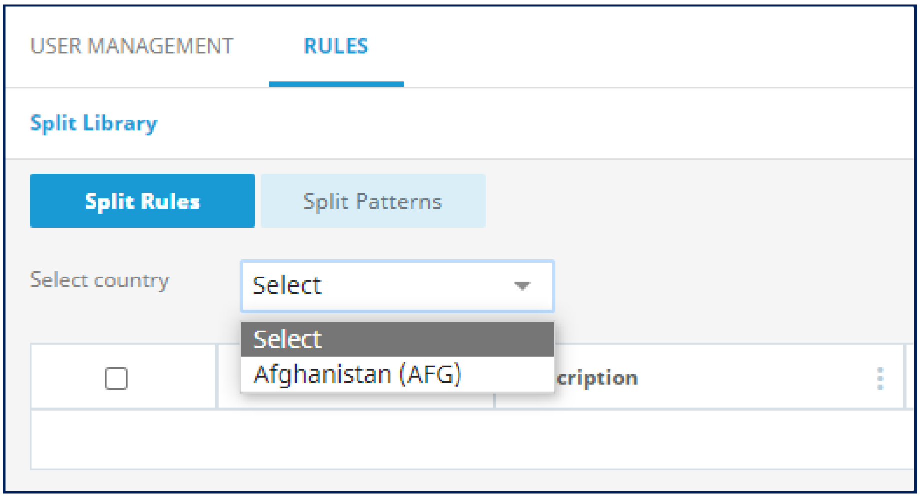


Fig. 3.11. Selecting a country to view its split rules

The list of split rules for the selected country is displayed.

1. Click the ellipsis (⋮) corresponding to the split rule that you want to view.
2. Click **View Rule**.

Fig. 3.12. Viewing the selected split rule

The ***View Rule*** screen is displayed.

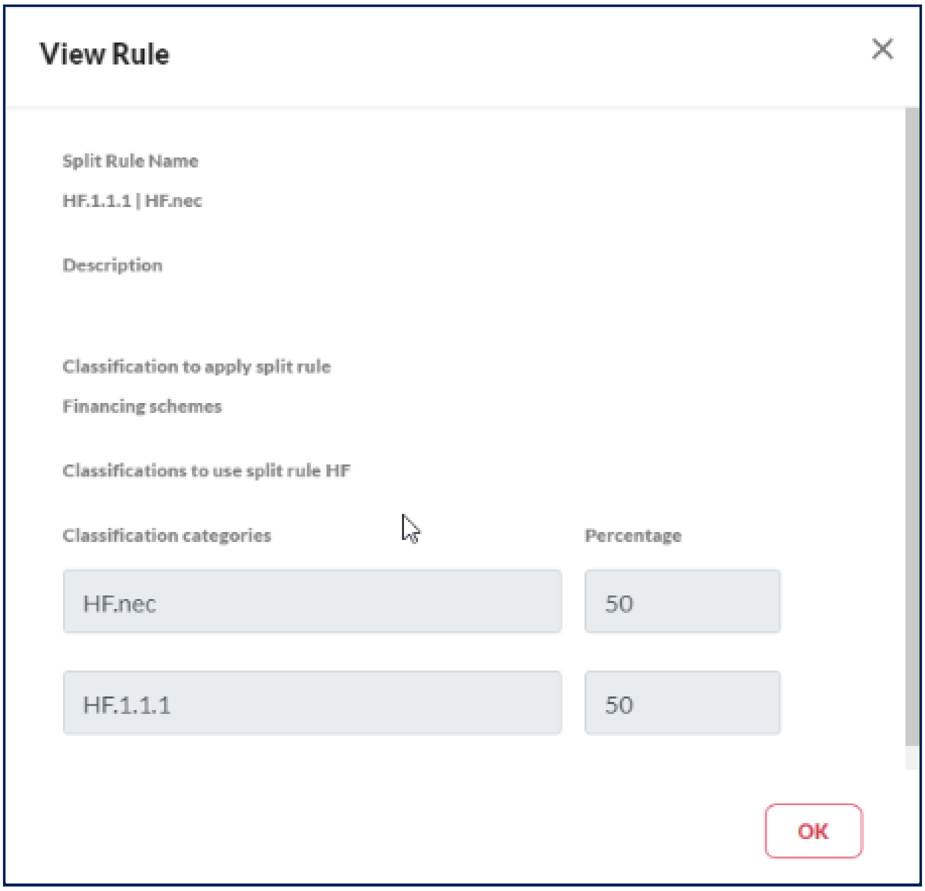


Fig. 3.13. The *View Rule* screen

3.2.1.1 Deleting split rules

This feature deletes the selected split rule from HAPT for the country. Deleted rules become unavailable for future studies. Old studies will not be affected by deleting the rule. To delete the split rule, follow these steps.

1. Click the ellipsis (⋮) next to the split rule.

2. Click **Delete**.

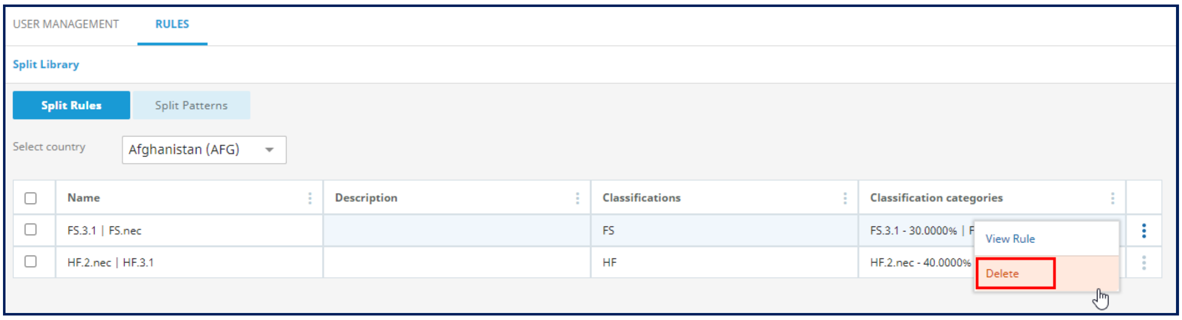


Fig. 3.14. Deleting the selected split rule

A message asking you to confirm your action is displayed.

3. To confirm, click **YES**.

The split rule is deleted, and a confirmation message is displayed.

> **Note**
>
> Split rules can be added in a country's library from a study. Refer to Adding a split rule for more details.

3.2.2 Split patterns

A split pattern is a group of rules that are often used together, and so are combined for ease of use. TLs can create split patterns while performing mapping, allowing users to apply a group of split rules at once. This pattern can be applied for data rows, data sources and other years' studies of the country.

This feature displays details of the selected split pattern from the list of split patterns, which have been created for the selected country. It includes the name of the split pattern, its description, and the split rules used in the split pattern. To view split patterns, follow these steps.

1. Under **SETUP** (), select RULES.
2. Select the **Split Library** submodule.

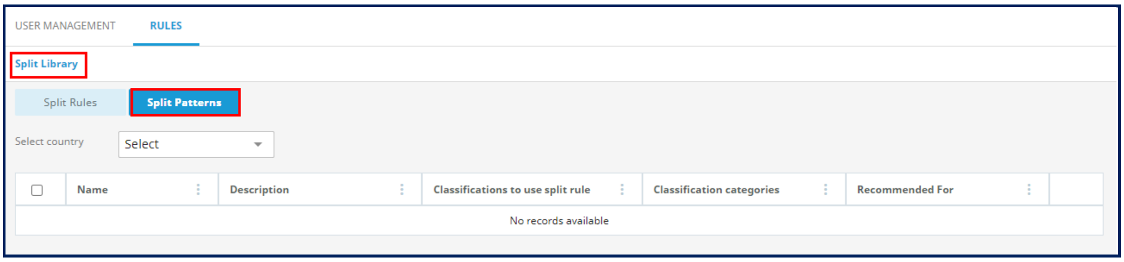


Fig. 3.15. Opening the split library

3. Under the **Split Patterns** tab, select the country from the ***Select country*** drop-down menu.

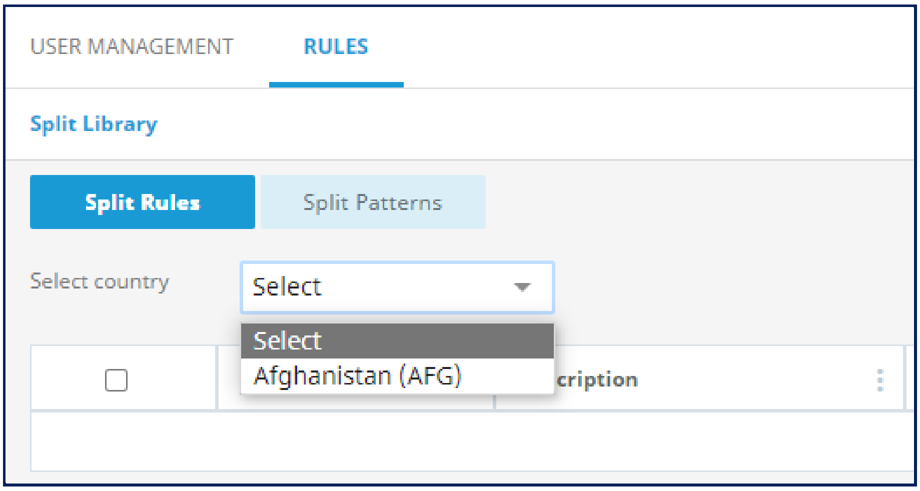


Fig. 3.16. Selecting a country to view its split patterns

The list of split patterns for the selected country is displayed.

1. Click the ellipsis (⋮) corresponding to the split pattern that you want to view.
2. Click **View Pattern**.

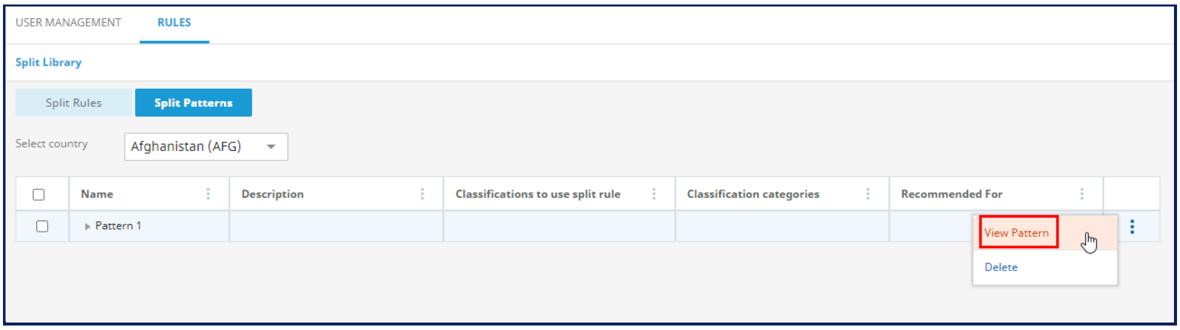


Fig. 3.17: Viewing the split pattern

The ***View Pattern*** screen is displayed.

Fig. 3.18. The *View Pattern* screen

3.2.2.1 Deleting split patterns

This feature deletes the selected split pattern from HAPT for the selected country. Deleting a split pattern makes it unavailable for studies created in future for the country. To delete the split pattern, follow these steps.

1. Click the ellipsis (⋮) corresponding to the split pattern that you want to delete.
2. Click **Delete**.

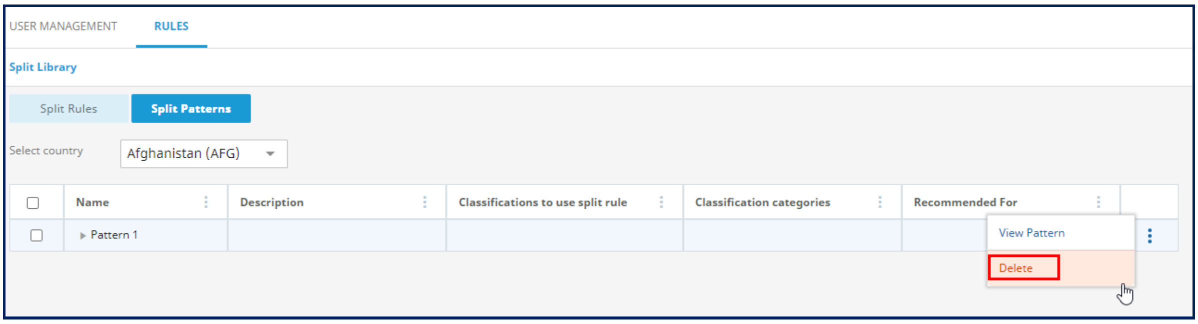


Fig. 3.19. Deleting a split pattern

A message asking you to confirm your action is displayed.

3. To confirm, click **YES**.

The split pattern is deleted, and a confirmation message is displayed.

> **Note**
>
> Split patterns can be added to a country's library from a study. Refer to Adding a split pattern for more details.

4. Study section

A study is the mapped data related to the health expenditure for a country for one year. When you click on STUDY or the study icon ( ),you will be directed to the **STUDY** section. HAPT can be used for multiple exercises at once – you can decide to start a new HA study or revisit previous studies.

4.1 Adding a study

To start working on the studies, please go to the studies workspace by clicking on **STUDY** in the navigation panel.

Fig. 4.1. Opening the *Study* page

A new page will open. Here, a TL can create a new study or both TL and TM can choose previous studies to open, edit, or delete from the list that appeared. A TL also can import a study from the old HAPT 4.0.0.6. Search filters can be used to search for studies on the page. To start a new study, follow these steps.

1. On the navigation panel open the **STUDY** section. by clicking on the study icon ( ).
2. On the new page, click **ADD NEW STUDY**.

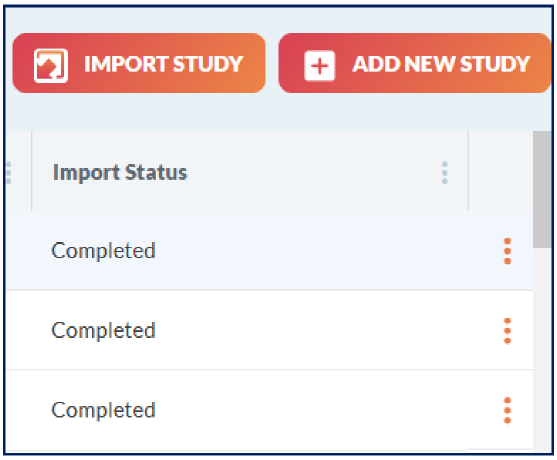


Fig. 4.2. Adding a new study

The *Add New Study* form is displayed.

3. Enter the required details in their respective fields and click **ADD**.

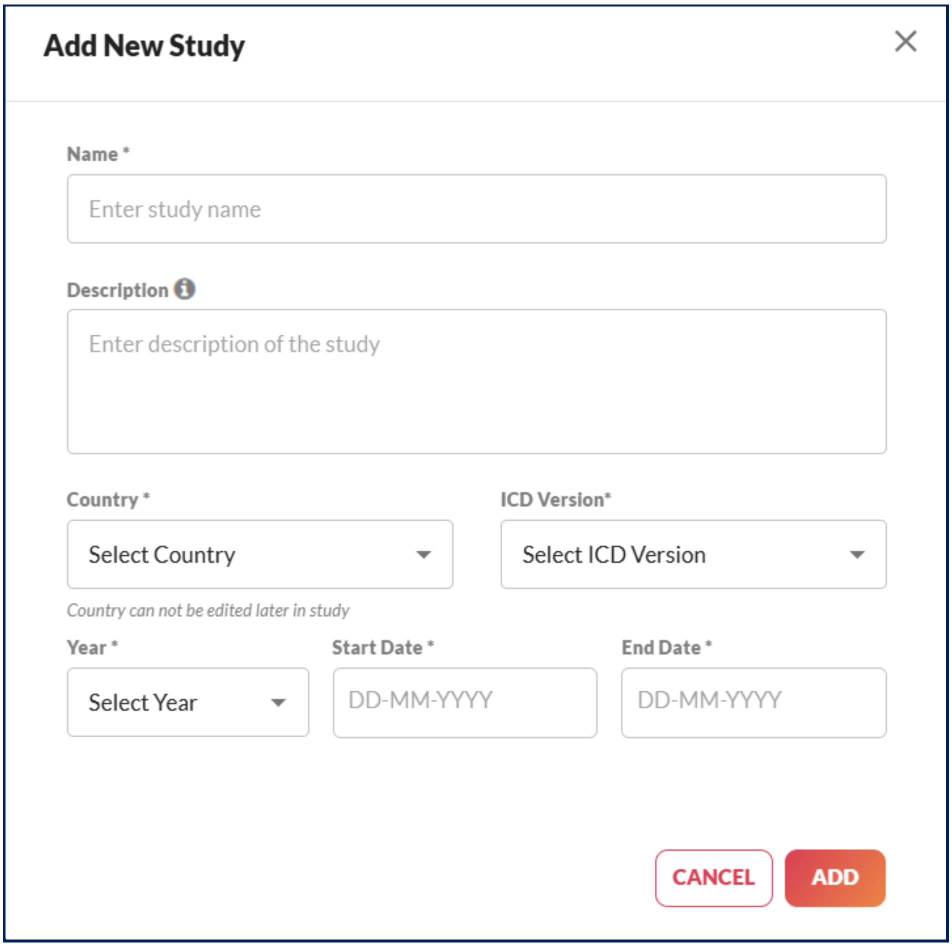


Fig. 4.3. Adding the *New study* form

You will get a message in the **NOTIFICATION** section that the study creation has started. Once the study creation process has completed, you will get another notification about the successful study creation.

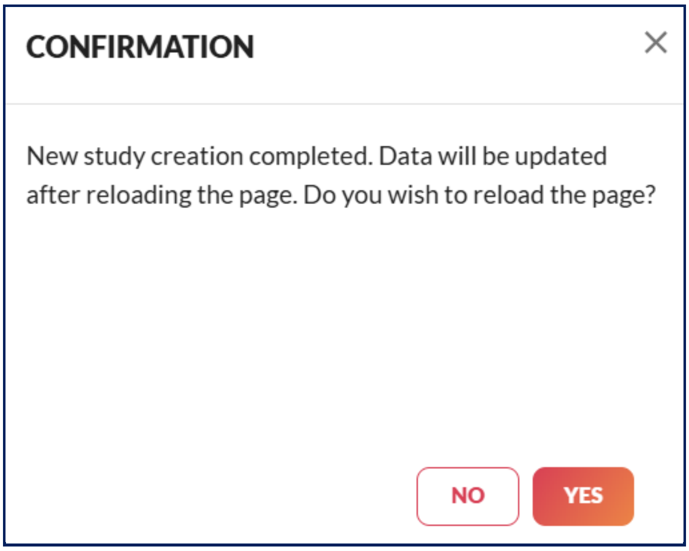


Fig. 4.4. Notification that new study creation is complete

You must confirm the action by clicking **YES** to reload the page. Once the page is reloaded, the new study appears in the study list. Table 4.1 shows the fields to be filled out on the ***Add New Study*** page when creating a new study.

Table 4.1. Description of fields and buttons for the *Add New Study* page

Field/button Name	Instructions
Name	Enter the name of the study.
Description	Add a description of the study; e.g. who the HA team members are and what is special about this study.
Country	Select the country for which the study is prepared.
Select ICD Version	Mandatory field; choose the version of ICD (ICD-9, ICD-10 or ICD-11) used in the country. **Take care with the selection of the version of ICD, as it cannot be changed later in the study.** This function is useful if the data contain ICD codes, because the tool provides an automatic conversion to the DIS classification. The crosswalk table can be found in the **Help** section of the tool. If you do not want to use this crosswalk function, you must still select the ICD version to start a study, but need not further bind data to diseases when importing data. A crosswalk can only be changed centrally in the tool.
Year	Enter the year for the study. You can add studies for years starting from the year 2000.

Field/button Name	Instructions
Start Date	To select the study time boundary, enter its start date. All stakeholders will be required to report their expenditure data according to this boundary. It can be based on either calendar year or government fiscal year.
End Date	To select the time boundary for the exercise, enter its end date. All stakeholders will be required to report their expenditure data according to this boundary. It can be based on either calendar year or government fiscal year.

DIS: Diseases and conditions (classification in SHA 2011)

It is not possible to create a new study for a country and for a year already existing. However, an existing study can be duplicated. Please refer to Duplicating a study. In the **NOTIFICATION** section, the status of a study is shown when started and when completed (Fig. 4.5 and Fig. 4.6).

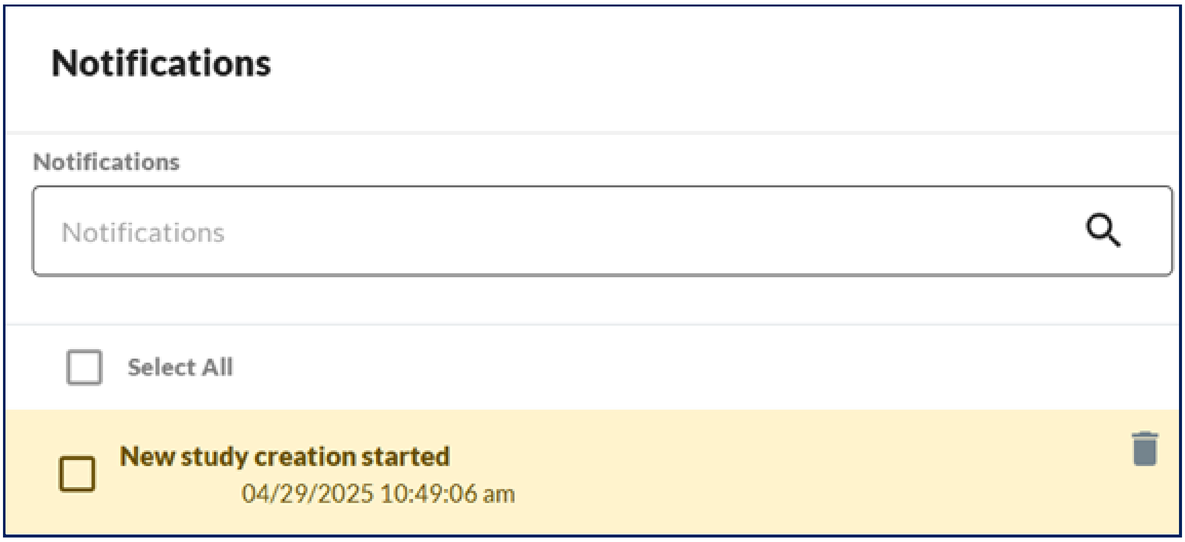


Fig. 4.5. Notification that new study creation has started

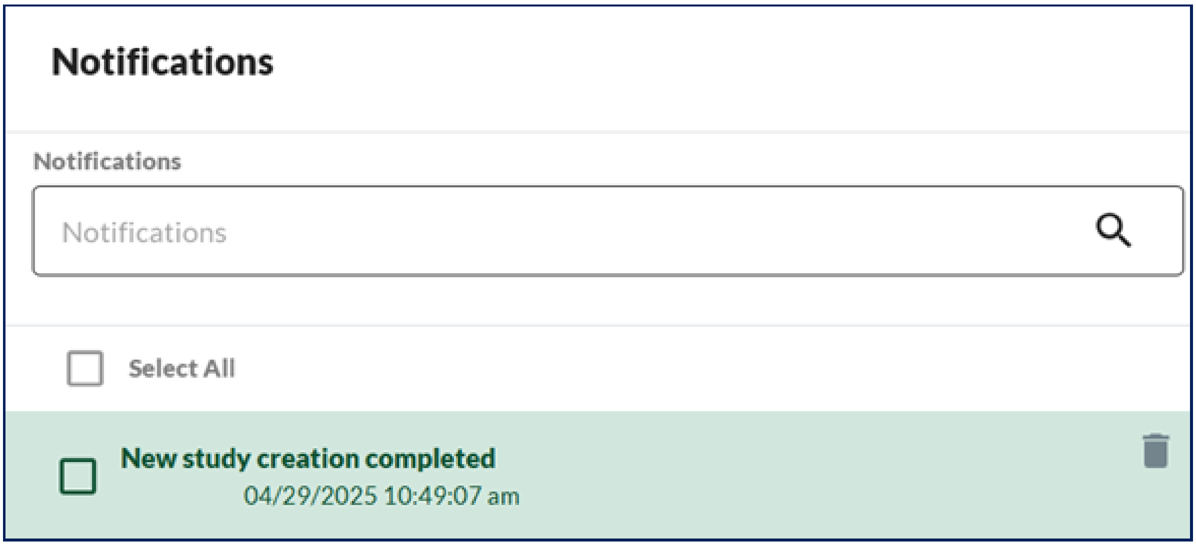


Fig. 4.6. Notification that new study creation has completed

Note: You can manually add a study for the years after 2000.

4.2 Opening an existing study

To open a study, follow these steps.

1. On the navigation panel, open section **STUDY** by clicking its icon ( ).
2. Search for the relevant study from the study list, by sorting or filtering if needed.
4. Click on the study name or anywhere on the study row to open the study in the same tab directly.
3. Click the ellipsis ( ) corresponding to the study you want to open.

- If you click **Open**, the study will open in the same tab.
- If you click **Open in new tab**, the study will open in a new tab.

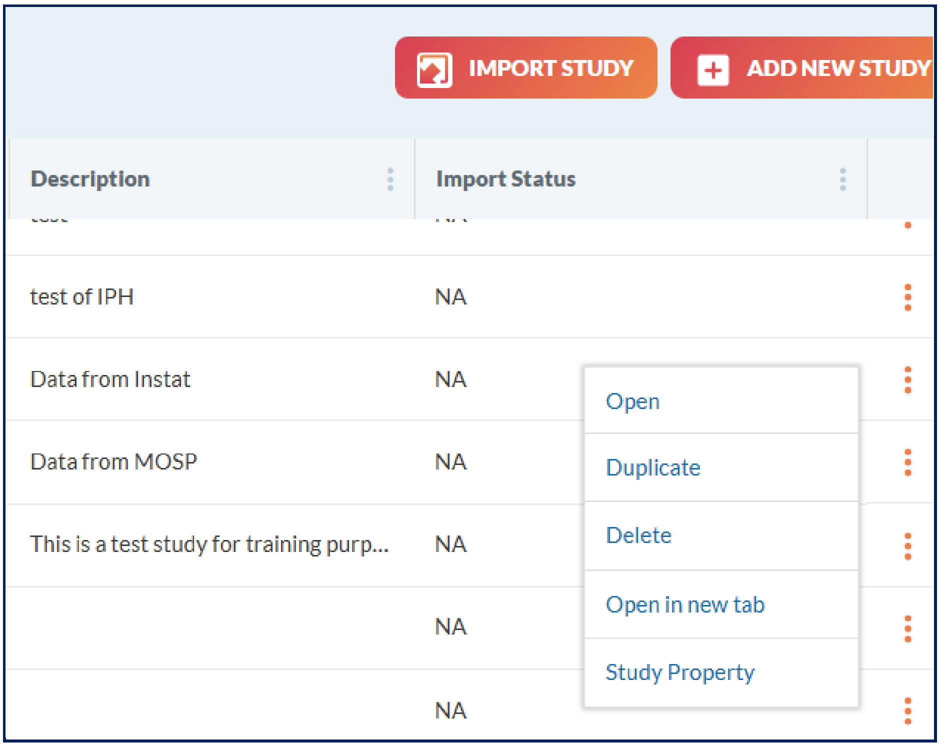


Fig. 4.7. Opening a study

4.3 Deleting a study

To delete a study, follow these steps.

1. On the navigation panel open section **STUDY** by clicking its icon ( ).
2. Select the study you want to delete from the ***Study*** page.
3. Click the ellipsis ( ) corresponding to the study you want to delete.
4. Click **Delete**.

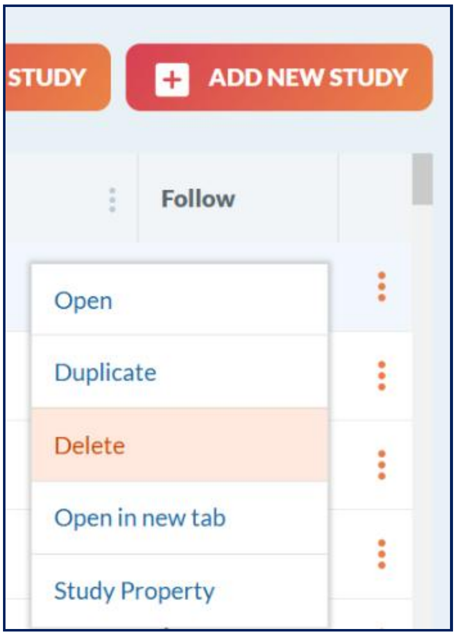


Fig. 4.8. Deleting a study

The confirmation message is displayed.

1. Click **YES**.
2. You will receive a notification when the study has been deleted.

When a study has been successfully deleted, a dialog box pops up and asks if you want to refresh the page. If you click **YES**, the page will refresh, and the deleted study will be removed from the list of studies. If you click **NO**, then the study will remain visible until the page is refreshed or closed. However, the three-dot menu (vertical ellipsis,)will be hidden for the study that has been deleted.

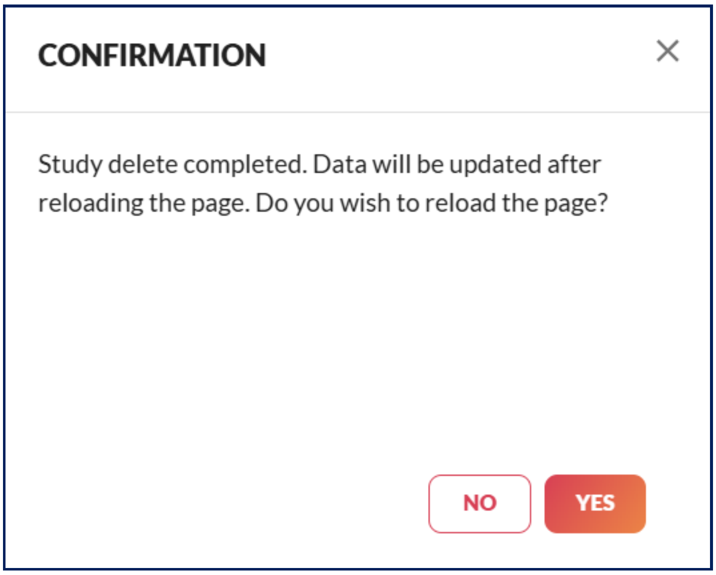


Fig. 4.9. Confirmation of study deletion

The **NOTIFICATION** section shows the status of the deletion process for the study that is being deleted.

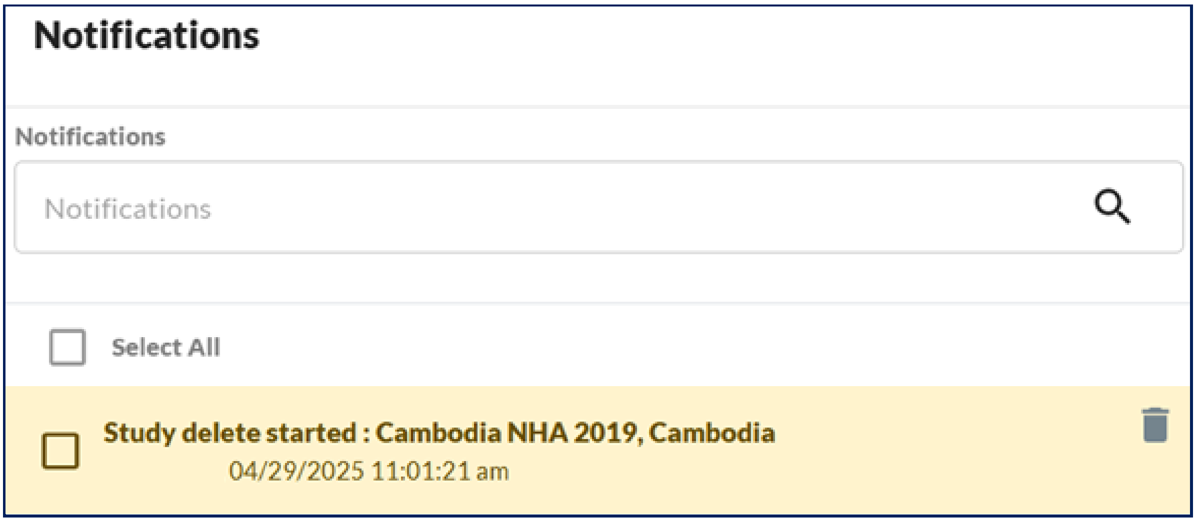


Fig. 4.10. Notification that deletion of a study has started

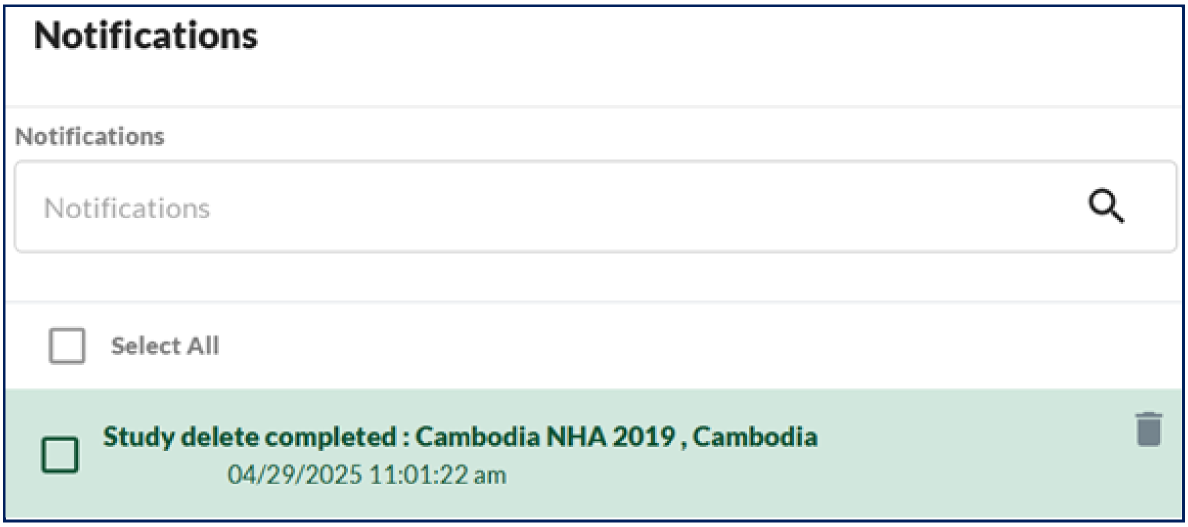


Fig. 4.11. Notification that deletion of a study is complete

4.4 Duplicating a study

Duplicating a study creates a copy of the selected study for the same country for the same or different years. When duplicating a study, all the data, data sources and mapping, splitting rules and so on are copied to the new study. The duplicated study is an exact replica of the original study.

To duplicate a study, follow these steps.

1. On the navigation panel open section **STUDY** by clicking its icon ( ).
2. Select the relevant study from the ***Study*** page.
3. Click the ellipsis ( ) corresponding to the study you want to open.
4. Click **Duplicate**.

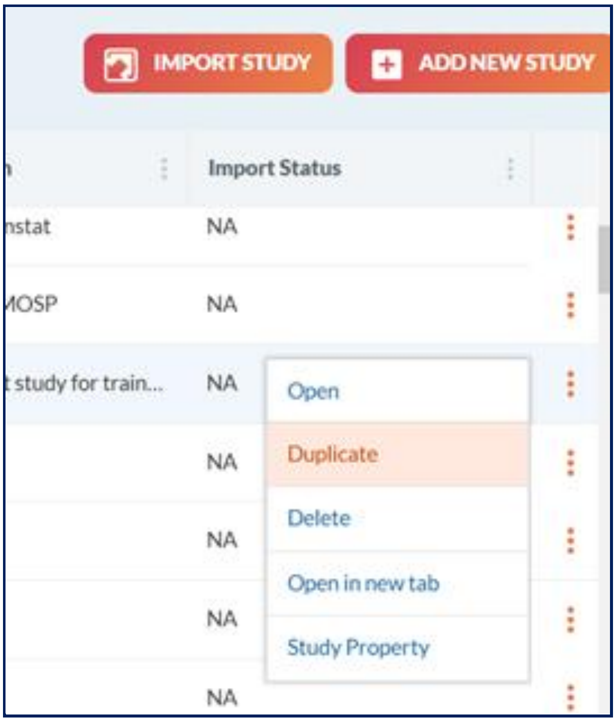


Fig. 4.12. Duplicating a study

The ***Duplicate study*** form is displayed.

5. Enter the required details in their respective fields, and then click **DUPLICATE**.

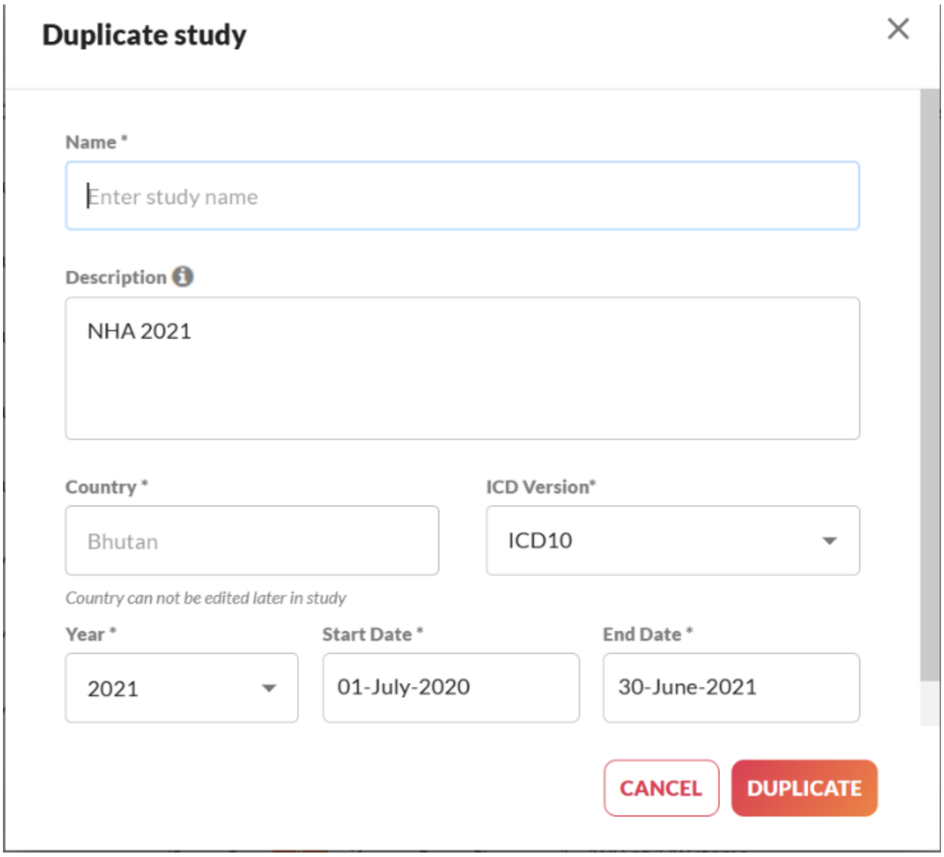


Fig. 4.13. The *Duplicate study* form

When duplication of the study is complete, a confirmation is displayed. The newly created study will be added to the list of studies on the ***Study*** page.

Table 4.2 shows the fields presented on the ***Duplicate study*** page.

Table 4.2. Description of fields and buttons on the *Duplicate study* page

Field/button name	Description
Name	Enter the name for the new study.
Description	You can edit the description for the new study.
Country	It displays the country name for which the study is prepared. The value in this field is filled automatically using the country name from original study. The field cannot be updated.
ICD Version	Mandatory field, one of ICD-9, ICD-10 or ICD-11 used in the country should be chosen. **After this screen, the version cannot be changed.**
Year	You can edit the year for the new study.
Start Date	To select the time boundary for the exercise, you can edit its start date. All stakeholders must report their expenditure data according to this boundary, so it should be based on either calendar year or government fiscal year.
End Date	To select the time boundary for the exercise, you can edit its end date. All stake-holders must report their expenditure data according to this boundary, so it should be based on either calendar year or government fiscal year.

When a study has been successfully duplicated, a notification will show in a dialog box and you will be asked if you want to refresh the page. If you click on **YES**, the page will refresh, and the duplicated study will be shown. If you click on **NO**, it will not show in the list until the page is manually refreshed.

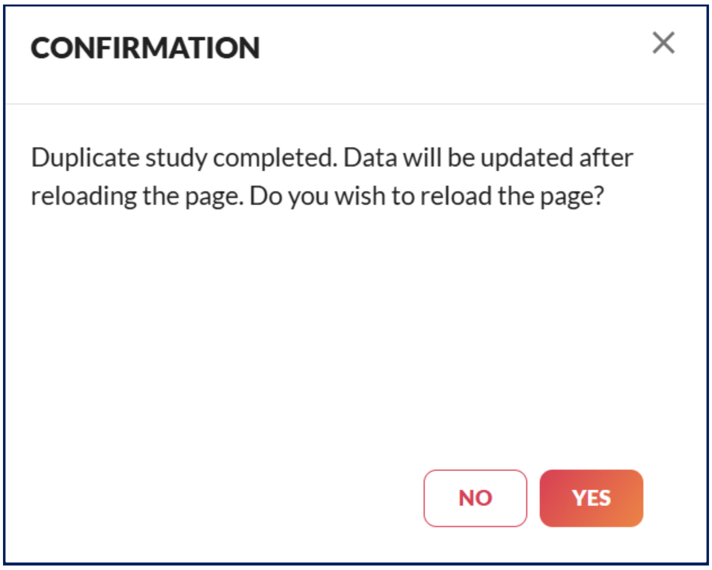


Fig. 4.14. Confirmation of duplicate study completion

The **NOTIFICATION** section shows the status of the duplication process for the study that is being duplicated.

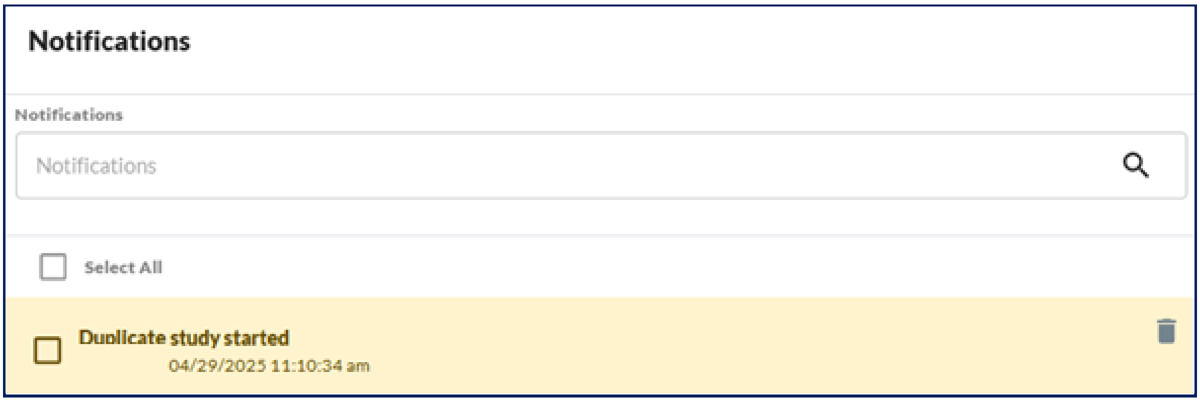


Fig. 4.15. Notification that duplication of a study has started

Fig. 4.16. Notification that duplication of a study is complete

4.5 Importing a study

You can import a study by directly importing a `.ptstudy` (PT study) file.

4.5.1 Import a PT study

You can import a PT study into the new HAPT tool directly.

To import a PT study into the new HAPT application, follow these steps.

1. On the ***Study*** page, click **IMPORT STUDY** in the HAPT application.

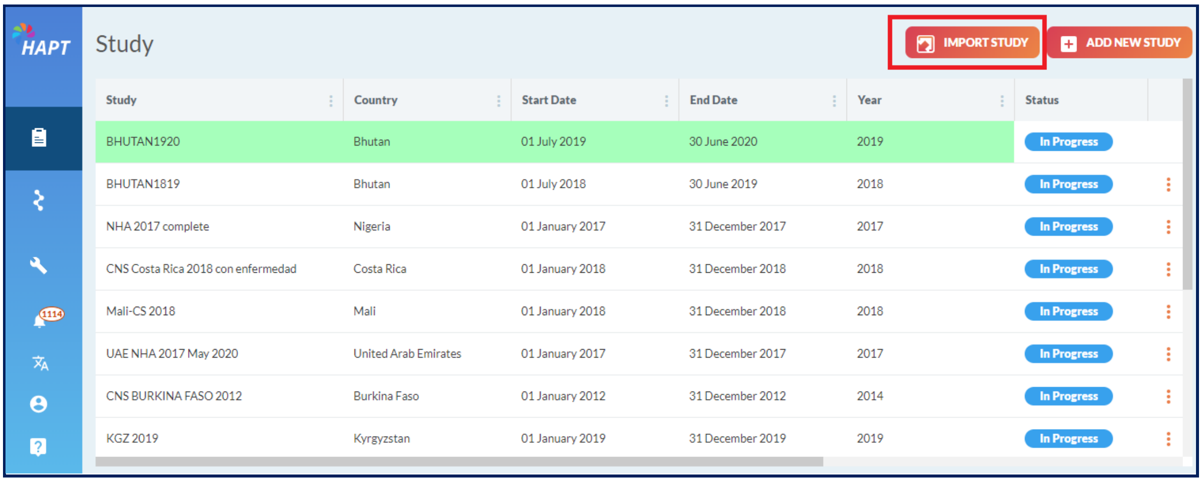


Fig. 4.17. Importing a study

2. From the *Import Study* drop-down, click **Import PT Study**.

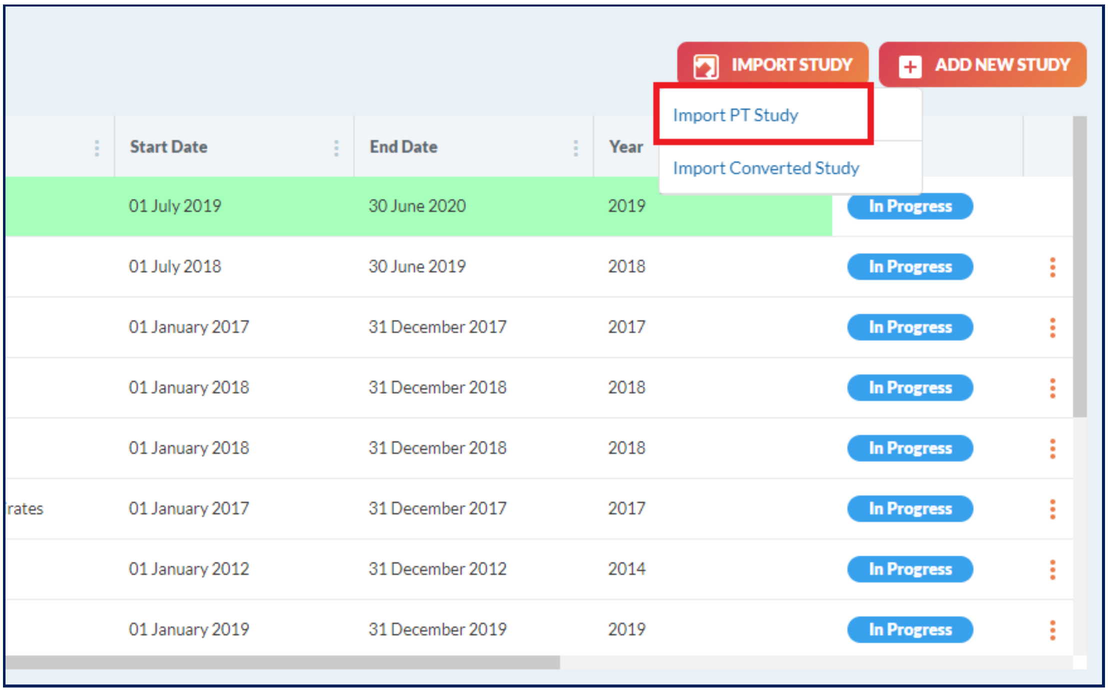


Fig. 4.18. Import PT Study

3. Click **FILE UPLOAD** and a file chooser window will open. Use this to select the study to import, which should be a valid PT study in `.ptstudy` format.

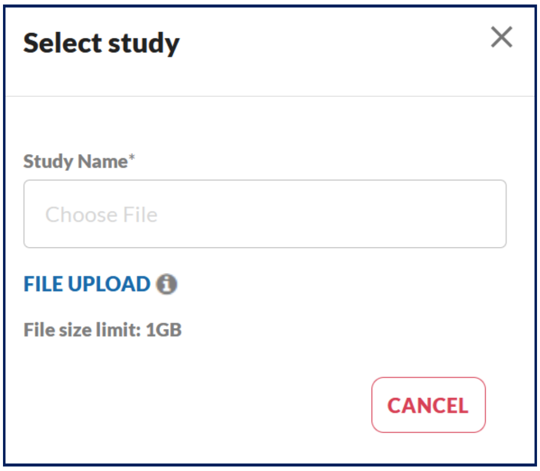


Fig. 4.19. Select study

4. In the opened window, provide all study properties: change study name, if needed, provide a description (optional), select the study status (“In-progress” or “Completed”), the year, and ICD version, then click **IMPORT**.

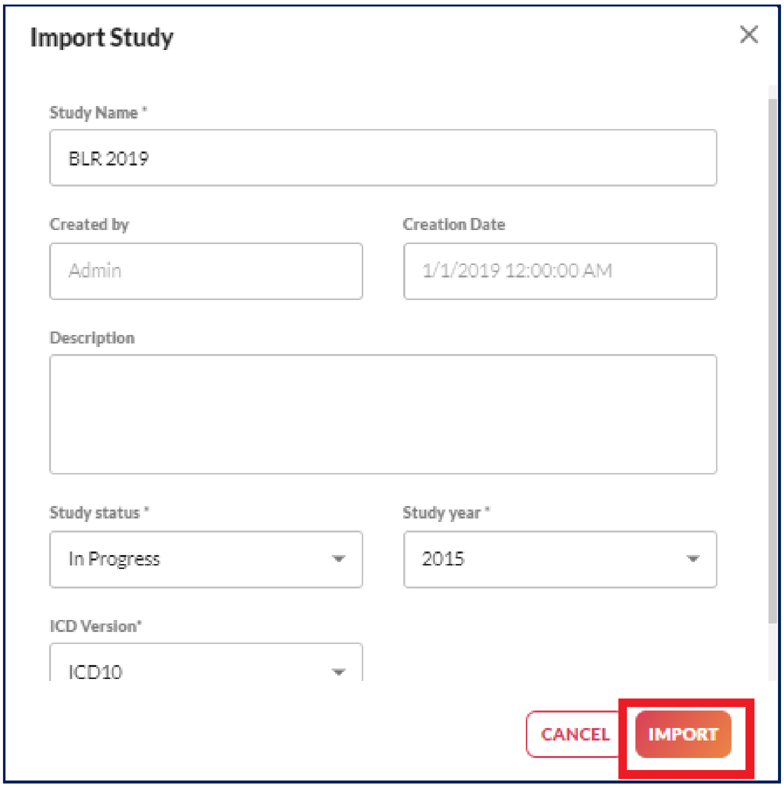


Fig. 4.20. The *Import Study* form

5. On the *Confirmation* form, click **YES**.

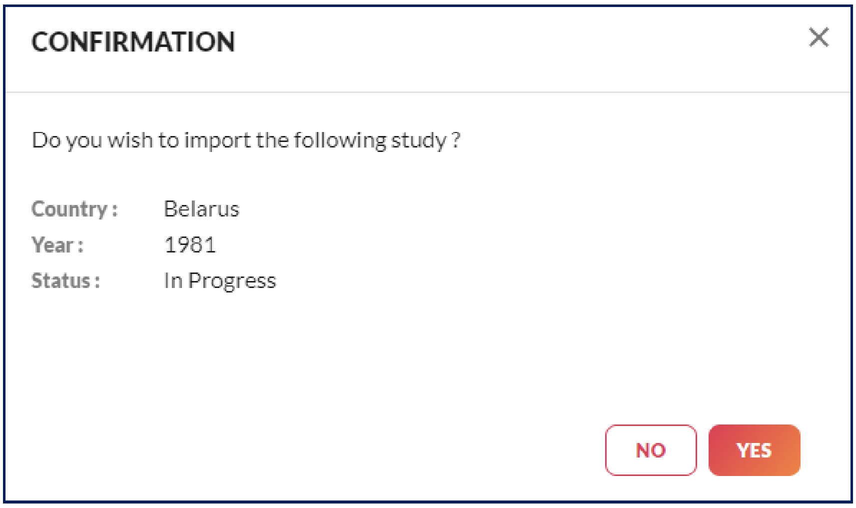


Fig. 4.21. *Confirmation* form

6. When import starts, a notification appears.

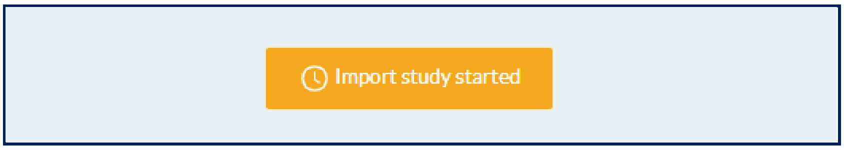


Fig.4.22. Notification that study import has started

Fig. 4.23. Notification that study migration is in progress; migration is part of import

Once import of the PT study starts, the imported PT study will be shown in the list on the ***Study*** page, under "Import Status".

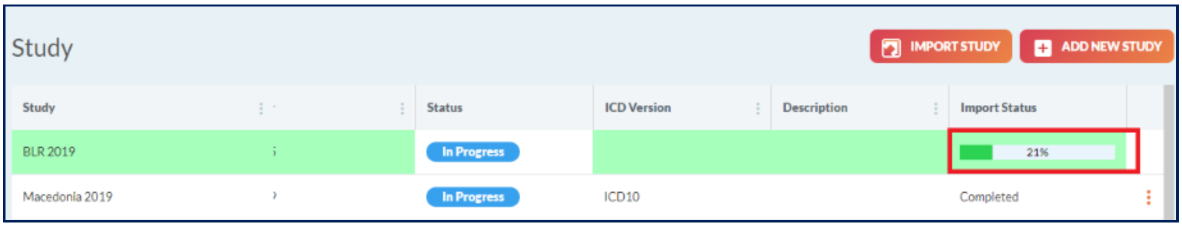


Fig. 4.24. Import status

After import of the PT study is complete, the imported study will be shown in the list on the ***Study*** page with import status as “Completed”.

The status of study import (started/completed/failed) is shown in the **NOTIFICATION** section.

Notifications are colour-coded based on the status of the import process:

- green – import completed successfully
- yellow – import started
- blue – import completed with some errors
- red – import failed.

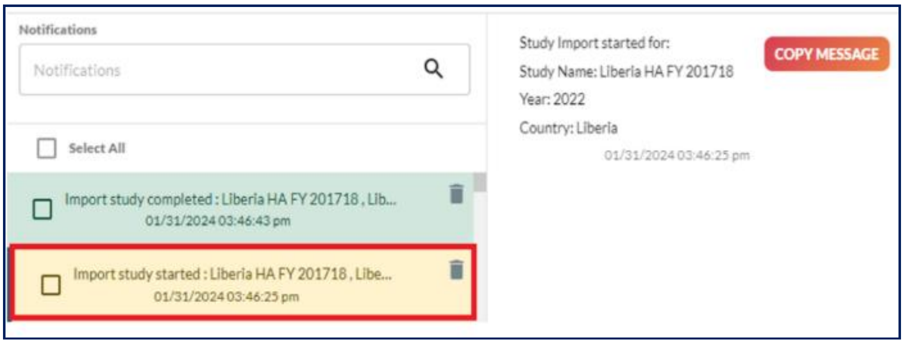


Fig. 4.25. Notification that import of a study has started

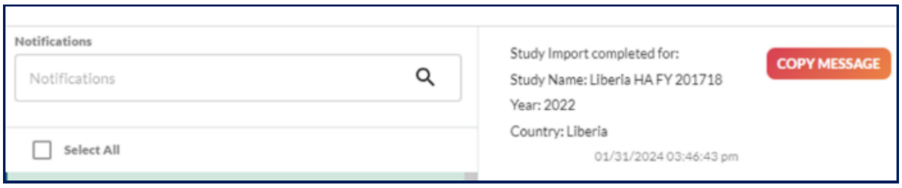


Fig. 4.26. Notification that import of a study has completed

If the import of the PT study failed for any reason, a notification (Fig. 4.27) will be shown and an email address for technical support will be provided.

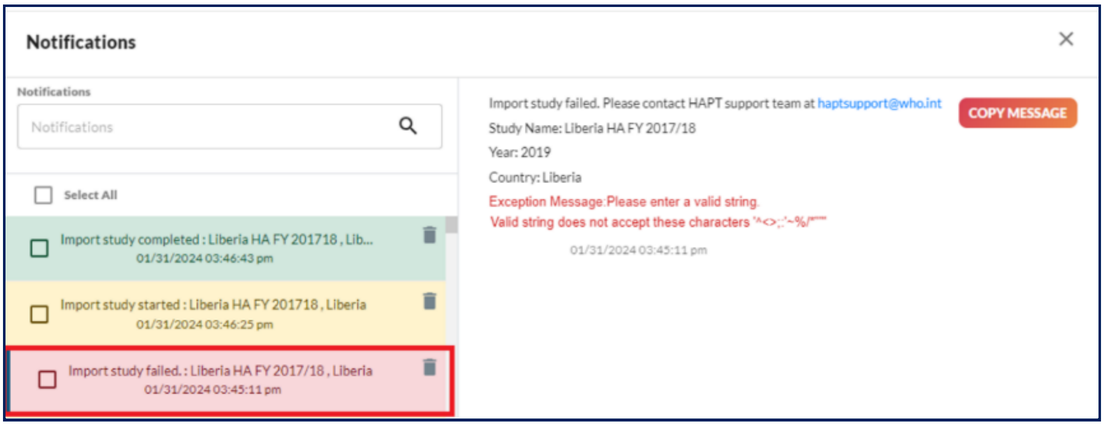


Fig. 4.27. Notification that import of study failed

Note

- The Import PT study option can only be used to import files in `.ptstudy` format.
- Importing a study takes time, which depends on the size of the study.
- The study name, author ("Created by"), creation date and description are all pre-filled from the imported study. Edit the name and description if you want to. The study name is mandatory.
- A study will not be imported if
  - country is missing in the `.ptstudy` file
  - country name is missing in the `.ptstudy` file
  - study start date is missing in the `.ptstudy` file
  - study end date is missing in the `.ptstudy` file
  - currency code is missing in the `.ptstudy` file
  - the currency as used in the old tool does not exist in the new HAPT application.
- Import study may fail for other unknown reasons as well. If it does, a notification is shown.

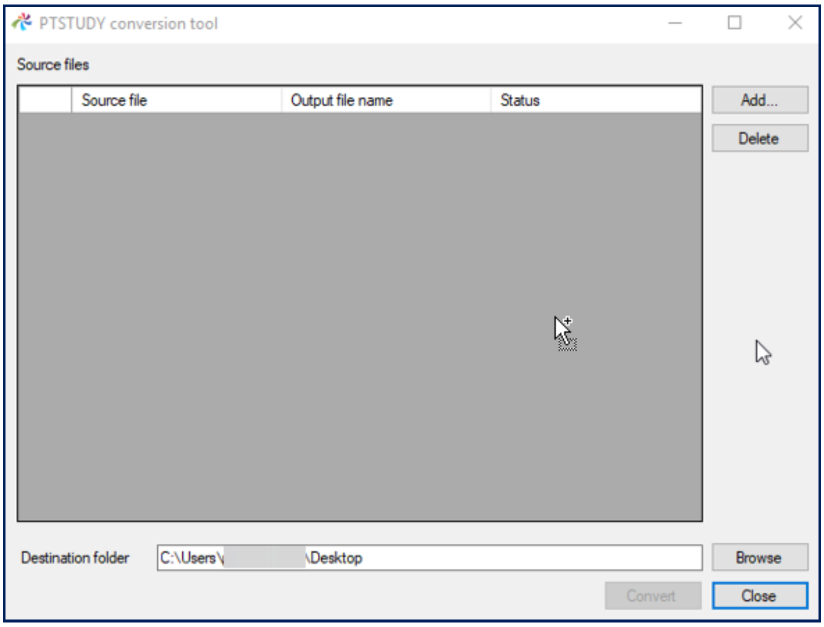


Fig. 4.28. Select the `.zip` file

4.6 Working with a study

The *Study* page consists of two panes.

1. *Title* pane: This pane displays the name of the study, the country for which it was created, its start date and end date and date on which it was most recently updated. It also displays “Edit study”, “Library” and “Decimal point” options. Go back to the studies list by clicking **All studies** (top-left).

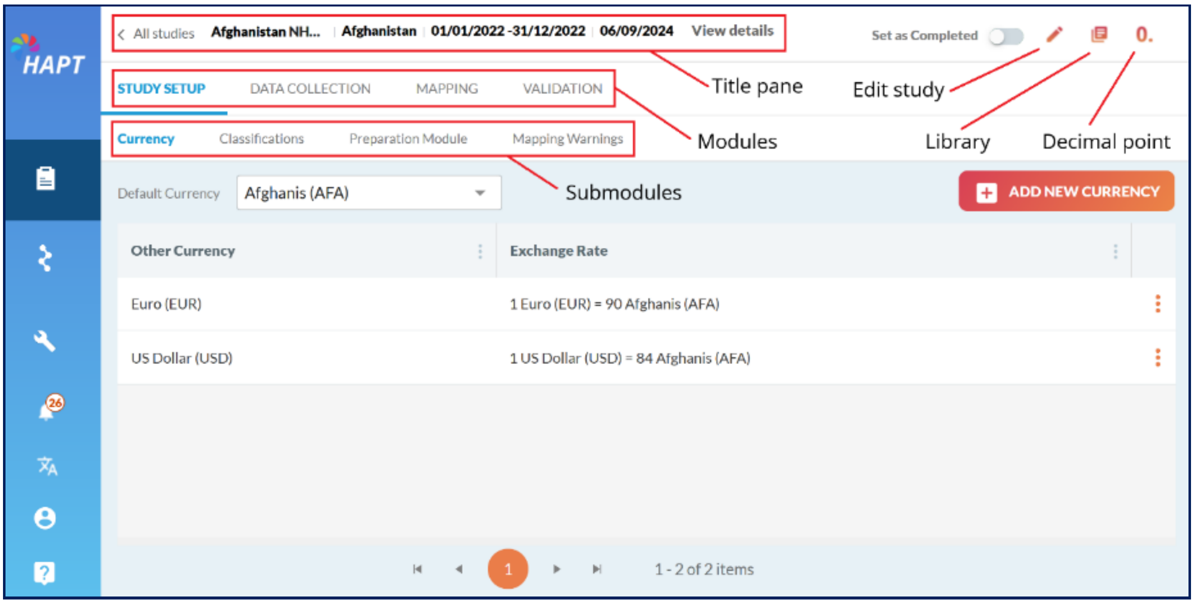


Fig. 4.29. The *Title* pane and other components visible after selecting the STUDY menu

2. ***Modules*** pane: There are four modules to navigate in the tool for producing a HAPT study. Each module contains submodules.

4.7 Changing a study status

Because the system and studies are online and can be used by different users at once, it is important to indicate when a study is complete, and data can be used. A study can be in one of two states: "In-progress" (when the HA team is working on the study) or "Completed", when the process is finished. The study status can be modified and switched from one status to the other by the TL at any time.

Setting the status of a study to "Completed" is important because only one study, for the same country and year, can be used for time-trend analysis in the **ANALYSIS** section. If for any reason a study was duplicated, there may be two studies for the same country and year. In this case, only one of these studies can be defined as "Completed", and that is the study that will be used for analysis.

To change the status of a study to "Completed", follow these steps.

1. Open the study which you want to set as "Completed".
2. Click **Set as Completed**.

Fig. 4.30. Marking a study as "Completed"

A message asking you to confirm the action is displayed.

3. To confirm, click **YES**.

The **Set as Completed** button turns green, indicating change of status, and a confirmation message is displayed.

A study cannot be updated if in the "Completed" status. The TL must set the study status to "In-progress" to be able to manipulate it. To change the status of study to "In-progress", follow the previous steps and click **Set as Completed**.

Note

- Only a TL can change the study status.
- The study status can be switched from one to the other by the TL at any time.
- Only one study for a country for one year can be in "Completed" status.

4.8 Editing a study

4.8.1 Editing a study after opening a study

To edit a study, follow these steps.

1. On the navigation panel, open section **STUDY** by clicking its icon ( ).
2. Open the study to edit.
3. Click the edit icon ( ) at the top-right corner.
4. The ***Edit Study*** form is displayed.

Edit the required details.

5. Click **SAVE**.

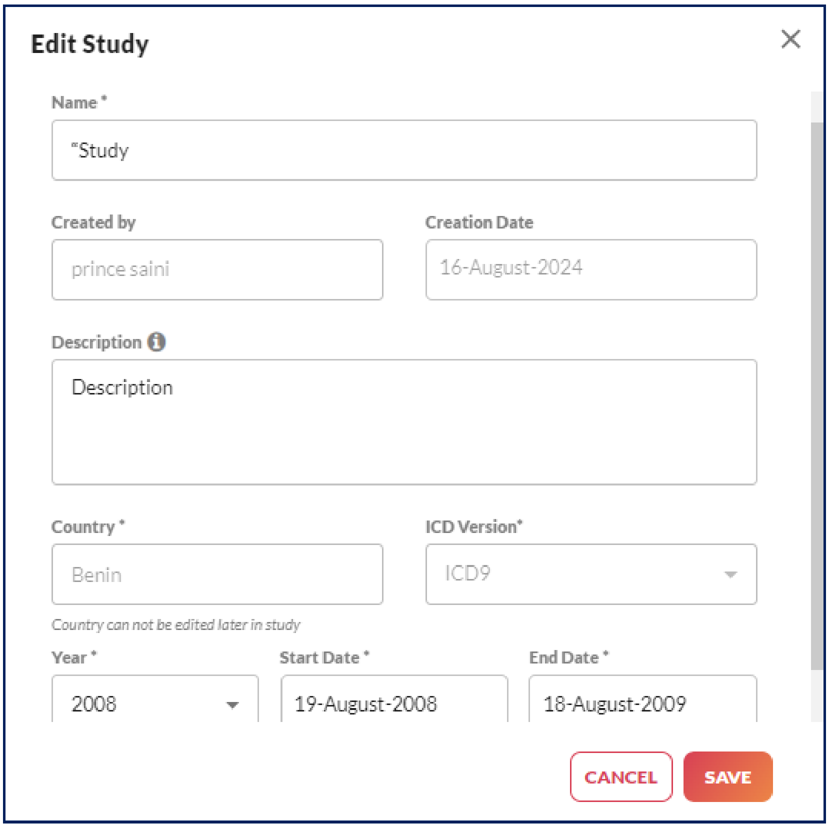


Fig. 4.31. The *Edit Study* form

If the save is successful, you will see a notification of success and be asked to refresh the page.

Click **YES**.

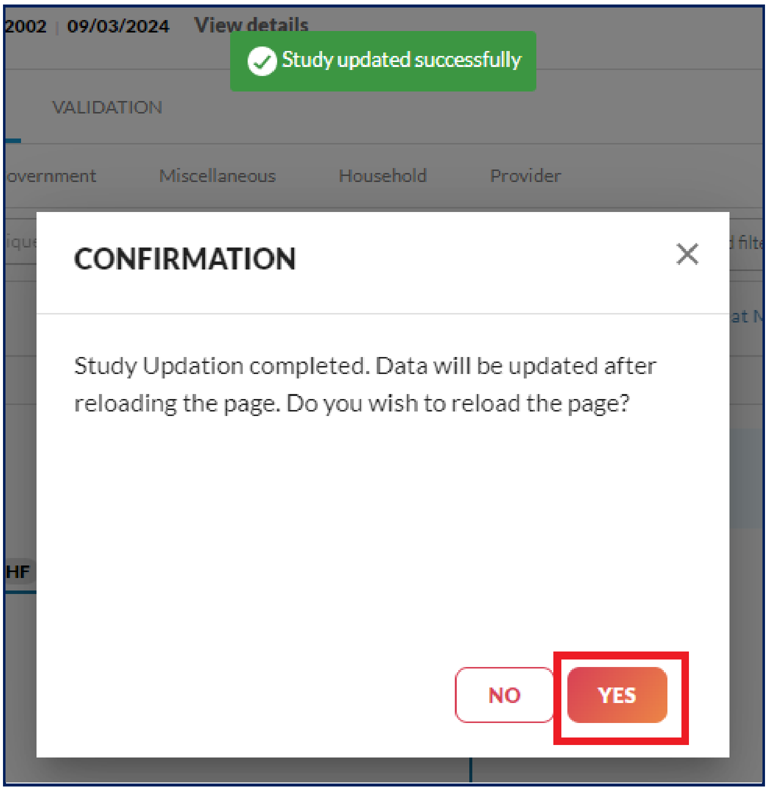


Fig. 4.32. The *Confirmation* form

The page refreshes and study details are updated.

Note

- The country cannot be changed in the ***Edit Study*** form – you must create a new study with the correct country and delete the old one.
- You can edit details of studies whose status is "In-progress".

4.8.2 Editing a study from the *Study* page

This feature allows a TL to edit study properties from the ***Study*** page.

To edit a study, follow these steps.

1. On the ***Study*** page, click the ellipsis (⋮) corresponding to the study you want to edit.
2. Click **Study Property**.

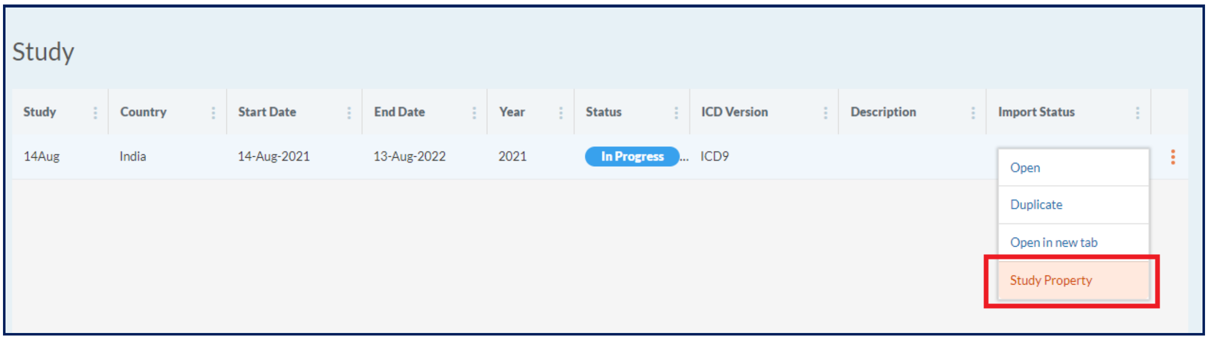


Fig. 4.33. Choosing to edit study properties

3. The ***Edit Study*** form is displayed.
4. Edit the required details and click **SAVE**.

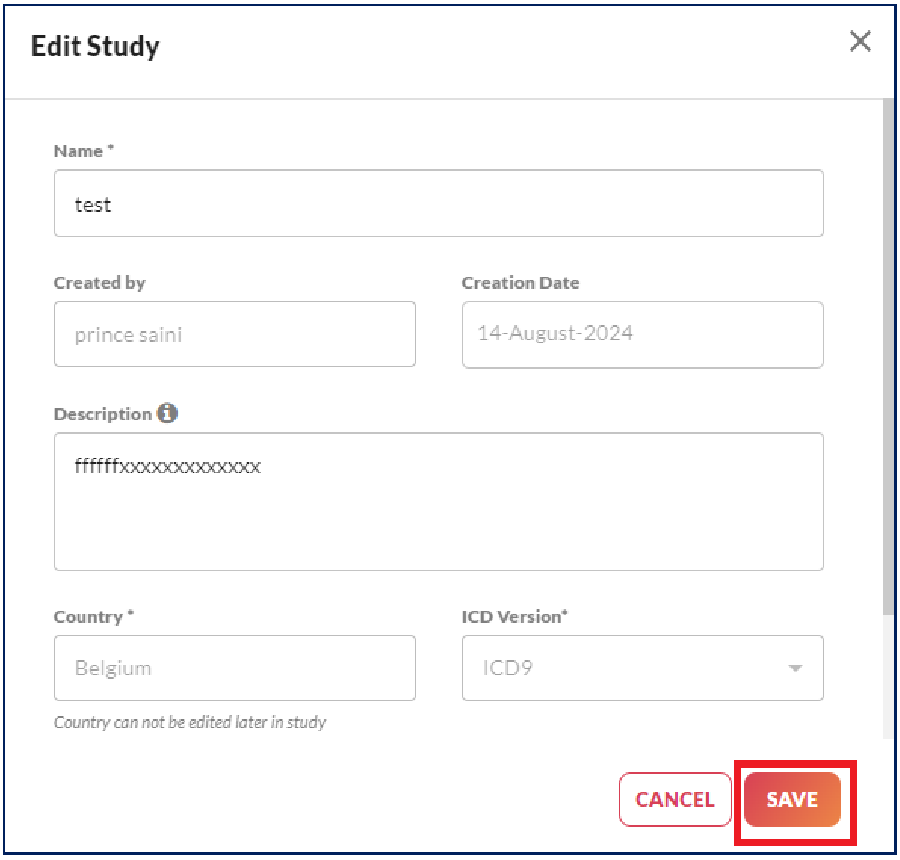


Fig. 4.34. The *Edit Study* form

5. If the study is edited successfully, a success notification is displayed, and you are asked to refresh the page. Click **YES**.

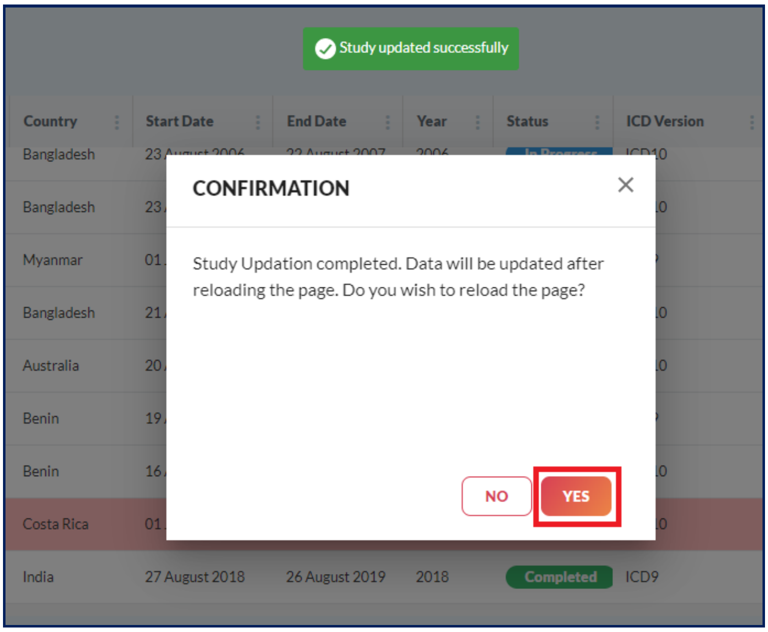


Fig. 4.35. The *Confirmation* form

The page refreshes and study details are updated.

Table 4.3. Description of fields and buttons for the *Edit Study* page

Field/button name	Description
Name	Shows the name of the study. Can be edited.
Created by	Displays the name of the user who created the study. This is a read-only field.
Creation date	Displays the date when the study was created. This is a read-only field.
Description	You can edit or add a description of the study – e.g. list the HA team members and say what is special about this study.
Country	Displays the country for which the study is prepared. This is a read-only field.
ICD Version	Displays the ICD version selected at the time of adding or importing the study. This is a read-only field.
Year	Displays the year for the study. You can edit the year of a study, starting from the year 2000.
Start Date	Shows the start date for the study. You can edit the start date of a study, starting from the year 2000.
End Date	Shows the end date for the study. You can edit the end date of a study, starting from the year 2000.

Note

- The country cannot be edited in the ***Edit Study*** form – you must create a new study with the correct country name and delete the old one.
- You can update study properties for both newly created and imported studies and for all the studies whose status is “In-progress” on the ***Study*** page.
- Study properties are not editable for studies whose status is “Completed”. If you try to update a property for a “Completed” study, an error message is displayed.
  - “Study is in Completed state, please change to ‘In-progress’ to perform any operation.”
- You can see the “Study Property” option for all the in-progress studies, but not for completed ones.
- You can see the “Study Property” option for both newly created and imported studies.

There are two features within the library of a study: Comments and Library. To manage the library, follow these steps.

1. In the open study, click the library icon ( ) at the top-right corner.

The ***Library*** page gets displayed. It includes two subsections, Comments and Library.

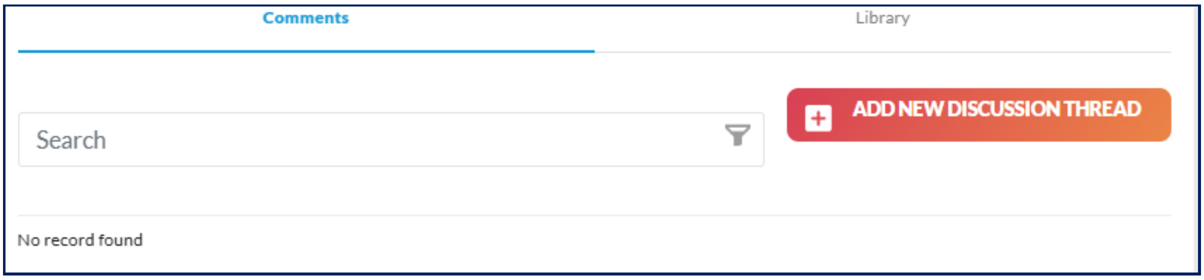


Fig. 4.36. The *Library* page, with the Comments tab selected

Table 4.4 shows the fields, buttons, and icons present on the ***Library*** page.

Table 4.4. Description of fields and buttons on the *Library* page

Field/button name	Description
Comments	This feature can be used to communicate with team members and other users. The communications and comments are stored for as long as needed.
Library	Stores documents and files within HAPT. Reports, methodological documents, validation documents etc. can be uploaded.
Search	Allows searching for a conversation thread within comments.
ADD NEW DISCUSSION THREAD	Allows adding a comment.

1. In the Comments tab (Fig. 4.36), click **ADD NEW DISCUSSION THREAD**.
2. Fill the required details, and then click **ADD**.

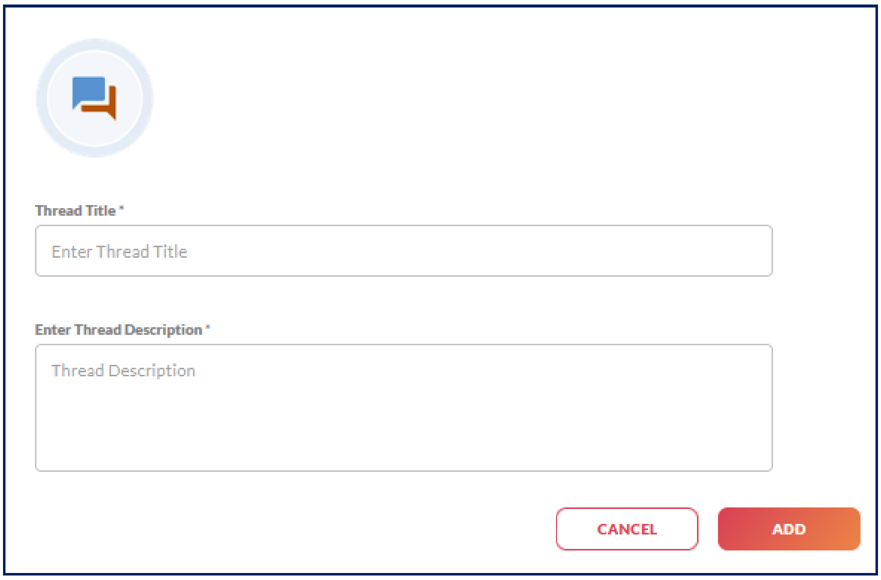


Fig. 4.37. Adding a new discussion thread

The thread is added successfully.

Note

- A discussion thread can be deleted by clicking the delete icon ( ).
- A discussion thread can be edited by clicking the edit icon ( ).

4.8.2.1 Comment status

Clicking the filter icon ( ) in the search box allows you to search for comments with a specific status – all, resolved or active.

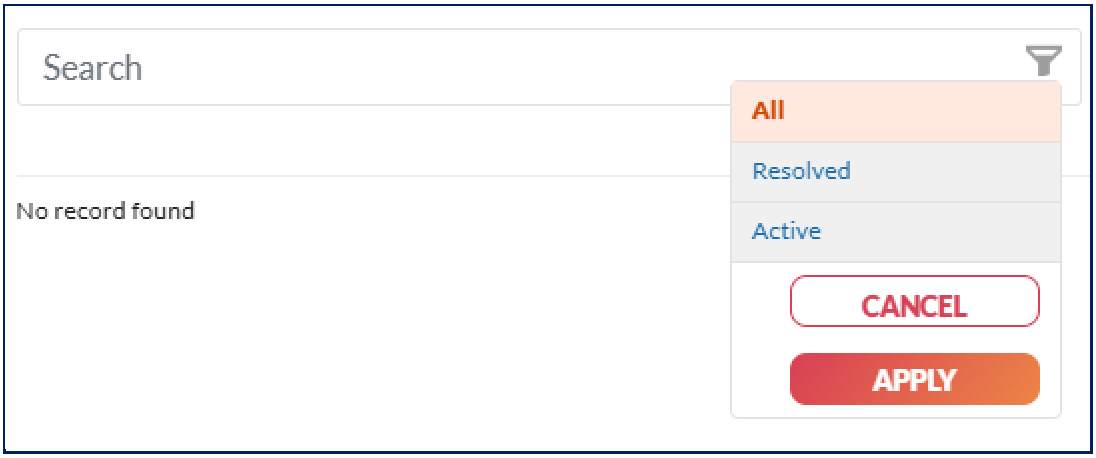


Fig. 4.38. Selecting a comment status to search on

Table 4.5 shows the fields, buttons and icons present on the Comments tab.

Table 4.5. Description of fields and buttons on the Comments tab

Field/button name	Description
All	Displays all comments available.
Resolved	Displays the resolved comments only.
Active	Displays the active comments only (those which are yet to be resolved).

To filter the comments according to status, follow these steps.

1. Click the filter icon ( ) in the “Search” field.
2. Select the necessary status, and then click **APPLY**.

Tagging comments

With this feature, it is possible to tag other users, data source types, and data sources while replying to a comment.

Table 4.6. Comment tags

Tags	Description
@	Tags a user assigned to the study.
!	Tags a data source type used in the study.
#	Tags a data source used in the study.

4.8.3 Managing a library

The library stores documents and files within HAPT. Reports, methodological documents, validation documents and so on can be uploaded to the library to keep all documentation in one place.

To import the files, follow these steps.

1. In the open study, click the library icon ( ) at the top-right corner.
2. Select the Library tab to import a document.

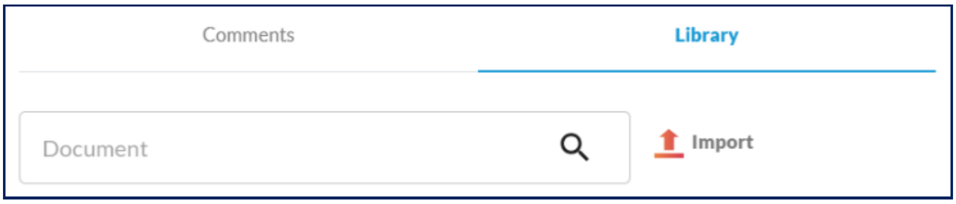


Fig. 4.39. The Library tab

3. Click **Import**.

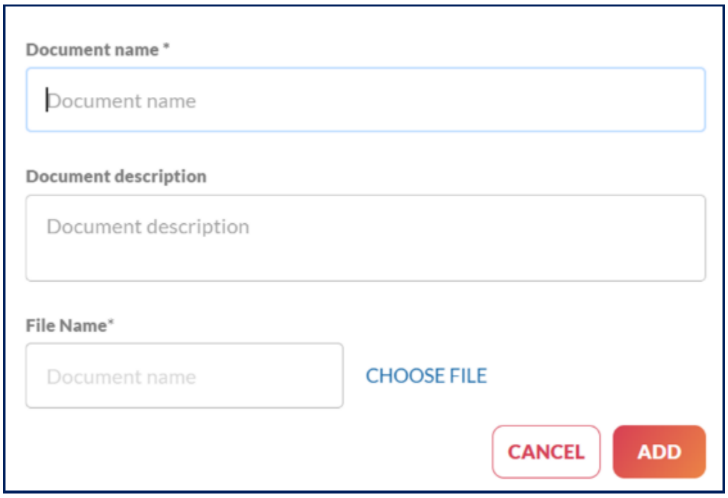


Fig. 4.40. Importing a document

The *Import Document* form is displayed.

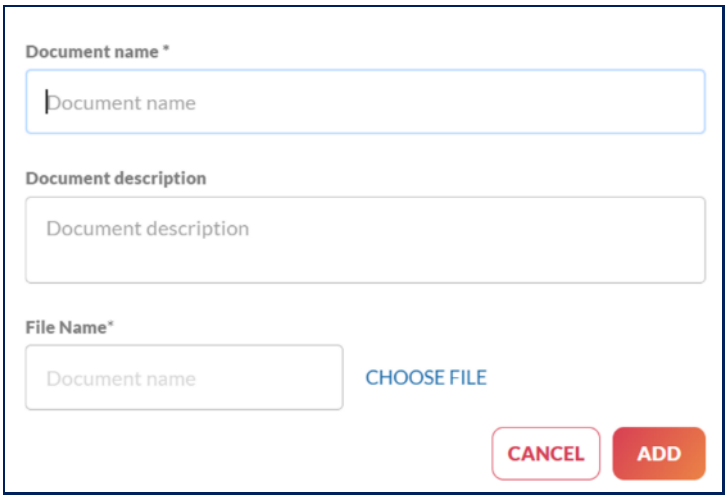


Fig. 4.41. The *Import document* form

4. Enter the required details.
5. Click **CHOOSE FILE**.

Fig. 4.42. Choosing the document to add to the library

6. Click **ADD**.

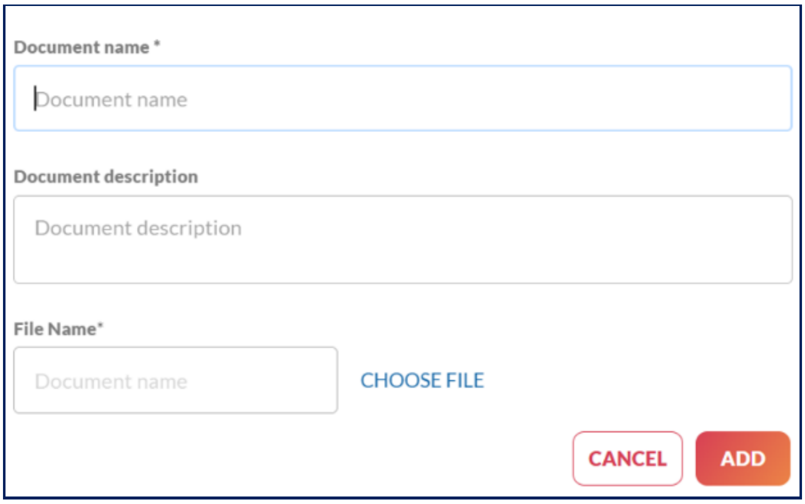


Fig. 4.43. Adding a document

The document is imported successfully.

Note

- A document can be deleted by clicking the delete icon ( ).
- A document can be edited by clicking the edit icon ( ).

4.9 Selecting the number of decimal places for reporting

In HAPT, the decimal points option allows you to select the number of decimal places to show when viewing figures. Expenditure amount can be entered up to 10 decimal places, but the amount will be displayed only up to the selected number of places. To select the decimal places to be shown, follow the steps given below. It is assumed that the required study has been already opened.

The **STUDY SETUP** module is opened when you open a study after choosing the **STUDY** item in the navigation panel.

1. Click the decimal places icon ( ) at the top-right corner of the **STUDY SETUP** module.

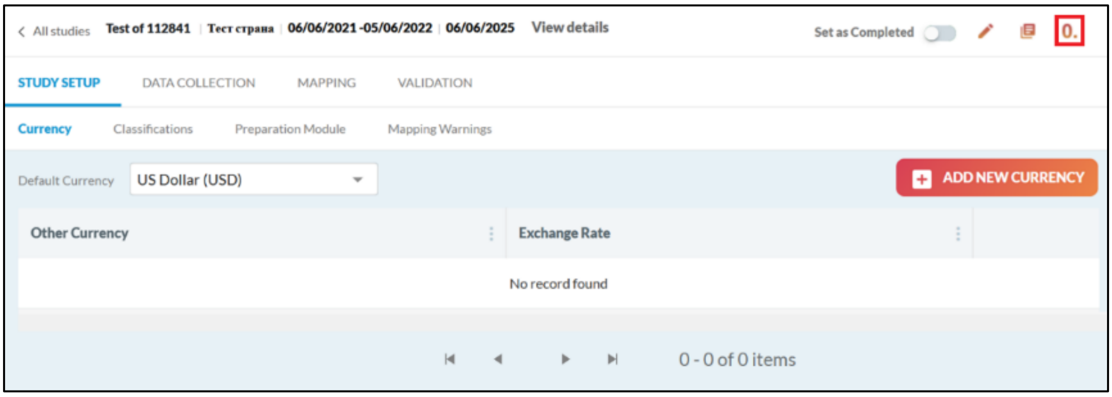


Fig. 4.44. Selecting decimal point

The ***Decimal Points*** form is displayed.

2. Select the decimal places from the ***No. of decimal points to view*** drop-down list.

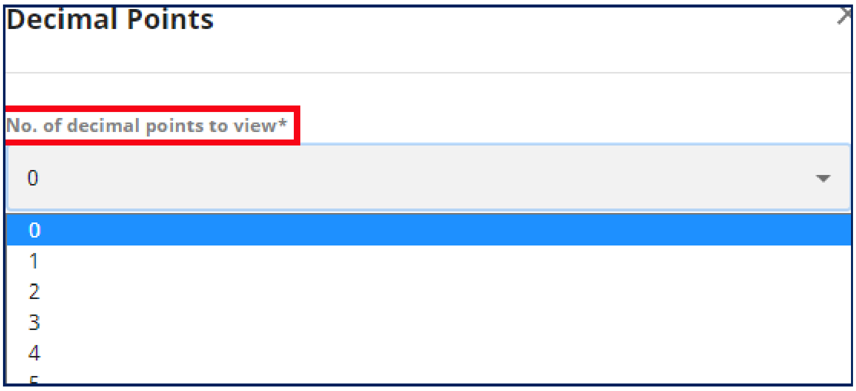


Fig. 4.45. Selecting decimal points (places)

3. Click **SAVE**.

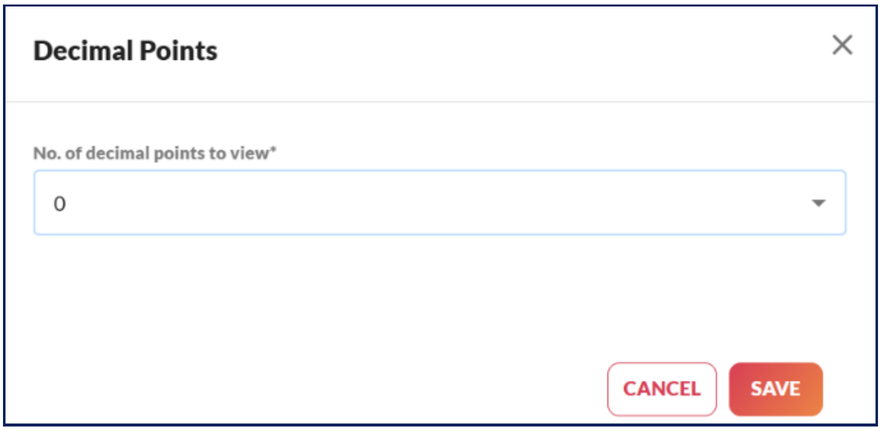


Fig. 4.46. Saving decimal points (places)

The decimal point value is updated successfully.

Note

Although expenditure amounts can be entered with up to 10 decimal places, the maximum number of decimal points displayed is five.

4.10 STUDY SETUP module

The next step to produce a HA study using HAPT is customization. The **STUDY SETUP** module establishes the general information of the HA as well as the HA classifications and codes that will be applied during the analysis. This module has three submodules: **Currency**, **Classification** and **Preparation**. After studies have been set up, you may also see Mapping Warnings.

Customization is completed by the TL. The TL is prompted to enter general information, answer policy questions and set classifications and codes that are then applied to the whole study.

HAPT allows the HA team to develop codes and save them in the system where they can be accessed year to year. This is advantageous for two main reasons. First, it improves quality by ensuring that classifications are consistent and will lead to more accurate time series analysis. Being able to store the codes in one location also reduces errors that result from transferring code lists electronically or on paper.

Second, having the custom classifications directly within the tool saves time in later steps when HA team members would otherwise have to switch back and forth between documents or track down the latest version of the file to refer to the classifications.

4.10.1 Currency submodule

Donors and NGOs can report in different currencies. The HA team should add all currencies that will be used in the study. Make sure the list of currencies in the study is comprehensive before beginning the data collection, because it is critical.

The currency can be managed only if a study is available in the application. Refer to Adding a study and Opening an existing study. The TL can add, delete, or edit available currencies. The TL can also add the exchange rate or invert rate for the required currency.

4.10.1.1 Adding a new currency

The TL can add a new currency to an existing or new study. Open the study to which you want to add the currency. By default, the **STUDY SETUP** module **Currency** submodule is displayed.

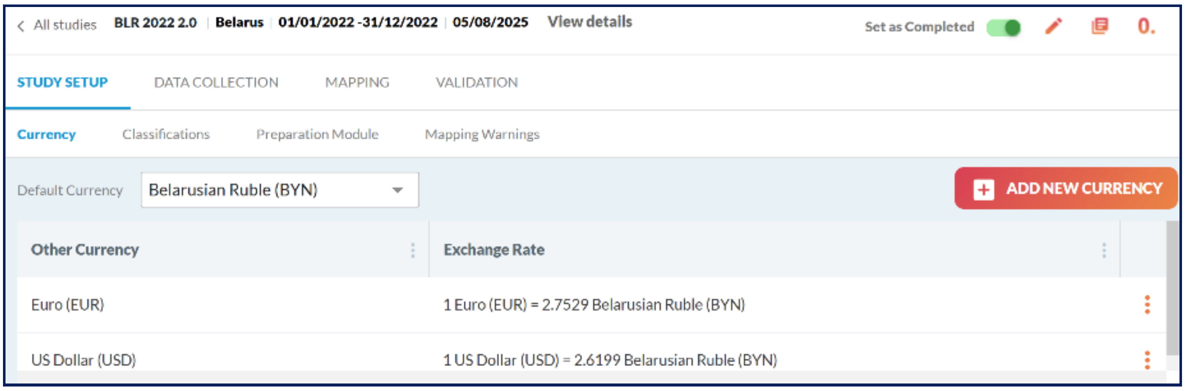


Fig. 4.47. The Currency submodule

Table 4.7. Description of fields, buttons and icons in the Currency submodule of the STUDY SETUP module

Field/button name	Description
Default Currency	Shows the default currency for the selected country. To change the default currency, click on the ***Default Currency*** drop-down menu and then select the required currency.
ADD NEW CURRENCY	Allows adding a new currency to perform exchange rate calculations.
Other Currency	Shows any currencies apart from the default currency for that study.
Exchange Rate	Shows the exchange rate, which is specified while adding the new currency.

To add another currency, follow these steps.

1. Click **ADD NEW CURRENCY**.

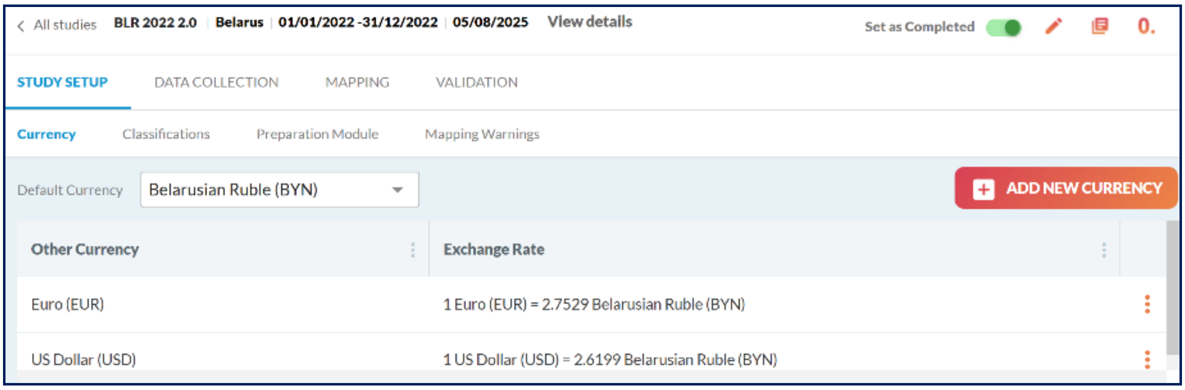


Fig. 4.48. Adding a new currency

The ***Add Other Currency*** form is displayed.

1. Select the required currency from the ***Other Currency*** drop-down list.

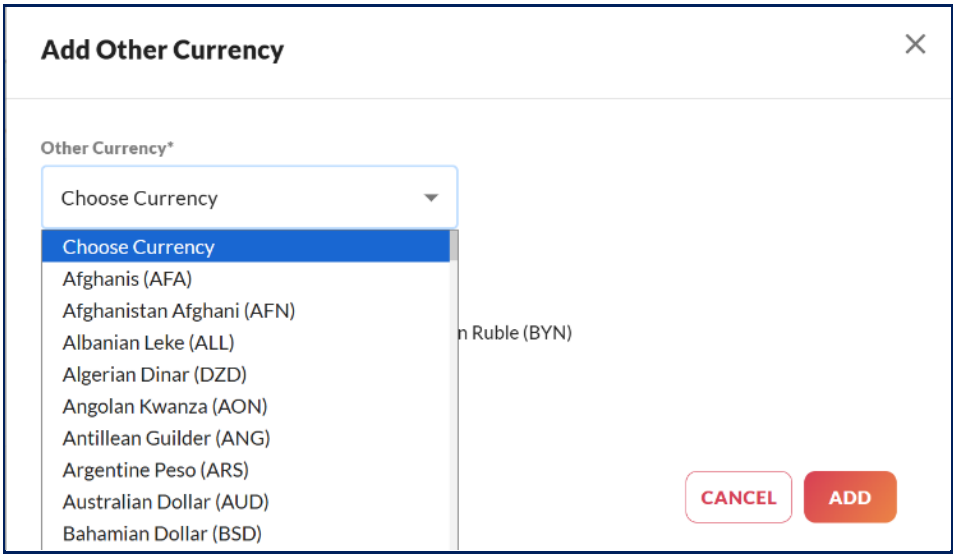


Fig. 4.49. Choosing a currency

2. Enter the exchange rate for the selected currency.

Note

- Make sure you write the correct exchange rate for the currency you have selected.
- The exchange rate should be in relation to the exercise's reported currency.

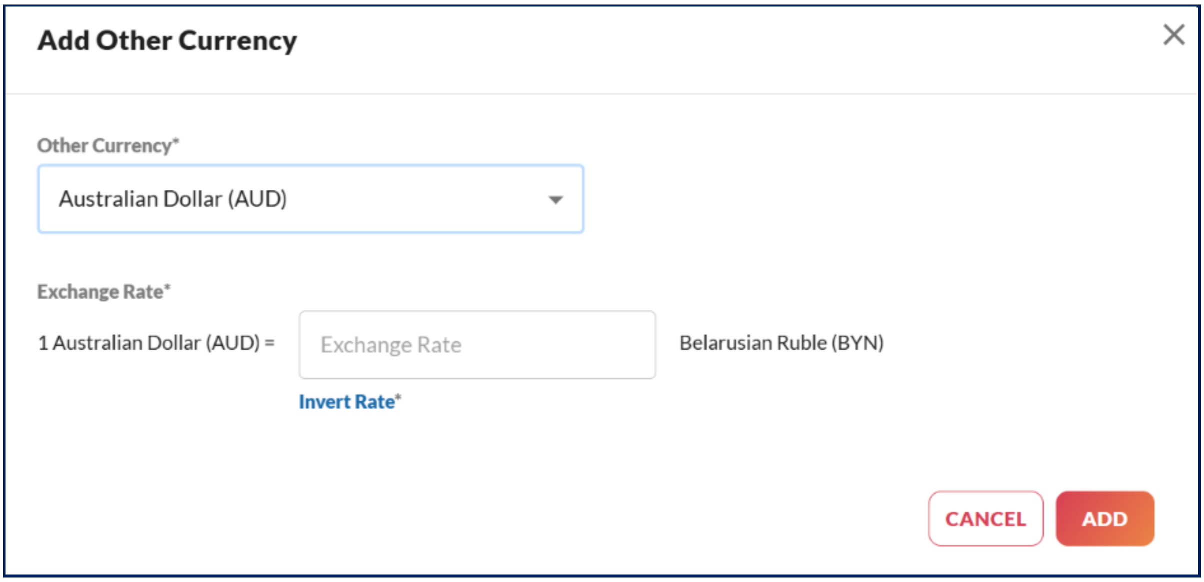


Fig. 4.50. Adding an exchange rate

Note

- You can click **Invert Rate*** to provide an exchange rate between the default currency and another currency or vice versa.
- Enter the exchange rate and then click **Invert Rate*** to see the exchange rate. Alternatively, click **Invert Rate*** and then enter exchange rate.

Fig. 4.51. Invert Rate

3. Click **ADD**.

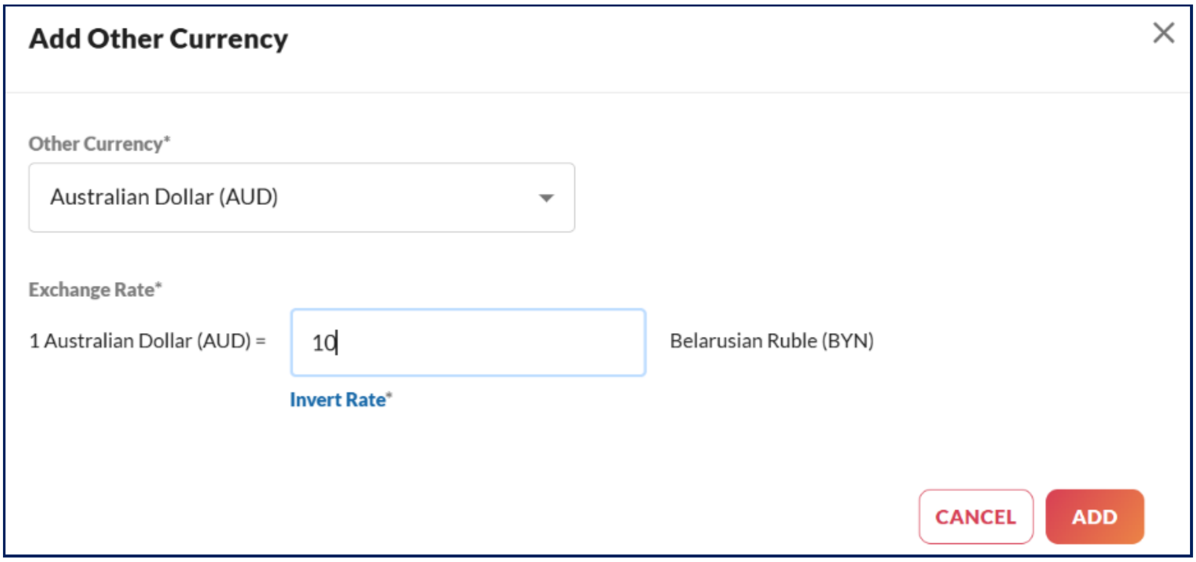


Fig. 4.52. Adding currency

The currency is added successfully.

4.10.1.2 Editing a currency

Editing a currency allows you to edit a previous value of the exchange rate. While editing a currency, if you change the default currency, it is important to change the exchange rate also; otherwise, currency calculations may be wrong.

To edit a currency, follow these steps.

1. Click the ellipsis (⋮) corresponding to the study you want to edit.

2. Click **Edit**.

Fig. 4.53. Editing a currency

Note

Make sure you define the exchange rate again when you change the default currency.

Warning

Changing the default currency after importing the data may cause a problem. Hence, we recommend adding the default currency before importing data.

4.10.1.2.1 Edit default currency

1. Select any currency from the drop-down to change the default currency of a study.

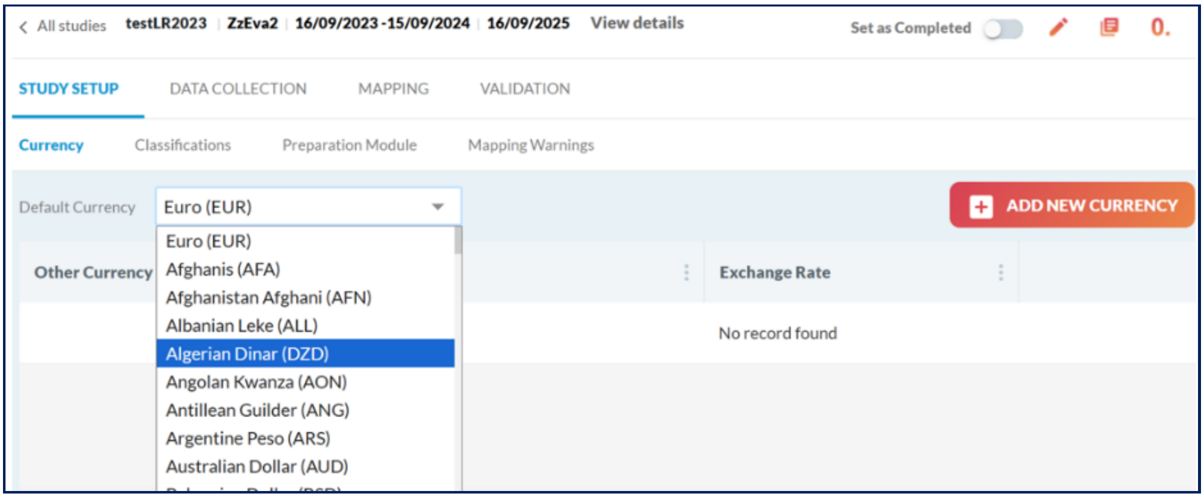


Fig. 4.54. Changing the default currency

4.10.1.3 Deleting a currency

Note

Make sure you are in the correct study when you delete a currency!

Warning

- This action cannot be undone.
- Deleting a currency feature deletes all related details and associated data.

To delete another currency, follow these steps.

1. Click the ellipsis (⋮) corresponding to the study that you want to delete.
2. Click **Delete**.

Fig. 4.55. Deleting a currency

A message asking you to confirm your action is displayed.

3. To confirm, click **YES**.

The currency is deleted, and a confirmation message is displayed.

4.10.2 Classifications submodule

HAPT provides a list of International Classifications for Health Accounts (ICHA) codes organized by financing source (FS), financing scheme (HF), health provider (HP), health function (HC) and capital expenditure (HK). These mandatory classifications are the essential minimum for any country to include in its HA study.

The TL can also create customized classifications categories to ensure that all health expenditures are captured in the estimation.

To manage the classifications, follow these steps.

1. Open the study for which you want to manage a classification. Refer to Opening an existing study.
2. Click select the **Classifications** submodule.

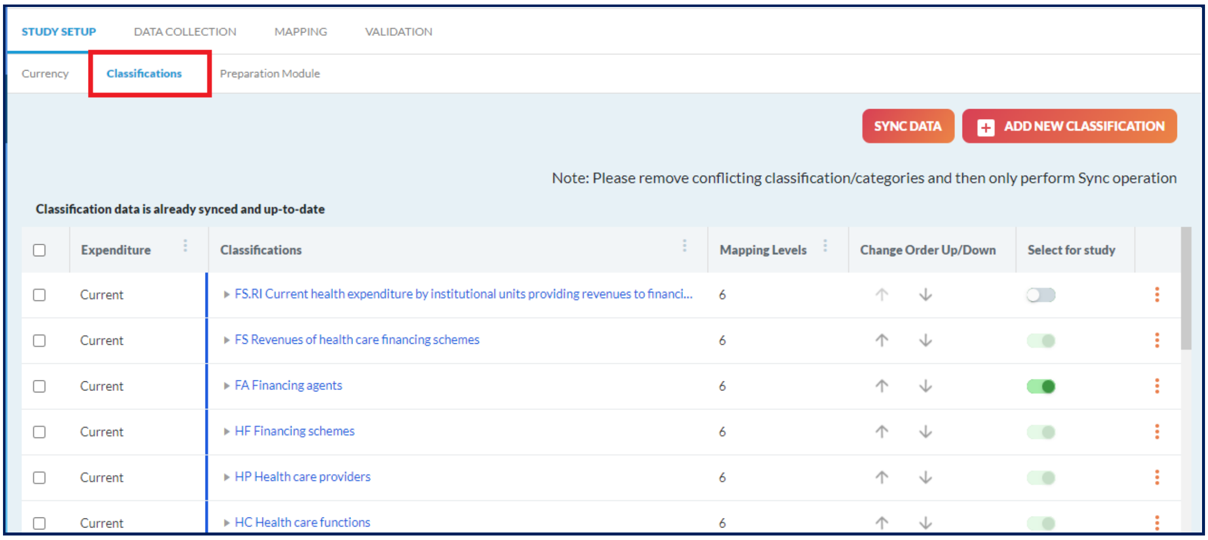


Fig. 4.56. The *Classifications* page, for managing classifications

The ***Classifications*** page is displayed.

Note

There are two types of ellipses on the ***Classification*** screen:

- row ellipses – help you select by filter
- column ellipses – help you export the classification.

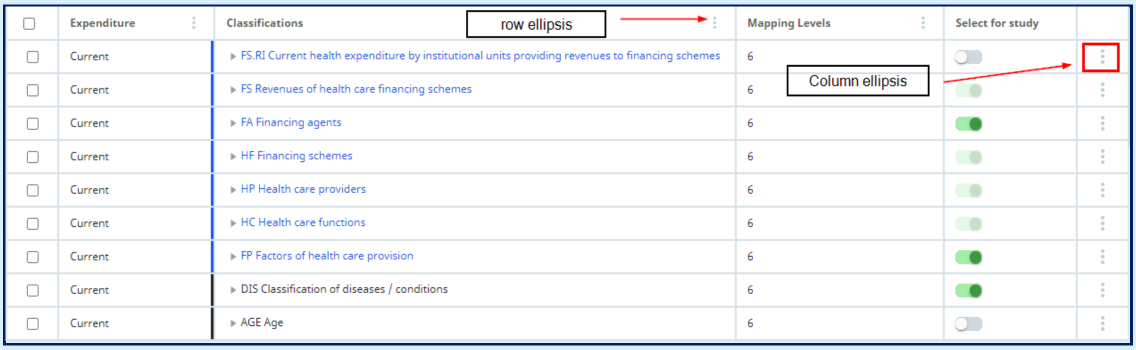
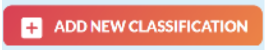
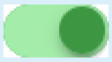
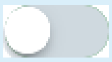


Fig. 4.57. Various ellipses and their functions

> **Note**
>
> Under each classification, there are classification categories. You can map categories up to six digit levels of disaggregation depending on your account type.

Table 4.8. Description of fields, buttons and icons in the Classifications submodule

Field/button/icon	Field/button name	Description
	ADD NEW CLASSIFICATION	Add a new classification.
	Filters field	Ellipsis corresponding to the column allows you to apply filters to the classification.
	SYNC DATA	The new classifications and categories added by TL are reflected in the current study.
	Select classification	Select classification to export.
	Select classification	Select classification for using and mapping.
	Deselect classification	Deselect the classification. If you deselect a classification, it will disappear from the mapping tree and the reports.
	Disabled button	The disabled button. You cannot select or deselect disabled classifications. Usually there are a few classifications which are by default selected for a study; such classifications cannot be de-selected. So, the button is disabled for such classifications.
–	SHA Framework	Indicates the ICHA classification under SHA2011 methodology. The classification name is displayed in blue text.
–	Programme (not SHA)	Indicates classifications added by WHO for HAPT, but which do not originate from ICHA under SHA2011 methodology. The classification name is displayed in black text.
–	User defined	Indicates the classifications added by users for a study. The classification name is displayed in orange text.

–: no equivalent button

4.10.2.1 Adding a new classification

To add a new classification that is not defined in the HAPT classification list, follow these steps.

1. In the Classifications submodule click **ADD NEW CLASSIFICATION**.

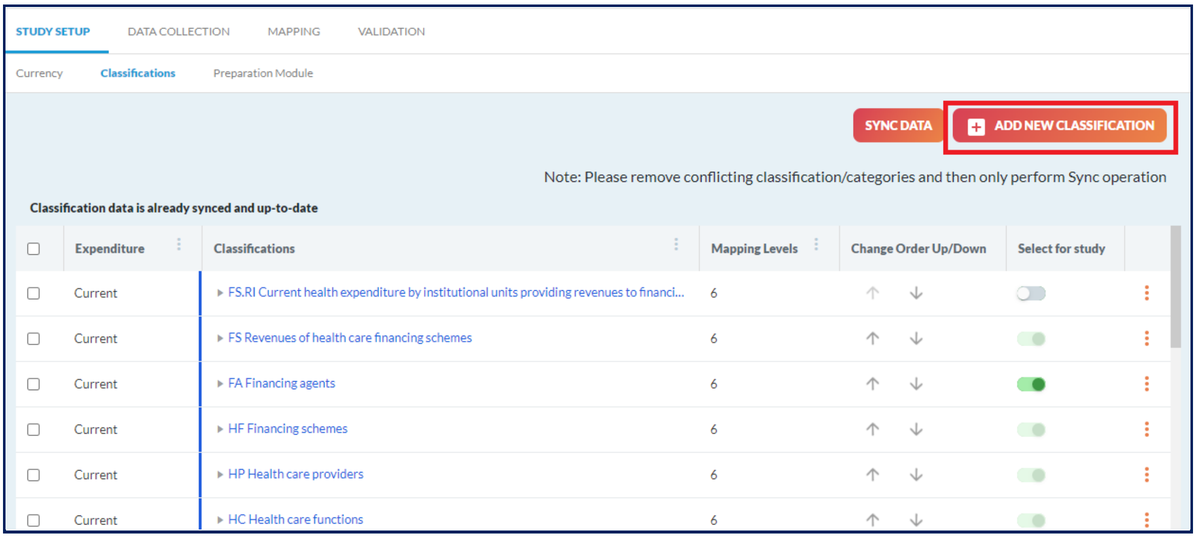


Fig. 4.58. Adding a new classification

The ***Add new classification*** form is displayed.

2. Enter the classification details in their respective fields, and then click **ADD**.

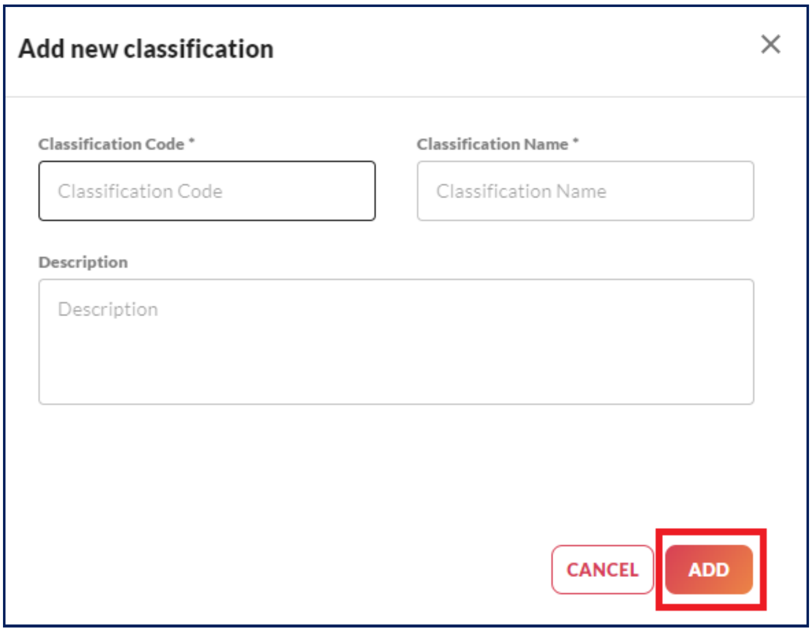


Fig. 4.59. The *Add new classification* form

Table 4.9. Description of fields in the *Classification* form

Field name	Description
Classification Code	You must a classification code.
Classification Name	You must add a classification name.
Description	You must add details, description and purpose for the classification.

The new classification is added successfully.

4.10.2.2 Sync data

Any classifications or categories added by a TL at setup level can be made available at study level by using the sync data feature. It manually syncs the published data coming from setup to the study at any time. Upon selecting to sync data, the new classifications and categories added by TL are reflected in the current study.

To sync data, click **SYNC DATA**. Newly added classifications and categories will be available at the study level once the operation has completed.

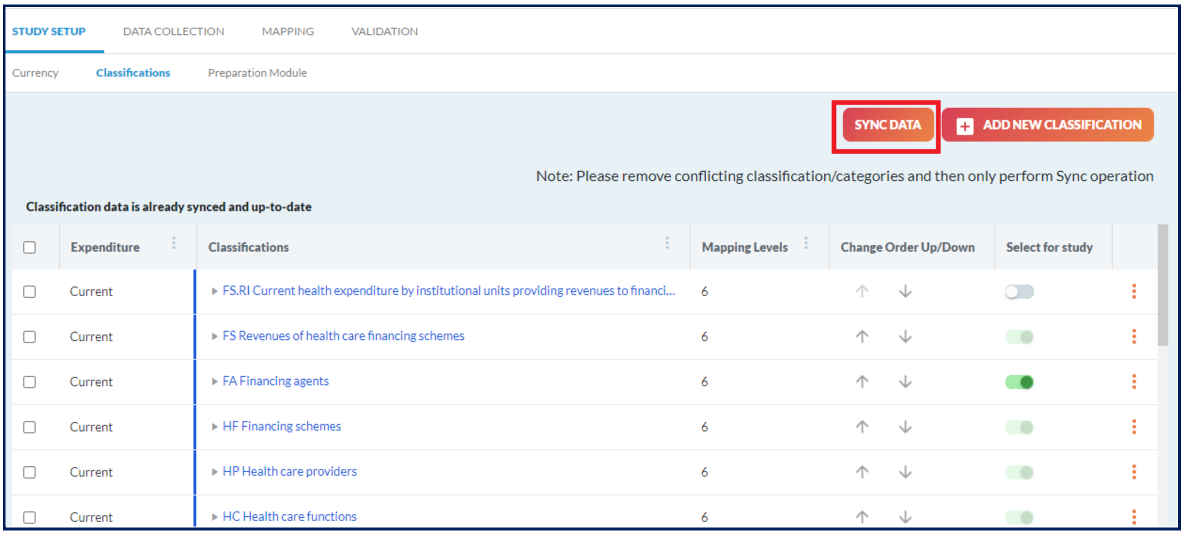


Fig. 4.60. Selecting the *Sync data* screen

If the classification list is not updated, you will see a notification: “Please sync classification data to get updated values”.

A notification is shown when a sync operation has started and when it has completed, assuming the new classification or classification category is added successfully.

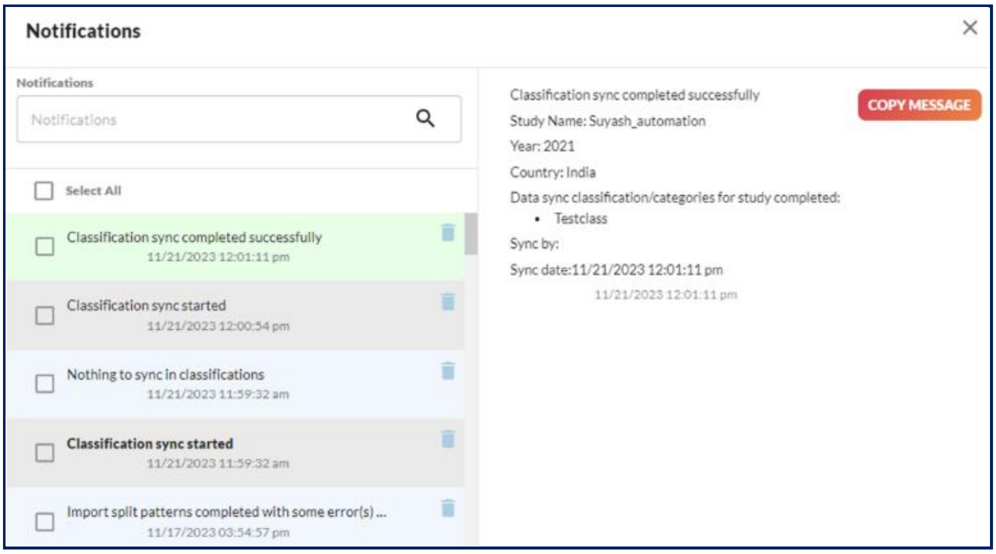


Fig. 4.61. Sync data notification

4.10.2.3 Exporting a classification

A classification can be saved on your system in `.xlsx` file format by using the export feature. The exported classification can be used again for importing data in HAPT. You can export many classifications in one file. To export a single classification, follow these steps.

1. Click the ellipsis (⋮) corresponding to the classification that you want to export.
2. Click **Export**.

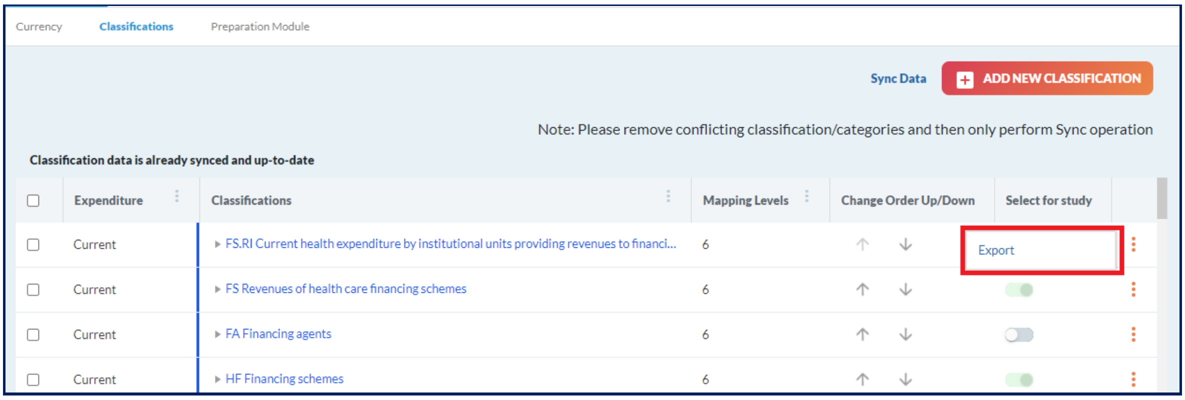


Fig. 4.62. Exporting a classification

The ***Export*** dialog box is displayed.

3. Enter the required name for the exported file in the "Export As" box, add watermark text if you want to, and then click **EXPORT.**

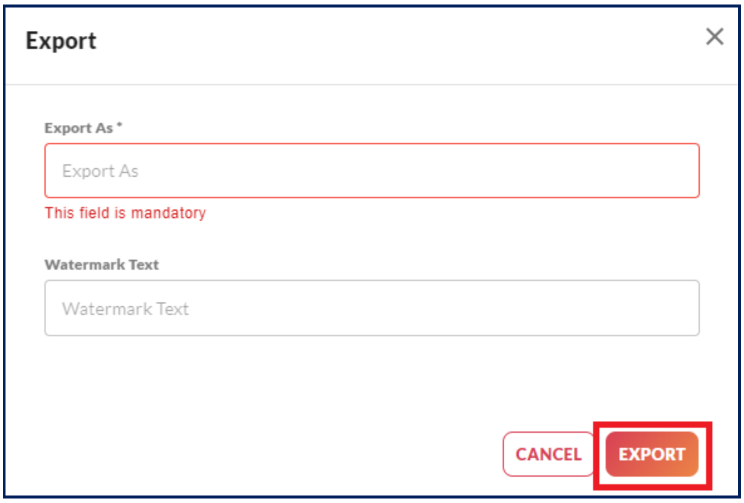


Fig. 4.63. Exporting a classification as a file

The classification is downloaded as a `.xlsx` file, in the default download location of the system.

To export several classifications, follow these steps.

1. Select the classifications to be exported by clicking on the check boxes on the left of the grid (☐). You can manually select each classification or can select all by selecting the topmost check box in the grid.

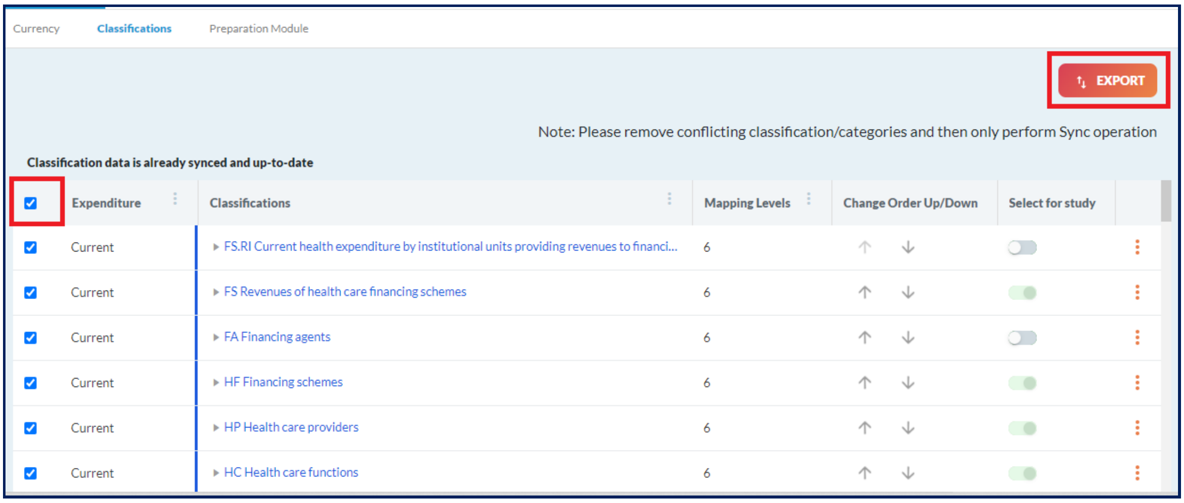


Fig. 4.64. Exporting a classification as a file

2. Click **EXPORT**.

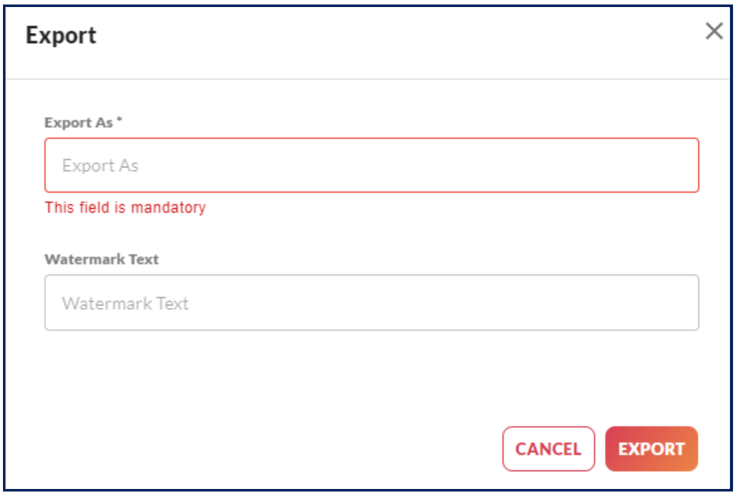


Fig. 4.65. Exporting selected classifications as a file

3. Enter the required name for the file in the “Export As” field, and then click **EXPORT**.

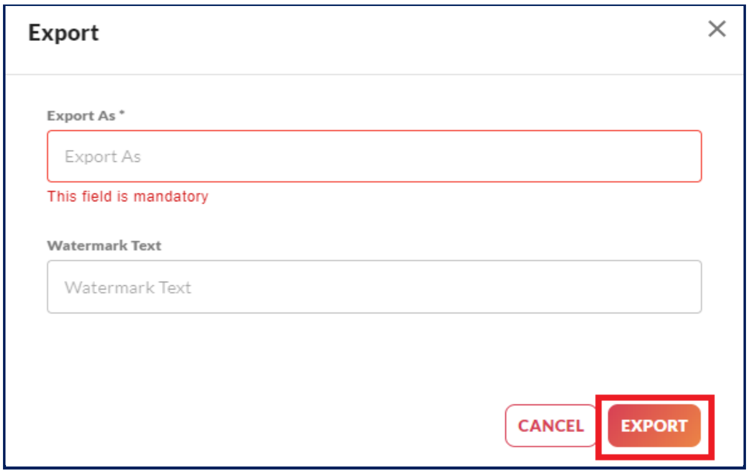


Fig. 4.66. The *Export* form

The classification is downloaded as a `.xlsx` file, in the default download location of the system.

4.10.2.4 Adding a subcategory for current expenditure

Due to the unique health financing landscape in each country, the HA team has the option to adapt the standard ICHA categories list by creating country-specific subcategories. Subcategories can be added only to the lowest level of a standard category to ensure mutually exclusive and collectively exhaustive criteria for the classifications, so that every health expenditure can be captured only by one code. New categories cannot be added at the same digit level of an existing SHA 2011 classification category. The exception being “Reporting item” classifications (i.e. HC.RI for Health care functions reporting items) and classifications specific to the related account (i.e. HCR for Health care functions related items, FSR for Revenues of schemes related items, etc.). In that case, it is possible to add new categories at the same level of existing SHA categories (e.g. you can add category – such as HC.RI.3, HC.RI.99).

If a classification is not a reporting item, then you can create custom categories at the same level as “programme (not SHA)” categories, but only at a level below an existing SHA 2011 category.

If there are both SHA and programme categories at the same level under the same parent, it is not possible for a TL to add a custom category. For example, if XXX.1 is a SHA category, and its children/subcategories are XXX.1.1 (SHA), XXX.1.2 (SHA) and XX.1.3 (programme), a TL will not be able to add XXX.1.4, they can only add custom categories like XXX.1.1.1, XXX.1.2.1 and XXX.1.3.1

It is also not possible to add a custom category under n.e.c. (not elsewhere classified) categories.

The maximum number of levels of categories is six. That is, six-digit codes are allowed, but not seven-digit. To add a classification category, follow these steps.

1. Click the arrow (▶) corresponding to the classification under which you want to add a new category.
2. Click the ellipsis (⋮) corresponding to the classification.
3. Click **Add new classification category**.

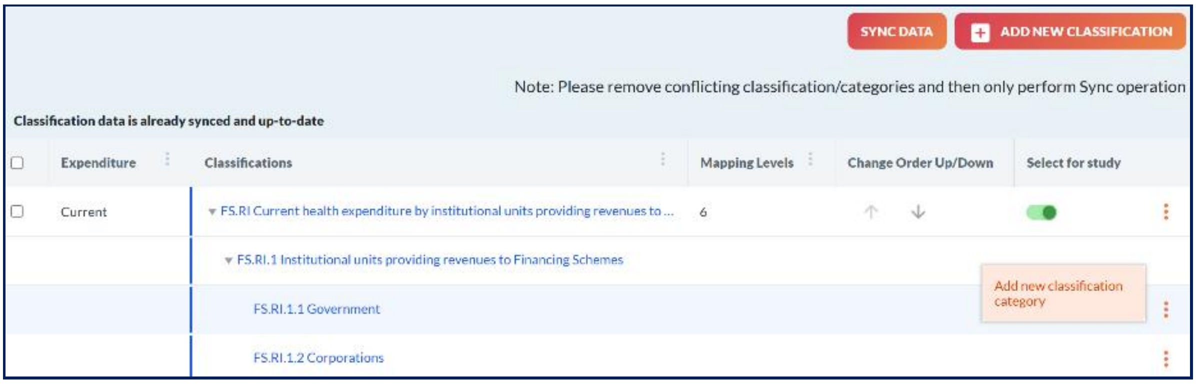


Fig. 4.67. Adding a new category

The ***Add new classification category*** screen is displayed.

1. Enter the details in their respective fields, and then click **ADD**.

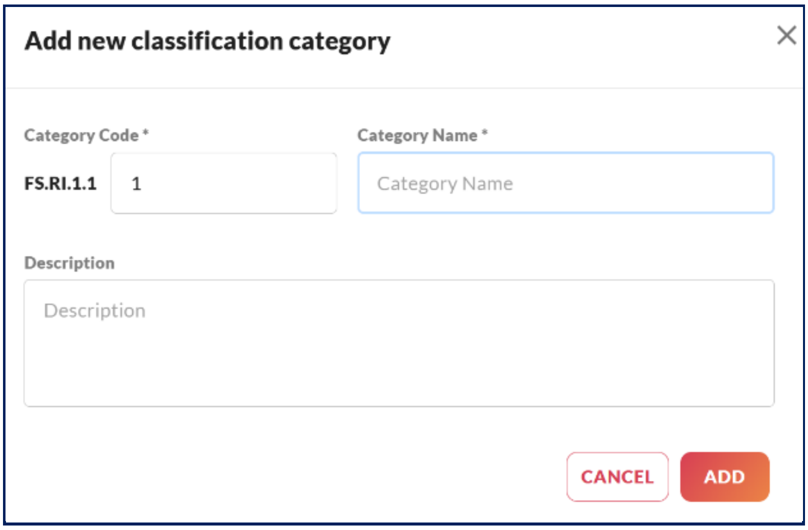


Fig. 4.68. The form for adding a new classification category

The new classification is added successfully.

Table 4.10. Description of fields on the *Adding new classification category* form

Field name	Description
Category Code	You must add a classification category code.
Category Name	You must add a category name.
Description	You must add a category description.

After you add a category, HAPT automatically creates an n.e.c. category at the same digit level.

On success, you will be asked for a confirmation to refresh the page to view updated details of the newly added category.

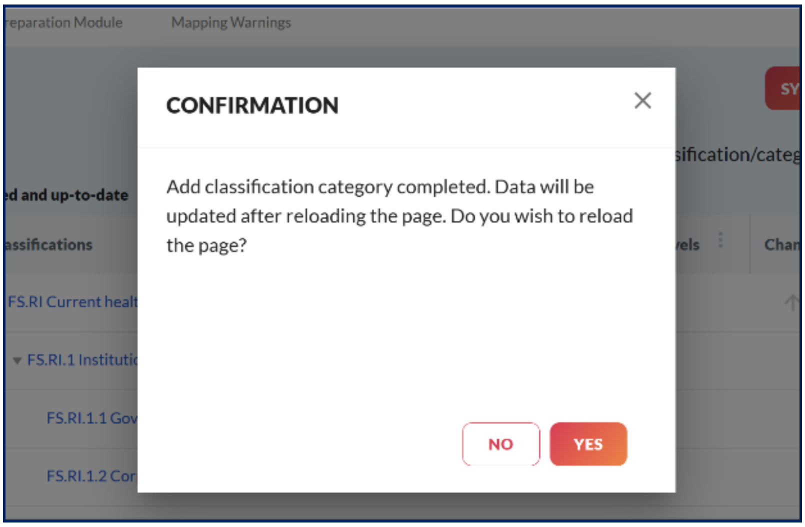


Fig. 4.69. Adding a new classification category: success

A notification is shown when a category is added successfully.

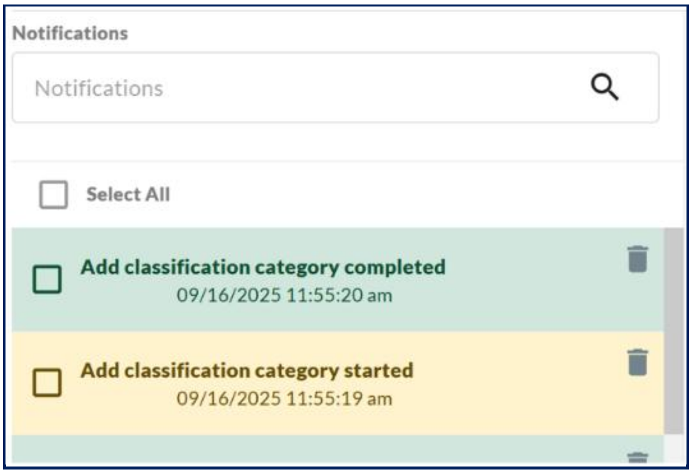


Fig. 4.70. Notification for adding a new classification category

4.10.2.5 Adding a new classification for related and capital expenditure

To add a new classification under related and capital expenditure, follow these steps.

1. Click the ellipsis (⋮) corresponding to the related classification.
2. Click **ADD NEW CLASSIFICATION**.

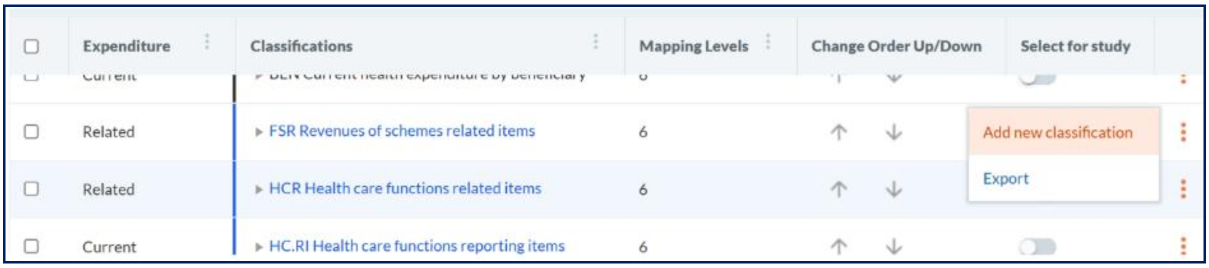


Fig. 4.71. Adding a new classification

The *Add new sub-classification under classification* screen is displayed.

3. Select the classifications of schemes related items, and then click **ADD**.

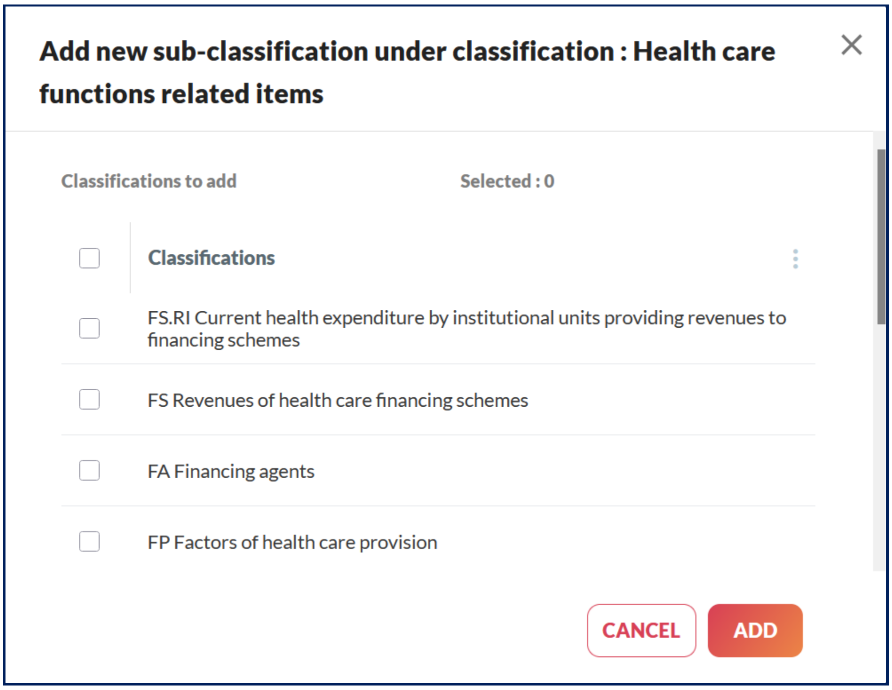


Fig. 4.72. Classification for related account

The new classification is added successfully.

4.10.2.6 Editing a classification category

The HAPT predefined classification categories cannot be edited. All user-added classifications can be edited. To edit a category, follow these steps.

1. Click the ellipsis (⋮) corresponding to the category.
2. Click **Edit**.

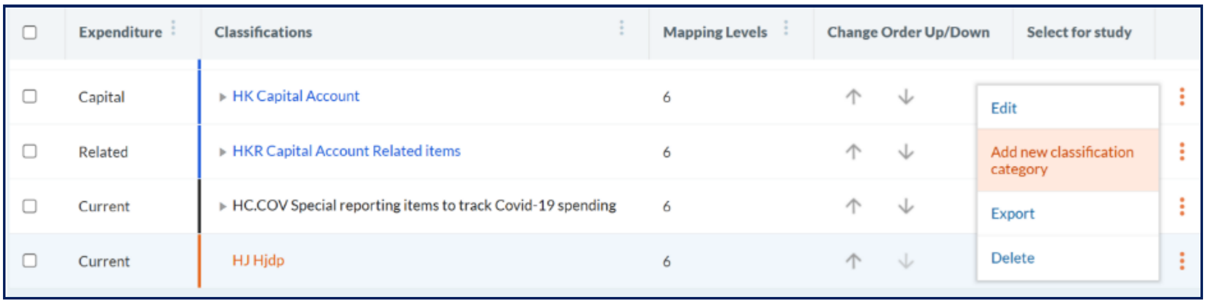


Fig. 4.73. Editing a classification category

The ***Edit classification category*** screen is displayed.

3. Enter the details of the modified category in their respective fields, and then click **SAVE**.

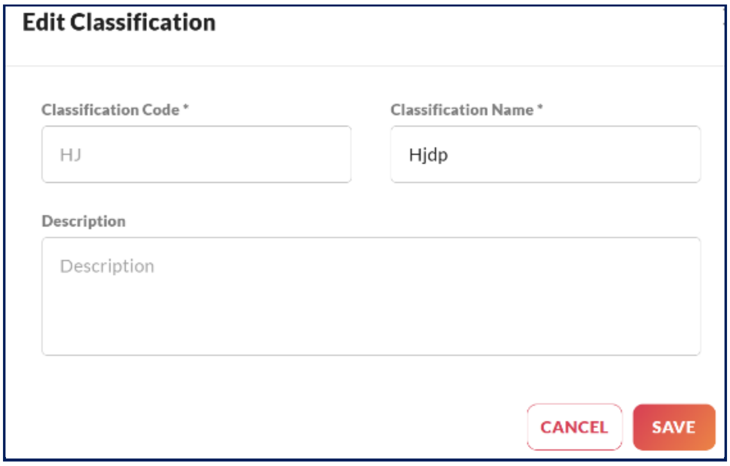


Fig. 4.74. The form for editing a classification category

Table 4.11. Description of fields on the *Edit classification category* form

Field name	Description
Category Code	You must adda category code.
Category Name	You must add a category label.
Description	You must add category details and information.

4.10.2.7 Deleting user-defined classifications and categories

4.10.2.7.1 Deleting a single user-defined classification or classification category

Delete a single user-defined classification or classification category by using the delete feature; follow these steps.

1. Click the ellipsis (⋮) corresponding to the classification or category.

2. Click **Delete**.

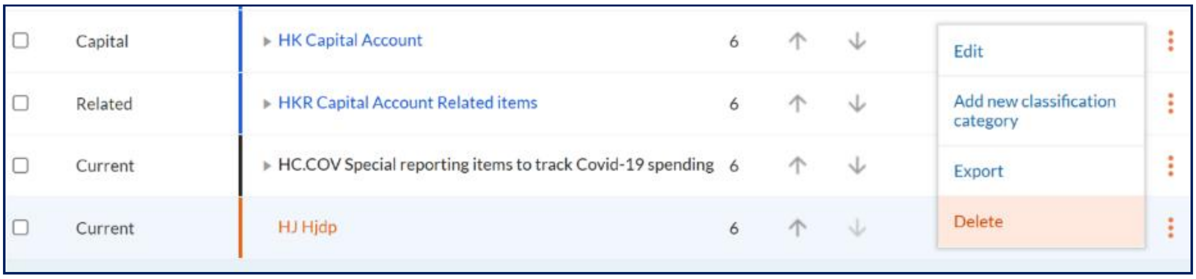


Fig. 4.75. Deleting a user-defined classification or classification category

A notification is displayed.

1. Click **YES**.

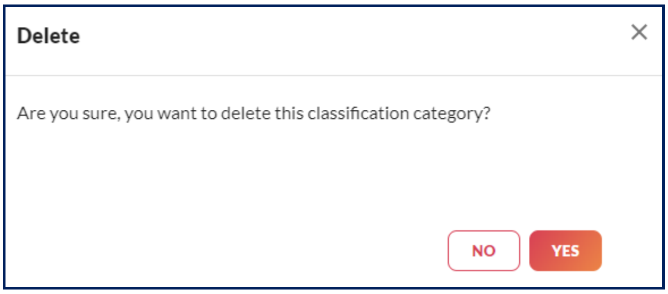


Fig. 4.76. Notification for deleting a user-defined classification or classification category

4.10.2.7.2 Deleting several user-defined categories

Several user-defined categories belonging to one classification can be deleted at once by checking the check boxes of the user-defined categories; follow these steps.

1. Select the categories to be deleted from a classification by clicking on the check boxes on the left of the categories. You can manually select each classification category, or select all by selecting their parent-level classification category.

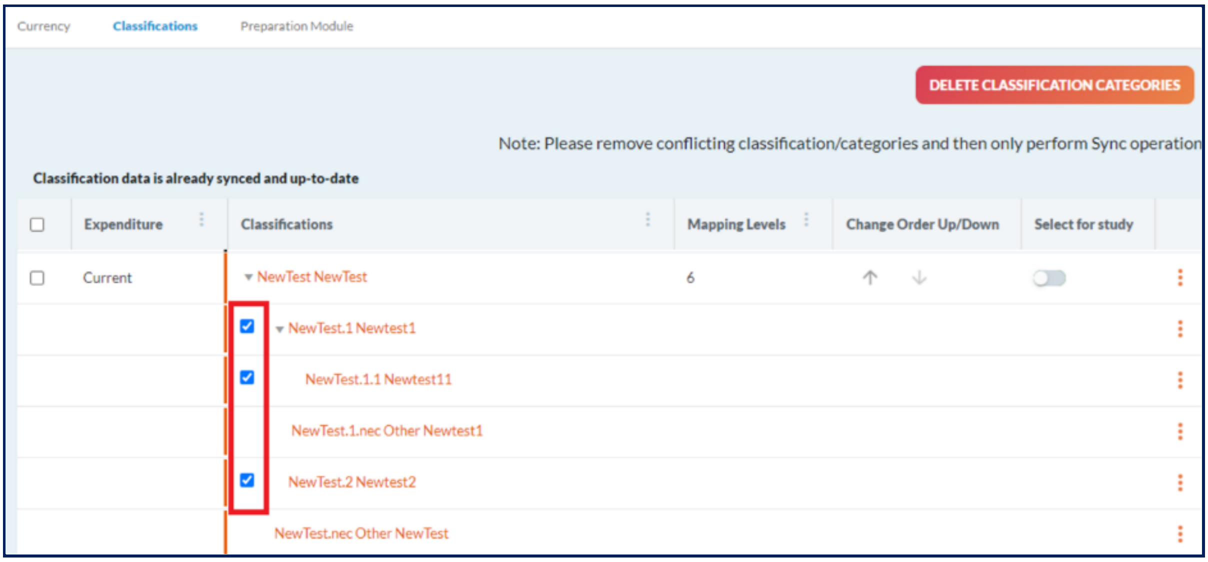


Fig. 4.77. Selecting multiple user-defined classification categories

2. Click **DELETE CLASSIFICATION CATEGORIES**.

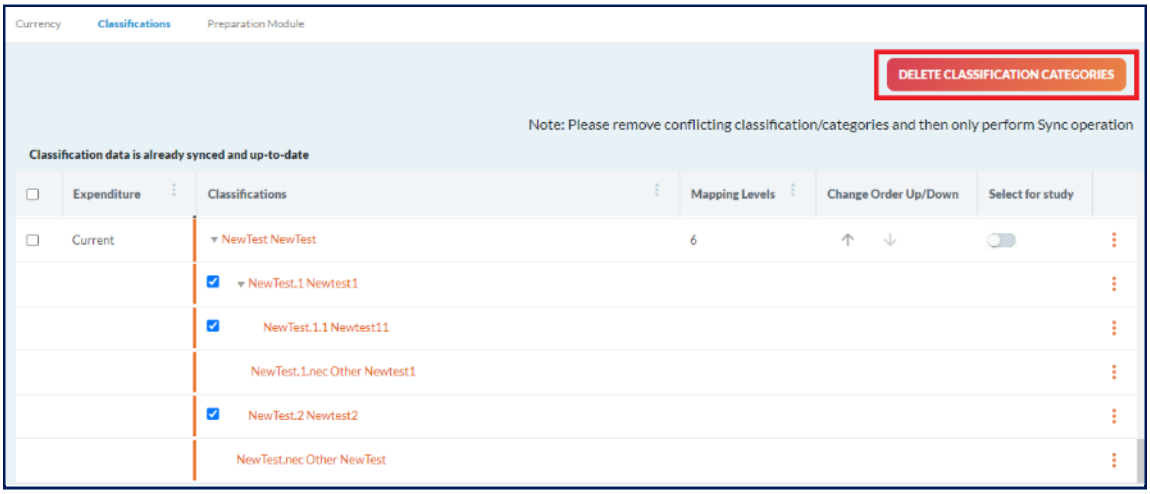


Fig. 4.78. Click DELETE CLASSIFICATION CATEGORIES

3. The resulting notification.
    a. If the mapping is not impacted, a confirmation message is displayed.

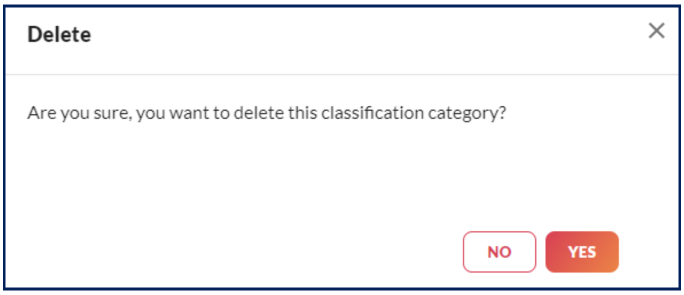


Fig. 4.79. Confirmation of deletion of classification categories

b. If the categories are mapped and mapping is impacted, the number of rows to be impacted is displayed in a confirmation message.

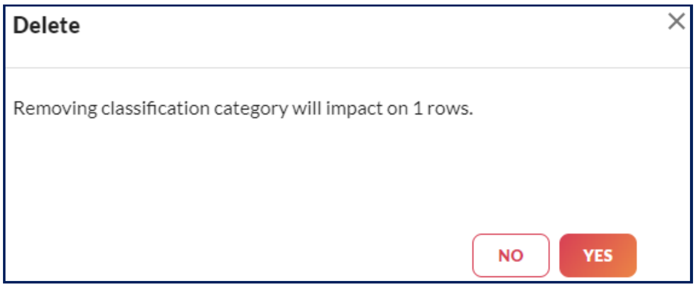


Fig. 4.80. Confirmation of deletion of classification categories in case of mapping

4. Click **YES** to delete the categories.

Note

- Selected categories must belong to the same classification. For example, you can select categories under classification ABC to delete, but cannot select categories under classification XYZ at the same time. To delete the categories of another classification, you must complete the deletion for the first classification, or deselect previously selected categories.
- If all categories defined under the classification are selected for deletion, the classification in the mapping tree will be unmapped.
- If a few categories defined under the classification are selected for deletion, the classification category in the mapping tree will be mapped to the n.e.c. category.

4.10.2.8 Importing a classification from Excel

Classifications can be edited in another application, for example Excel, and then imported into HAPT by the TL. To import a classification from an Excel spreadsheet, follow these steps.

1. In the **STUDY SETUP** module, in the **Classifications** submodule, click the upload icon ( ) at the top-right corner of the page.

2. Click **Import from excel** in the drop-down menu.

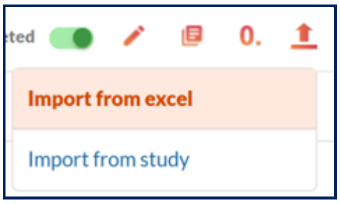


Fig. 4.81. Importing a classification from Excel

The ***Import Classification*** page is displayed.

3. To import a file, click **CHOOSE FILE**.

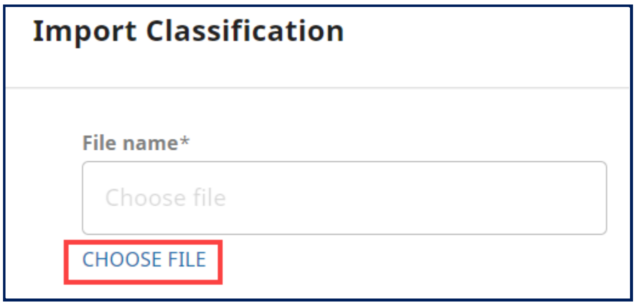


Fig. 4.82. Choosing a file to Import

4. Select the required Excel file using the file browser, and then click **IMPORT**.
5. Select the sheet needed from the ***Excel sheet*** drop-down menu.

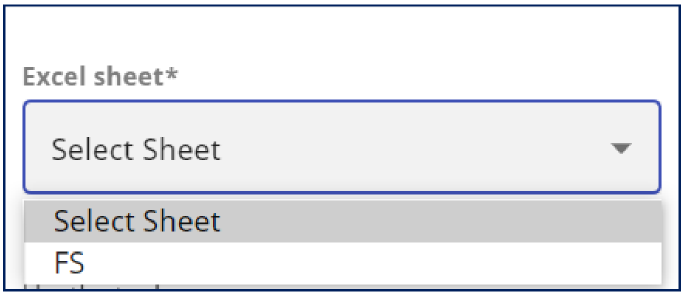


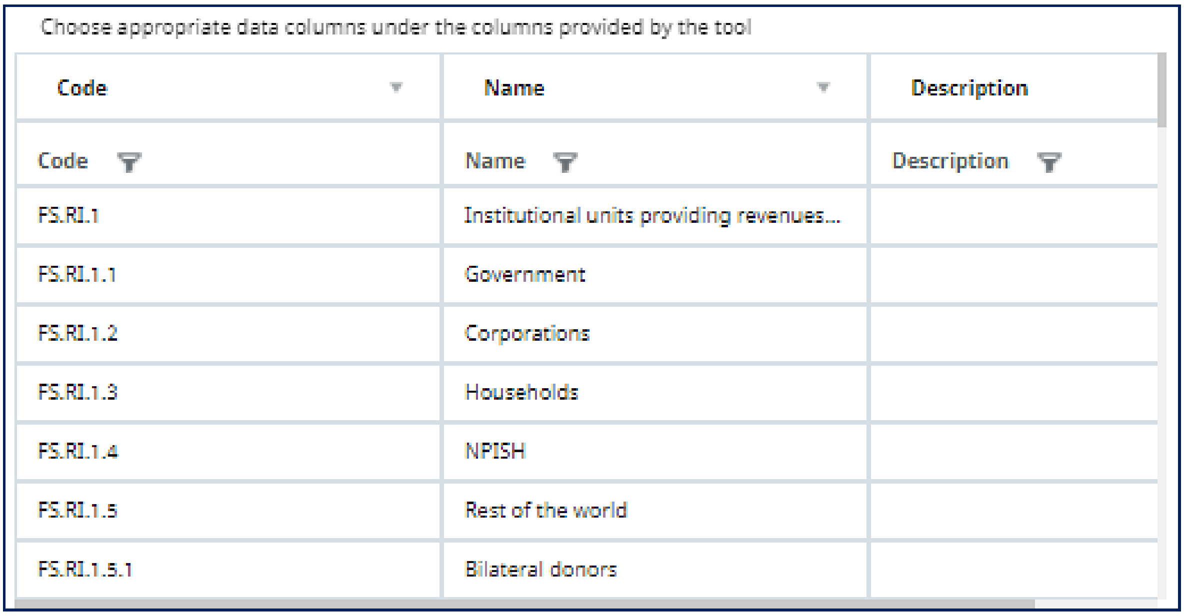
Fig. 4.83. Selecting a sheet from an Excel file

The data columns are populated.

Note

- If you have more than one sheet in your selected Excel file, select one sheet to be imported.

- Each classification must be imported separately; for that, you need to have one classification per sheet.
- If there are multiple classifications in one sheet, categories will be imported for both selected and deselected classifications. If the classification does not match the selected/deselected classification, it will not be imported.


Choose appropriate data columns under the columns provided by the tool

Code	Name	Description
Code	Name	Description
FS.RI.1	Institutional units providing revenues...	
FS.RI.1.1	Government	
FS.RI.1.2	Corporations	
FS.RI.1.3	Households	
FS.RI.1.4	NPISH	
FS.RI.1.5	Rest of the world	
FS.RI.1.5.1	Bilateral donors	

Fig. 4.84. Populated data columns

6. Select the classification from the ***Classification to import*** drop-down list. You **must** select the classification to import. It helps to bind the columns in the tool to the classifications in the imported Excel sheet.

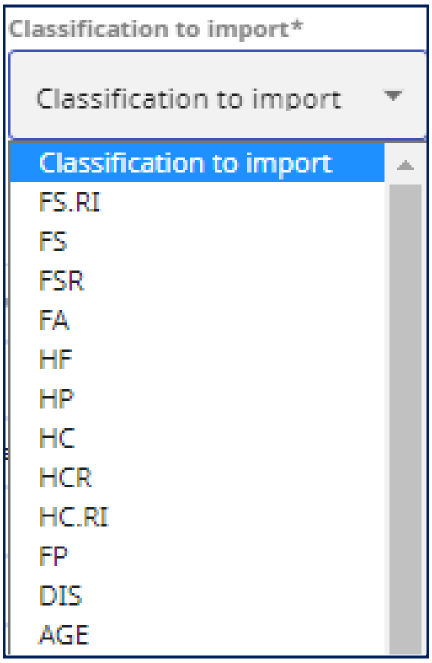
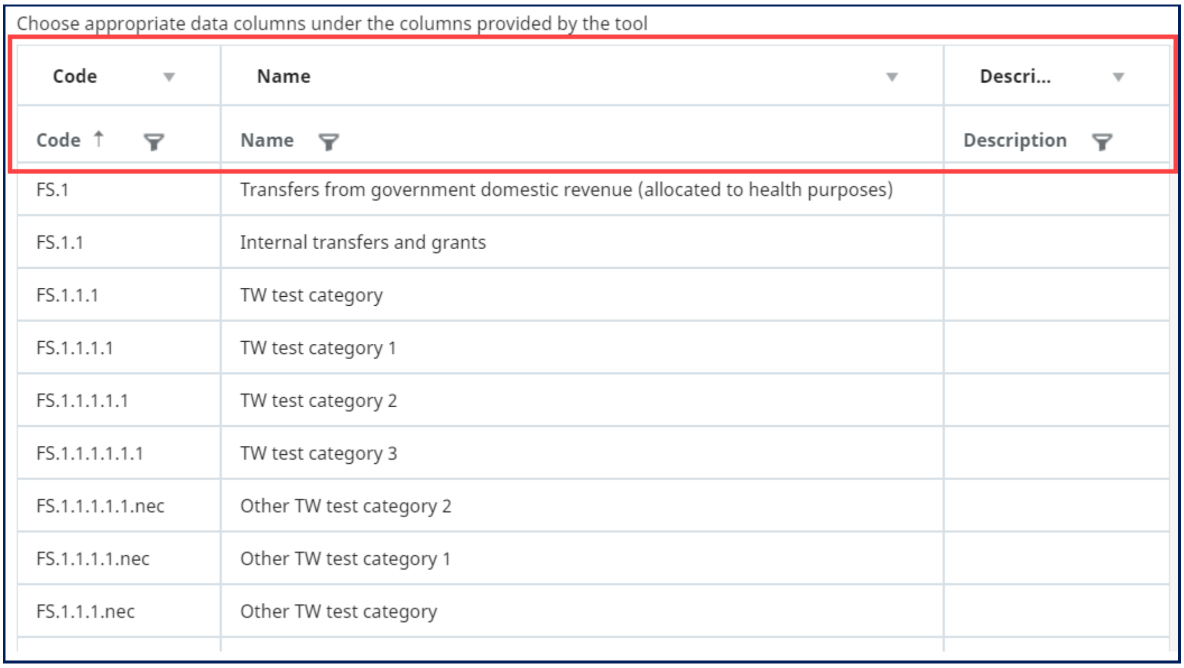


Fig. 4.85. Selecting the classification to import

The first row shows the headings provided by HAPT, and the second row is the headings used in the Excel sheet.


Choose appropriate data columns under the columns provided by the tool

Code	Name	Descri...
Code	Name	Description
FS.1	Transfers from government domestic revenue (allocated to health purposes)	
FS.1.1	Internal transfers and grants	
FS.1.1.1	TW test category	
FS.1.1.1.1	TW test category 1	
FS.1.1.1.1.1	TW test category 2	
FS.1.1.1.1.1.1	TW test category 3	
FS.1.1.1.1.1.nec	Other TW test category 2	
FS.1.1.1.1.nec	Other TW test category 1	
FS.1.1.1.nec	Other TW test category	

Fig. 4.86. Data columns

7. For the tool to understand how data should be interpreted, the Excel file's columns should match the right-side tool columns' headings. For that, click on the drop-down arrow against the column and select an appropriate heading. The data will be bound (linked).

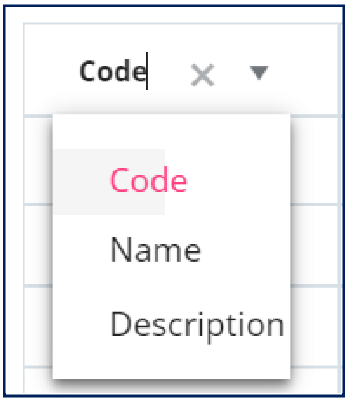


Fig. 4.87. Matching to a data column

8. Repeat step 7 for all columns.

When all columns are bound to their respective fields, a check mark appears in the right-hand grid under the “Binding” column, and the colour of mandatory fields changes from red to black.

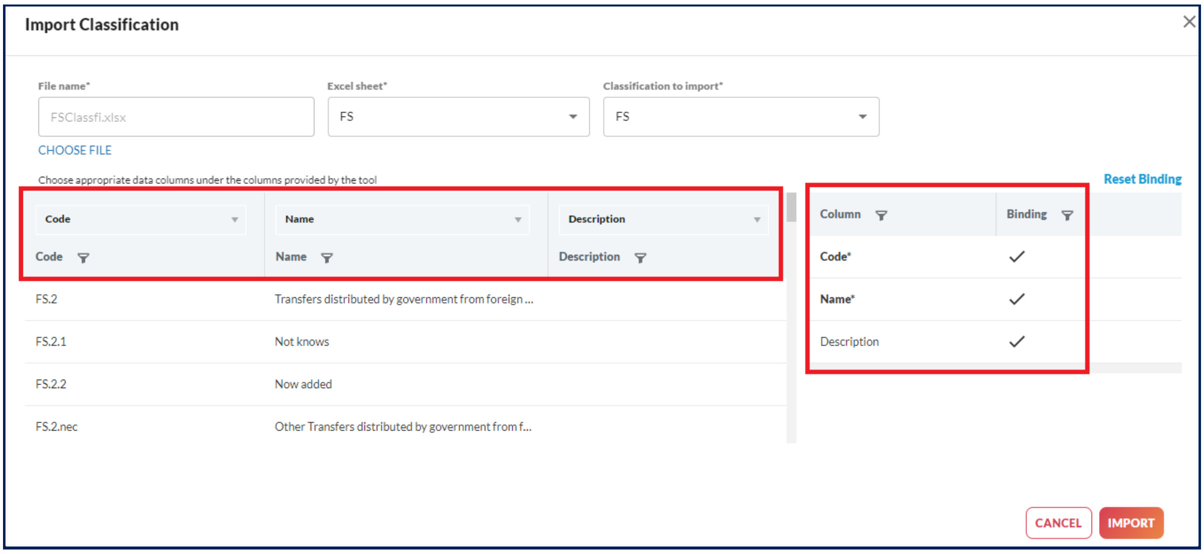


Fig. 4.88. Binding columns with those imported from Excel

9. Once binding is done, click **IMPORT.**

Fig. 4.89. Importing a classification from Excel

Note

- If the headers in the Excel spreadsheet match exactly with the ones provided in the tool (for the selected language), the columns will automatically bind. You can manually bind the columns, if the headers do not match.
- The "Code" column should have codes with formats like "Classification.code".
- Classification category format: The format for the code of categories can include – HP.1.1 or 1.1 or.1.1. Classification items, when the code contains the code abbreviation or not, can be imported – for example, HP.1.1 and 1.1 and.1.1. This also works for HP.nec, nec, .nec.

FS	HF	HP	HC	HK	FA
FS.1.1	HF.1.1.1	0.6	7.1.1	2.1	1.1.1
FS.1.4	HF.1.1.nec	0.9	7.1.2	2.2	1.1.2
FS.2	HF.1.1.2	.nec	9	nec	1.1.3
FS.3.4	HF.1.2.2	.8.3	7.1.1	2.1	1.1.4
FS.4.2	HF.2.1.1.1	.8.9	7.1.3	2.2	1.1.nec
FS.5.1	HF.2.1.1.2	.7.2	6.5.3	nec	1.2
FS.6.nec	HF.2.1.nec	.5.9	6.2.2	2.1	1.9
FS.7.1.2	HF.1.nec	.4.1	6.1.nec	2.2	1.3.1
7.2.1.2	2.2.1	3.1.3	5.2.9	nec	1.3.2
7.2.2	2.2.2	3.1.nec	4.1	2.1	nec
7.2.nec	2.2.nec	3.3	3.nec	2.2	4
7.3	2.3.1	3.nec	2.2	nec	5
7.2.nec	3.2.1	7.2	7.1.1	2.1	6.1
1.1	1.1.1	6	7.1.1	2.1	1.1.1
1.4	1.1.nec	9	7.1.2	2.2	1.1.2
2	1.1.2	nec	9	nec	1.1.3
3.4	1.2.2	8.3	7.1.1	2.1	1.1.4
4.2	2.1.1.1	8.9	7.1.3	2.2	1.1.nec
5.1	2.1.1.2	7.2	6.5.3	nec	1.2
6.nec	2.1.nec	5.9	6.2.2	2.1	1.9

Fig. 4.90. Sample of classification categories in Excel

- Mandatory fields are highlighted in red when columns are not bound to fields. Mandatory field names will change from red to black when columns are bound to their respective fields.

Fig. 4.91 shows a sample Excel template. It has three columns: "Code", "Name" (mandatory) and "Description" (optional).

A	B	C
Code	Name	Description
FS.1.4.1	Third level first item	a
FS.1.4.2	Third level second item	b
FS.1.4.3	Third level third item	c
FS.1.4.4	Third level fourth item	d
FS.1.4.5	Third level fifth item	e
FS.1.4.nec	Other transfers from government domestic revenue	f
FS.1.5	Second level item	g
FS.1.5.1	Third- First level	h
FS.1.5.2	Third- Second level	i
FS.1.5.3	Third- Third level	j
FS.1.5.4	Third- Fourth level	k
FS.1.5.nec	Other Second level item	l
FS.1.4.5	Test 1	Test 1
FS.1.4.6	Test 2	Test 2
FS.1.4.7	Test 3	Test 3
FS.1.4.8	Test 4	Test 4
FS.1.4.9	Test 5	Test 5
FS.1.4.10	Test 6	Test 6
FS.1.4.11	Test 7	Test 7
FS.1.4.12	Test 8	Test 8
FS.1.4.13	Test 9	Test 9
FS.1.4.14	Test 10	Test 10
FS.1.4.15	Test 11	Test 11

Fig. 4.91. Sample of an imported classification Excel file

4.10.2.9 Importing classification from an existing HAPT study

One or several classifications available in an existing study can be imported to another by the TL. All details, such as user-created new categories with codes and names, will be imported to the current study. To import a classification, follow these steps.

1. On the **STUDY SETUP** module. In the **Classifications** submodule, click the import icon ( ) at the top-right corner of the page.
2. Click **Import from study**.

The *Import Classifications* form is displayed.

3. Select the study from which you want to import classifications.
4. Select the classifications to be imported and then click **IMPORT**.

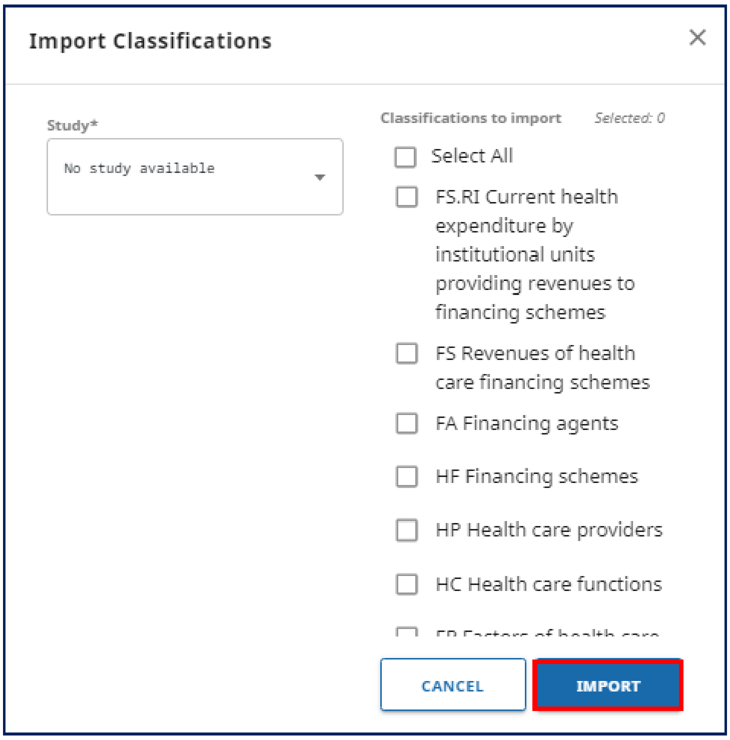


Fig. 4.92. Importing classification from an existing study

Selected classifications are imported into the study and a success notification is shown.

4.10.3 **Preparation** submodule

The **Preparation** submodule helps users prepare valid and important information about the financing flows in the country and better understand the health care structure by answering basic policy questions related to the study objectives. The questions are defined in the tool by default. It also generates a data-flow diagram to depict the financial flows for the health accounts study. It also helps assess and document the plan for the study.

The **Preparation** submodule can be managed by the TL only if a study is available in the application. Refer to Adding a study and Opening an existing study.

4.10.3.1 Policy questions

The **Preparation** submodule allows you to answer predefined-by-the tool questions for a study but the answers can be saved for use in future studies. To answer the policy questions, follow these steps.

1. Under **STUDY SETUP**, click **Preparation Module**.

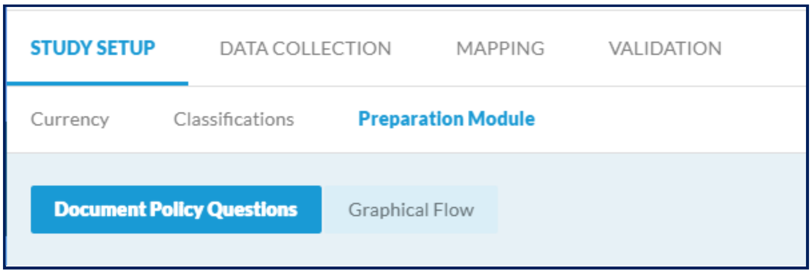


Fig. 4.93. The Preparation module

The Preparation module is displayed.

2. Select the **Document Policy Questions** tab.

The ***Document Policy Questions*** form is displayed.

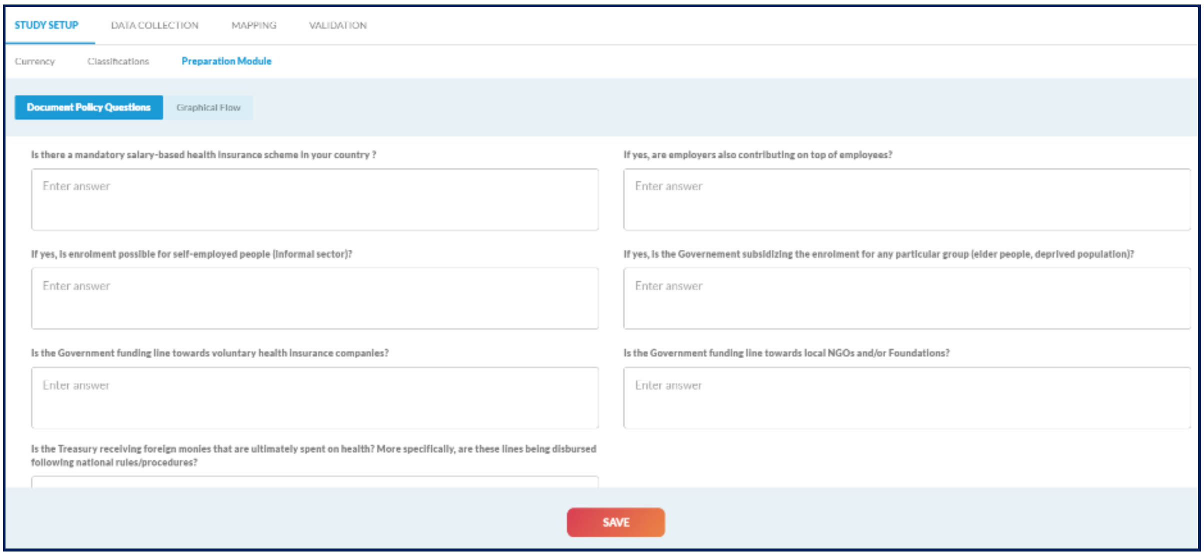


Fig. 4.94. The *Document Policy Questions* form

3. Fill in the answers for the questions in their respective fields, and then click **SAVE**.

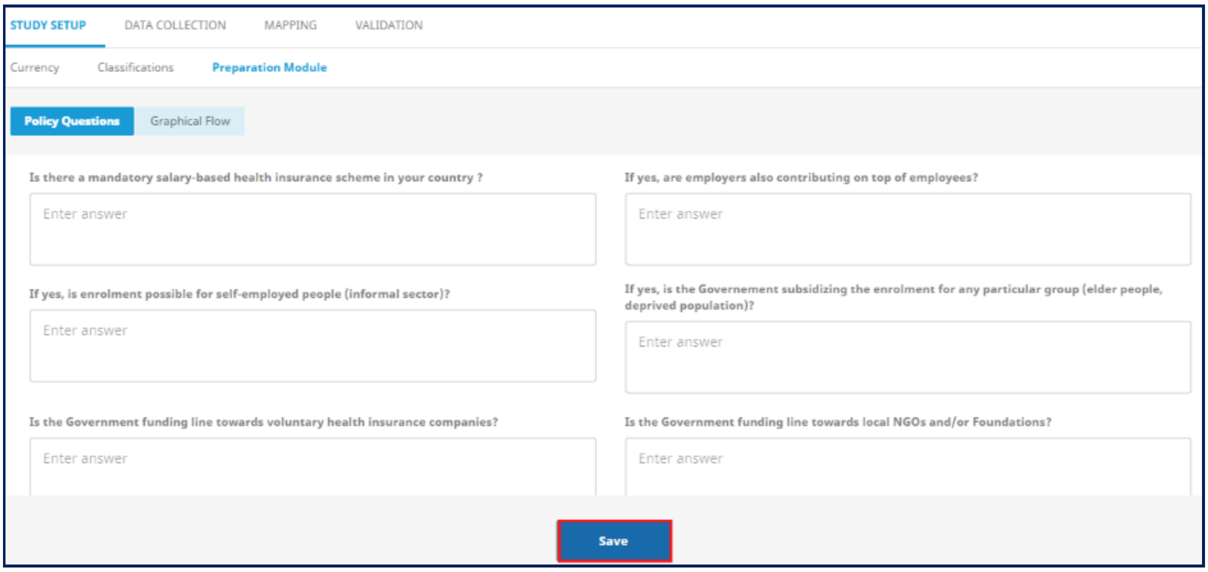


Fig. 4.95. Answering questions in the *Document Policy Questions* form

The data are saved successfully.

4.10.3.2 Depicting data graphically

Illustrating data graphically shows the financial flow across the various parties that contribute to health expenditure, from financing source to health provider and health function. The graph is represented as a flow diagram.

The flow diagram can be attached to the tool as a document. The file formats supported are: `.jpg`, `.jpeg`, `.png`, `.gif`, `.xlsx`, `.xls`, `.csv`, `.ppt`, `.pptx`, `.doc`, `.docx` and `.pdf`.

You can create, edit or delete a graphical financial flow diagram.

4.10.3.3 Attaching a financing flow diagram

A financing flows diagram created outside the tool can be attached to the study as a document. This helps associate the financial flow of that study with the same flow during mapping. To attach a flow diagram, follow these steps.

1. Under **Preparation** submodule, click the **Graphical Flow** tab.

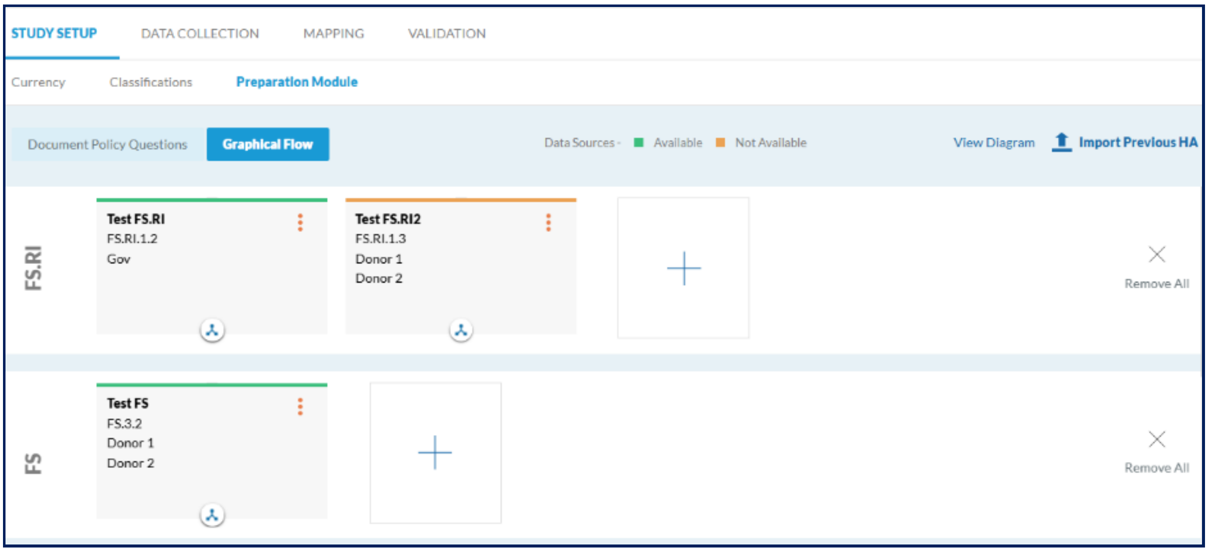


Fig. 4.96. The *Graphical Flow* form

The ***Graphical Flow*** form is displayed.

2. Click **View Diagram**.

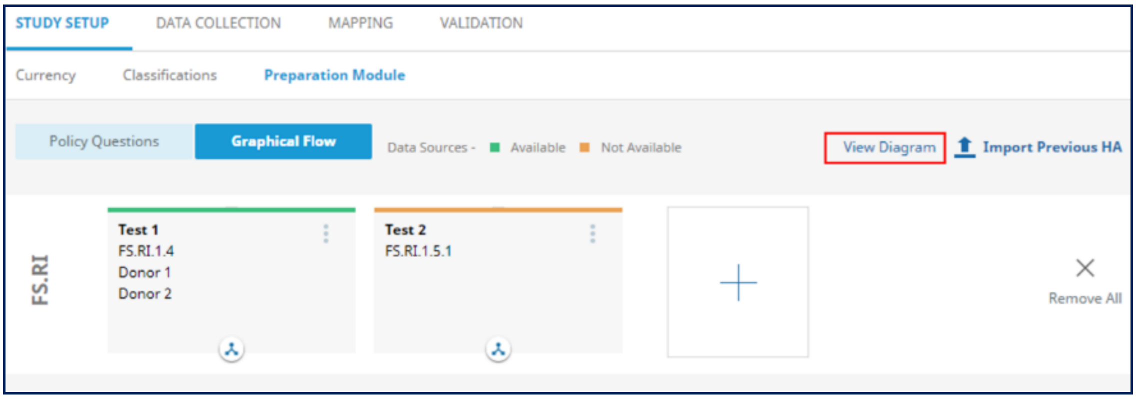


Fig. 4.97. Viewing a diagram in the *Graphical Flow* form

The *View Diagram* drop-down menu is displayed.

3. Click **ATTACH DIAGRAM**.

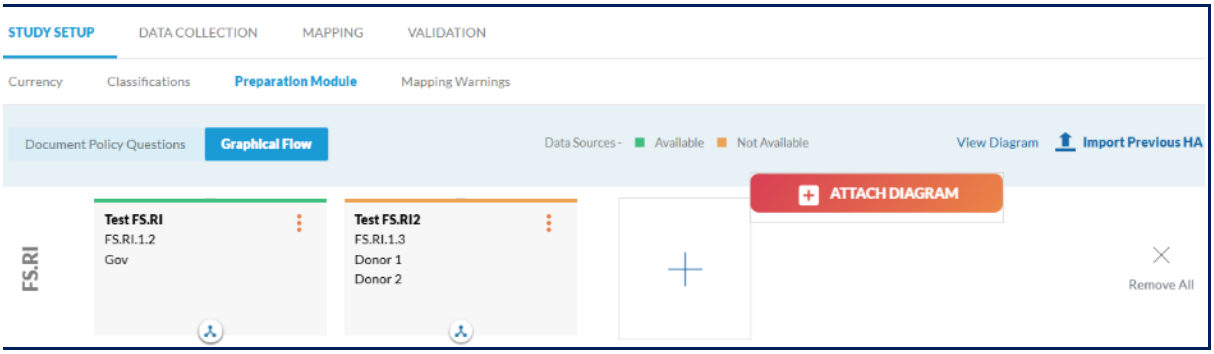


Fig. 4.98. Attaching a flow diagram document

The *Attach flow diagram* form is displayed.

4. Enter the document details in their respective fields, and then click **ADD**.

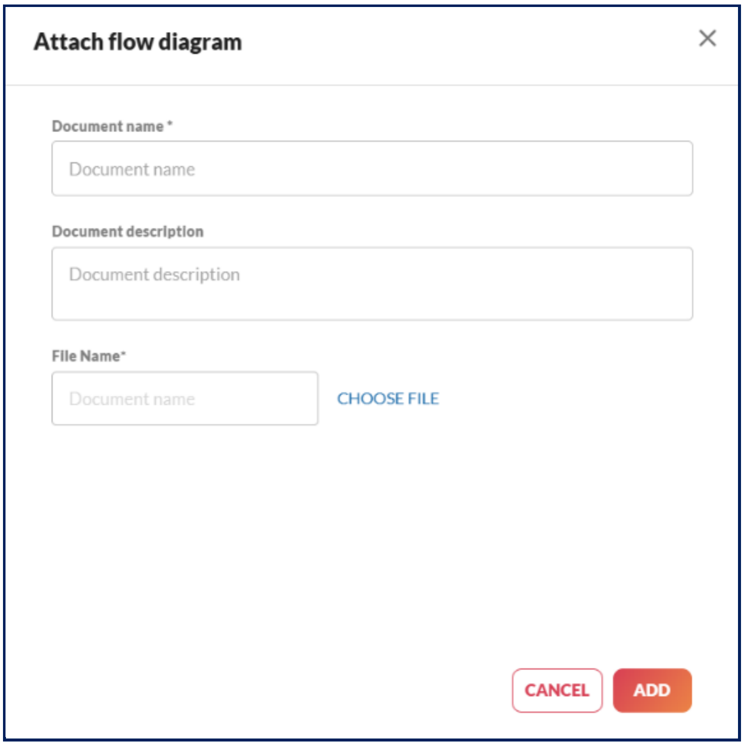


Fig. 4.99. Adding details to the *Attach flow diagram* form

The document is added successfully.

Table 4.12 describes the fields shown in the *Attach flow diagram* form.

Table 4.12. Description of the fields in the *Attach flow diagram* form

Field name	Description
Document name	Allows you to name the flow diagram document.
Document description	Allows you to add a description about the flow diagram document.
CHOOSE FILE	Allows you to select a file from your computer system. Load the file into the application by adding it as an attachment.
File Name	Displays the name of the chosen file.
CANCEL	Cancels the procedure.
ADD	Adds the above details of the flow diagram document to the tool.

4.10.3.4 Editing the flow diagram document

To edit a description in the flow diagram document, follow these steps.

1. Click the edit icon () corresponding to the flow diagram document that you want to edit.

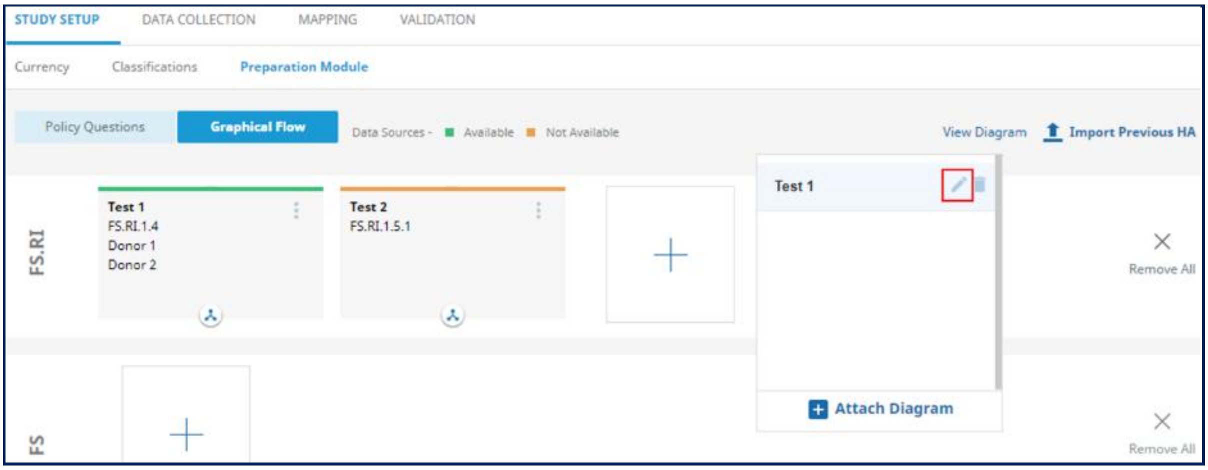


Fig. 4.100. Selecting a flow diagram document to edit

The *Edit Document* screen is displayed.

2. Edit any details in their respective fields, and then click **SAVE**.

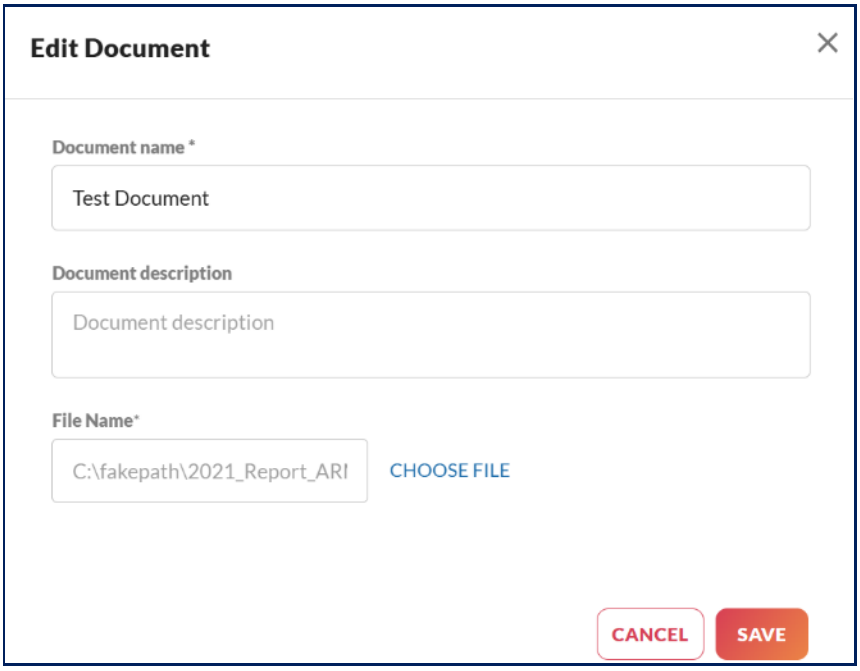


Fig. 4.101. Editing a flow diagram document

The document has been edited successfully.

4.10.3.5 Deleting a financing flow diagram

To delete a flow diagram, follow these steps.

1. Click the trash icon ( ) corresponding to the flow diagram document that you want to delete.

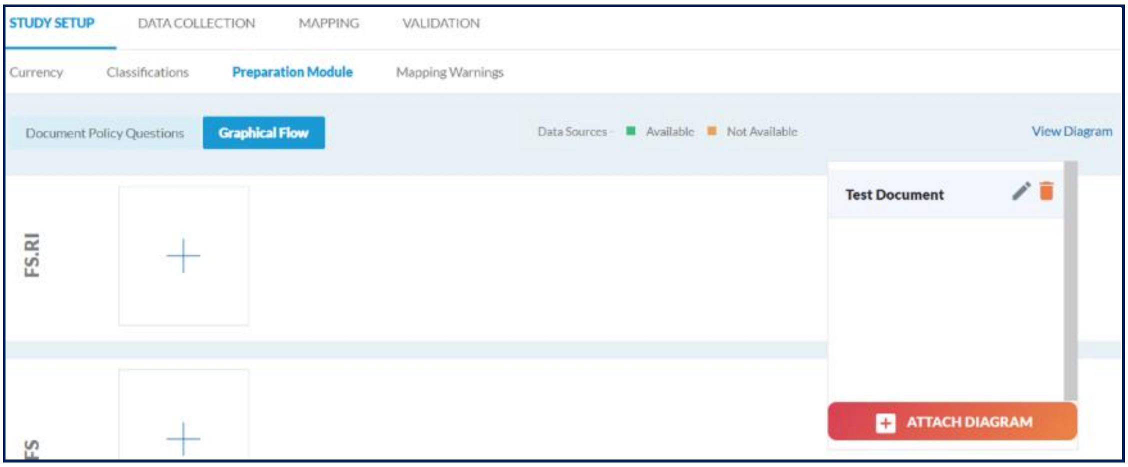


Fig. 4.102. Deleting a flow diagram document

A message asking you to confirm your action is displayed.

2. To confirm, click **YES**.

The document is deleted, and a confirmation message is displayed.

4.10.3.6 Adding a financing flow

There are various sources of financing flows, which are sorted into classifications. This feature helps you add financing flows for the corresponding classification. To add the financing flow, e.g. revenue, follow these steps.

1. Under the **Preparation** submodule, select the **Graphical Flow** tab. This brings up the ***Graphical flow*** form.

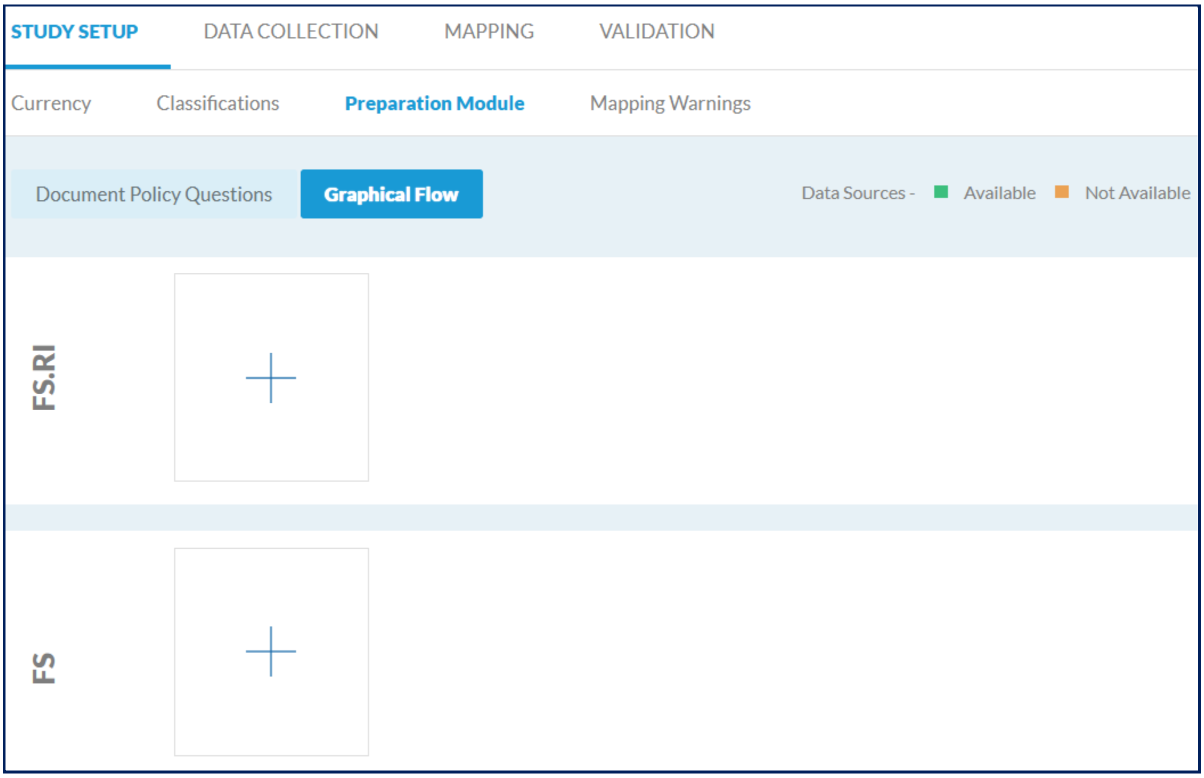


Fig. 4.103. The *Graphical Flow* form

Note

- If a financing flow block is highlighted with a green line at the top, the data source for that financing flow is available.
- If a financing flow block is highlighted with an orange line at the top, the data source for that financing flow is not available.

2. Click the add icon (+) to add a financing flow block.

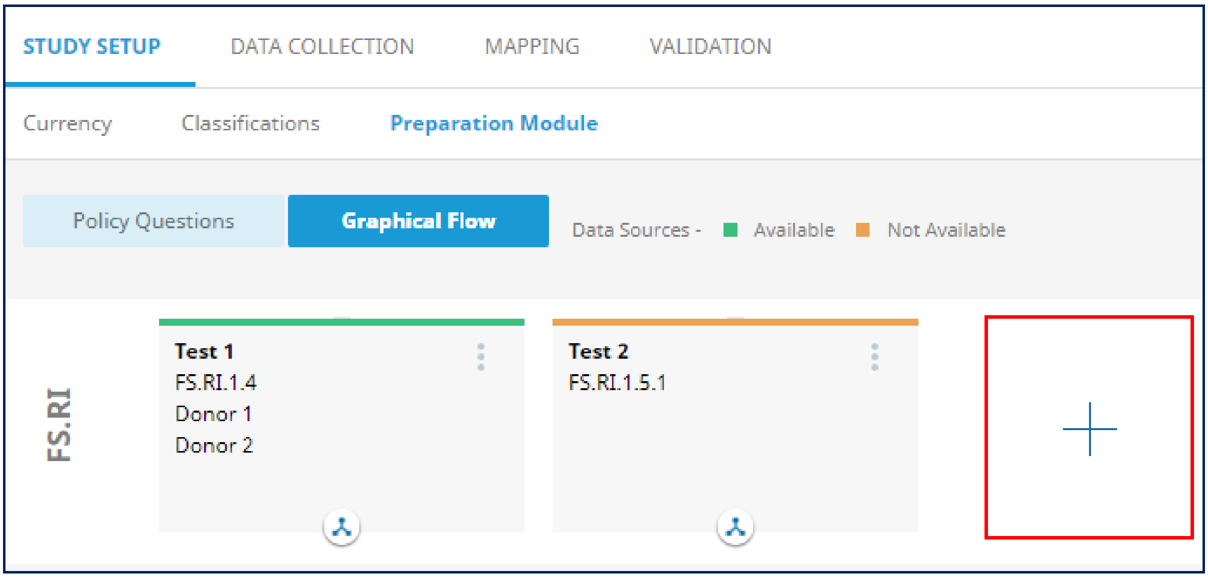


Fig. 4.104. Adding a financing flow

The *Add Unit Providing Revenues* form is displayed.

3. Enter the financing flow details in their respective fields, and then click **ADD**.

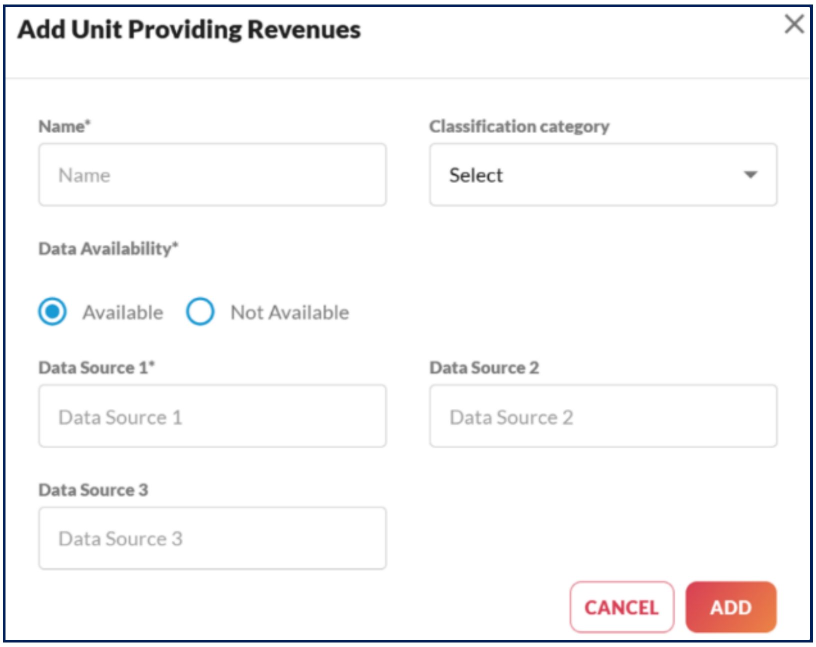


Fig. 4.105. The *Add Unit Providing Revenues* form

The financing flow block is added successfully.

Table 4.13 describes the fields shown in the *Add Unit Providing Revenues* form.

Table 4.13. Description of the fields in the *Add Unit Providing Revenues* form

Field name	Description
Name	Allows you to enter a name for the revenue.
Classification category	Allows you to select the category for the financing flow from the drop-down list.
Data Availability	Allows you to indicate whether the data are available.
Data Source 1	Allows you to enter the primary source of the data or information for the financing flow.
Data Source 2	Allows you to enter the secondary source of the data for the financing flow.
Data Source 3	Allows you to enter the third source of the data for the financing flow.

4.10.3.7 Editing a financing flow

You can edit the details of a financing flow, including its name, classification, data availability and data source. To edit a financing flow, follow these steps.

1. Under the **Graphical Flow** tab, click the ellipsis (⋮) corresponding to the financing flow you want to edit.
2. Click **Edit**.

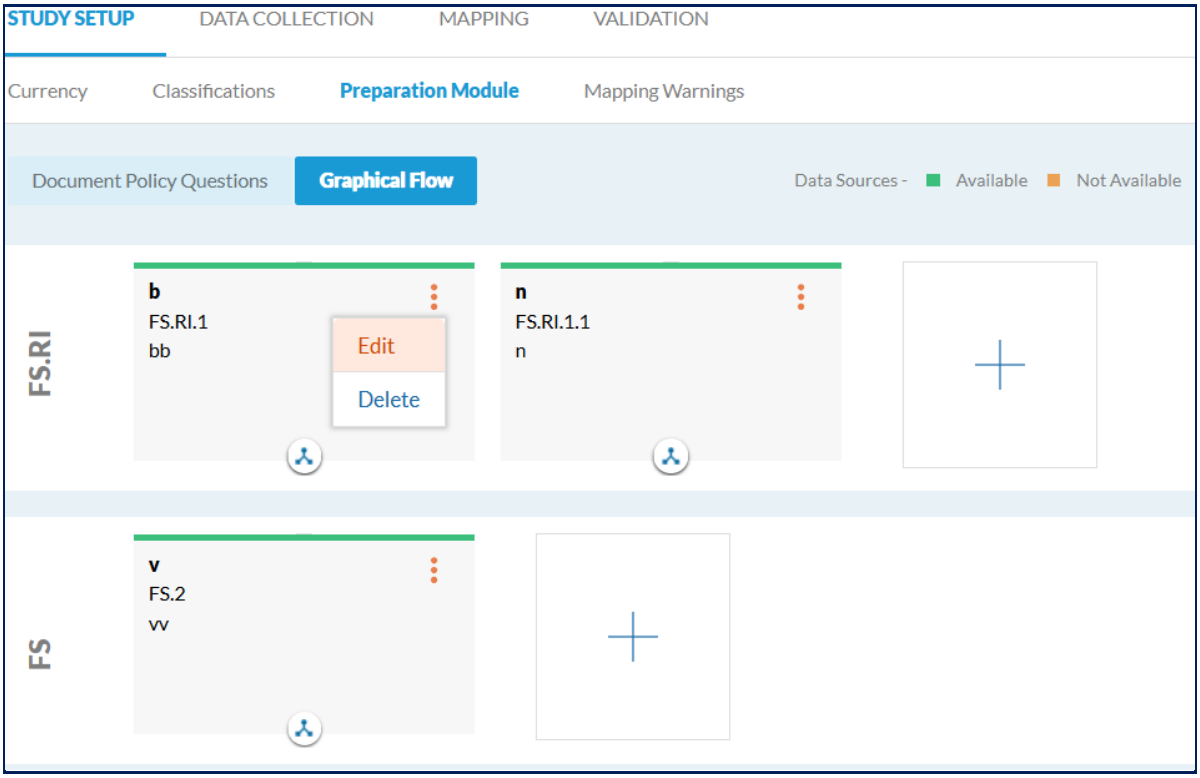


Fig. 4.106. Editing a financing flow

The *Edit* form is displayed.

3. Edit the financing flow details, and then click **Save**.

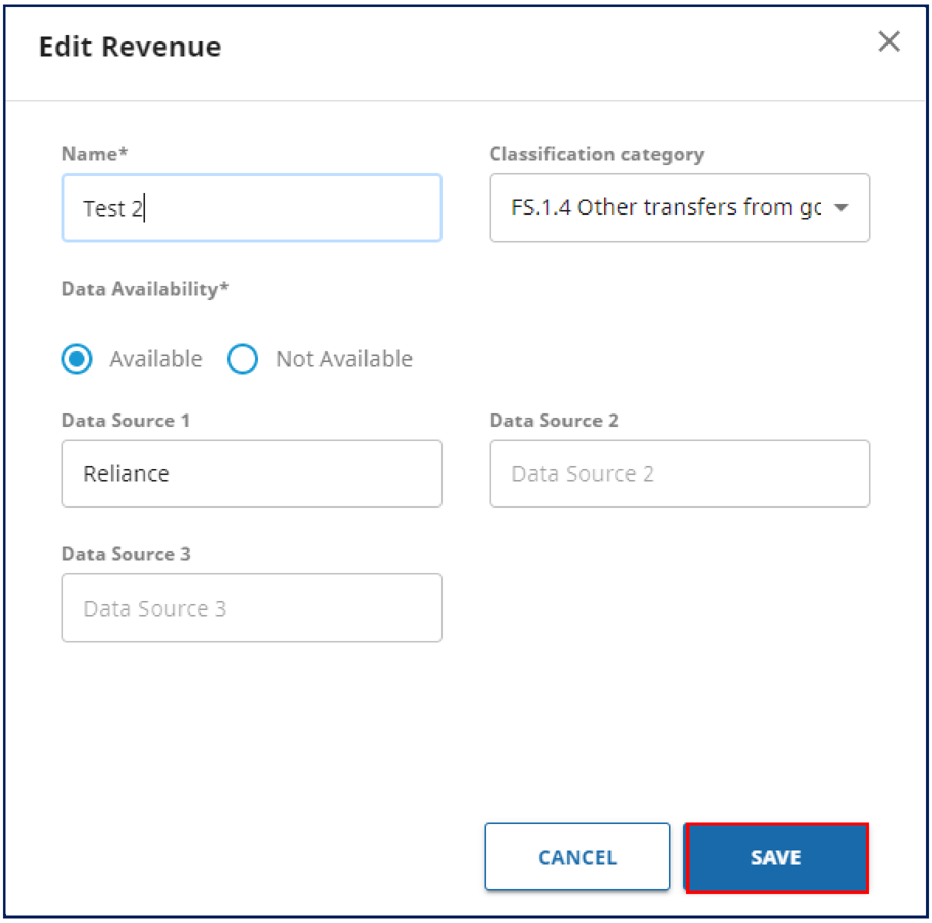


Fig. 4.107. The *Edit Revenue* form

The financing flow details are updated successfully.

4. Check that the financing flow details are updated under the **Graphical Flow** tab.

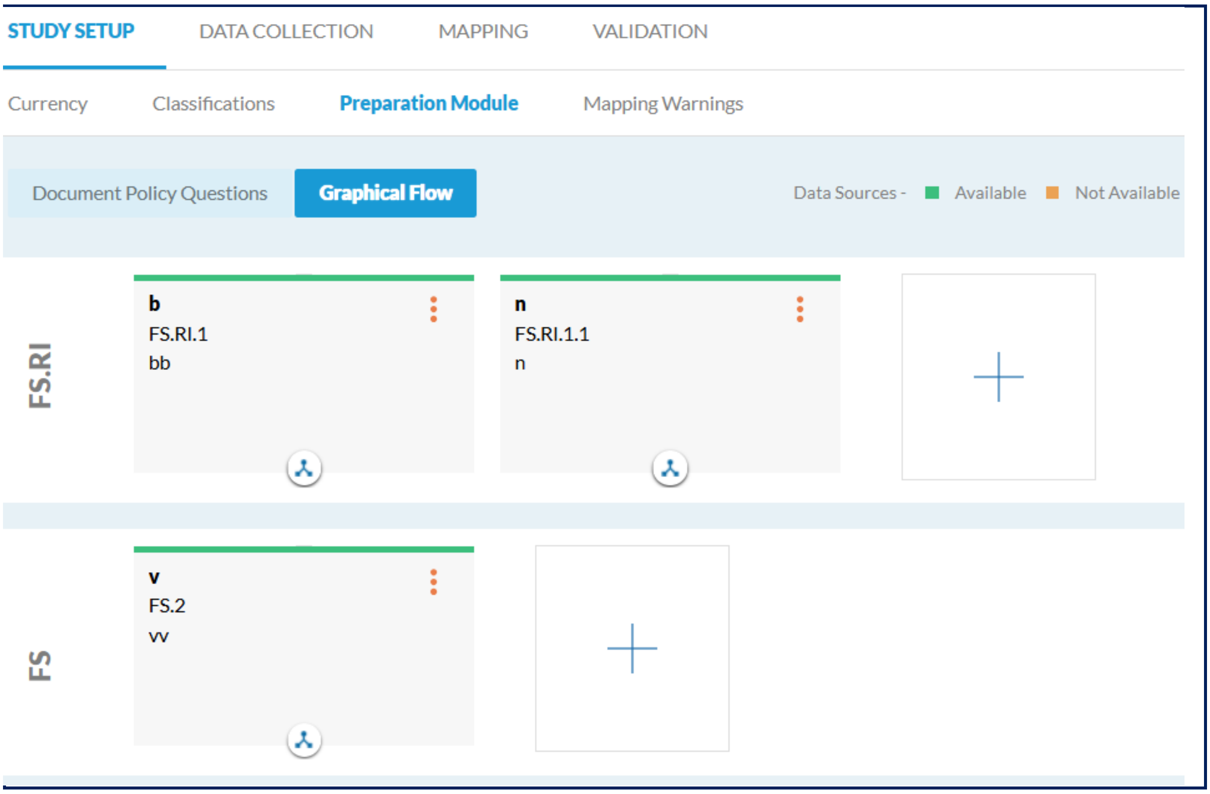


Fig. 4.108. Checking that the financing flow details are updated

4.10.3.8 Deleting a financing flow

To delete a financing flow, follow these steps.

1. Under the **Graphical Flow** tab, click the ellipsis (⋮) corresponding to the financing flow you want to delete.
2. Click **Delete**.

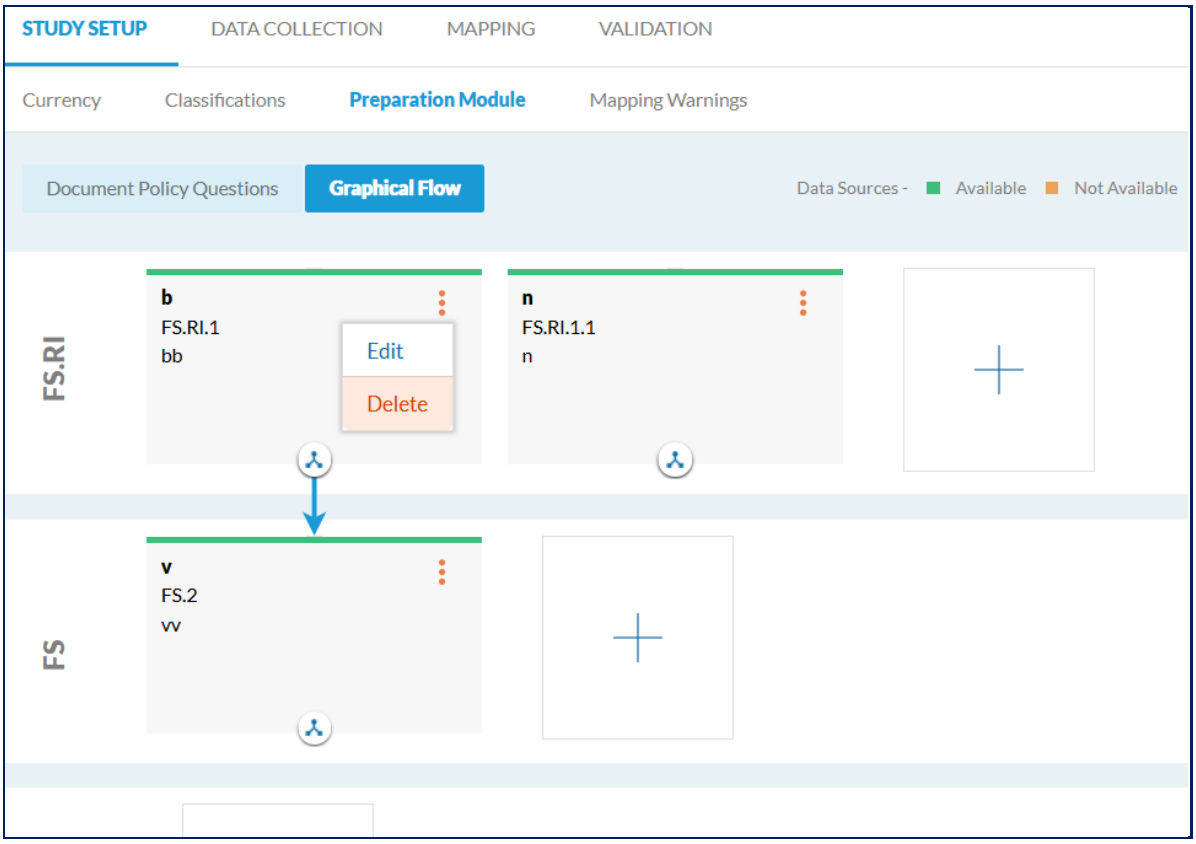


Fig. 4.109. Deleting a financing flow

A message asking you to confirm your action is displayed.

3. To confirm, click **YES**.

The financing flow is deleted successfully, and a confirmation message is displayed.

Note

- To delete all financing flows at once, click **Remove All** (Remove All) under the *Graphical Flow* tab.
- Financing flows that are deleted in this way cannot be restored.

4.10.3.9 Adding a connection between financing flow blocks

Adding a connection between financing flows helps with understanding how the revenues or expenditure data are linked between classifications, by indicating the direction of the data flow.

To connect financing flow blocks, follow these steps.

1. Under the **Graphical Flow** tab, click the connector icon ( ) on the financing flow block.

The outline of the connector icon ( ) turns red when it is selected.

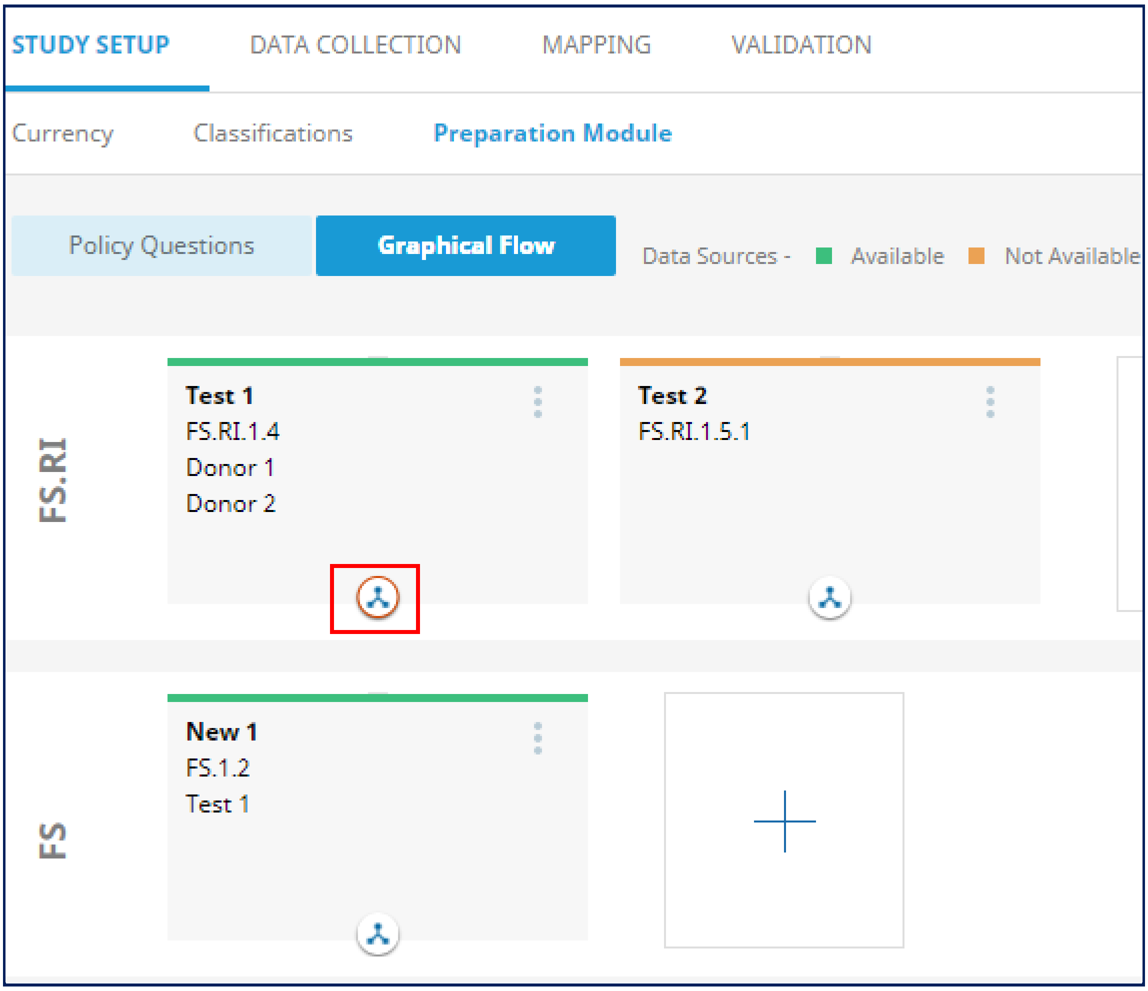


Fig. 4.110. Selecting the connector icon on the source financing flow block

2. Click the destination financing flow block that you want to connect to.

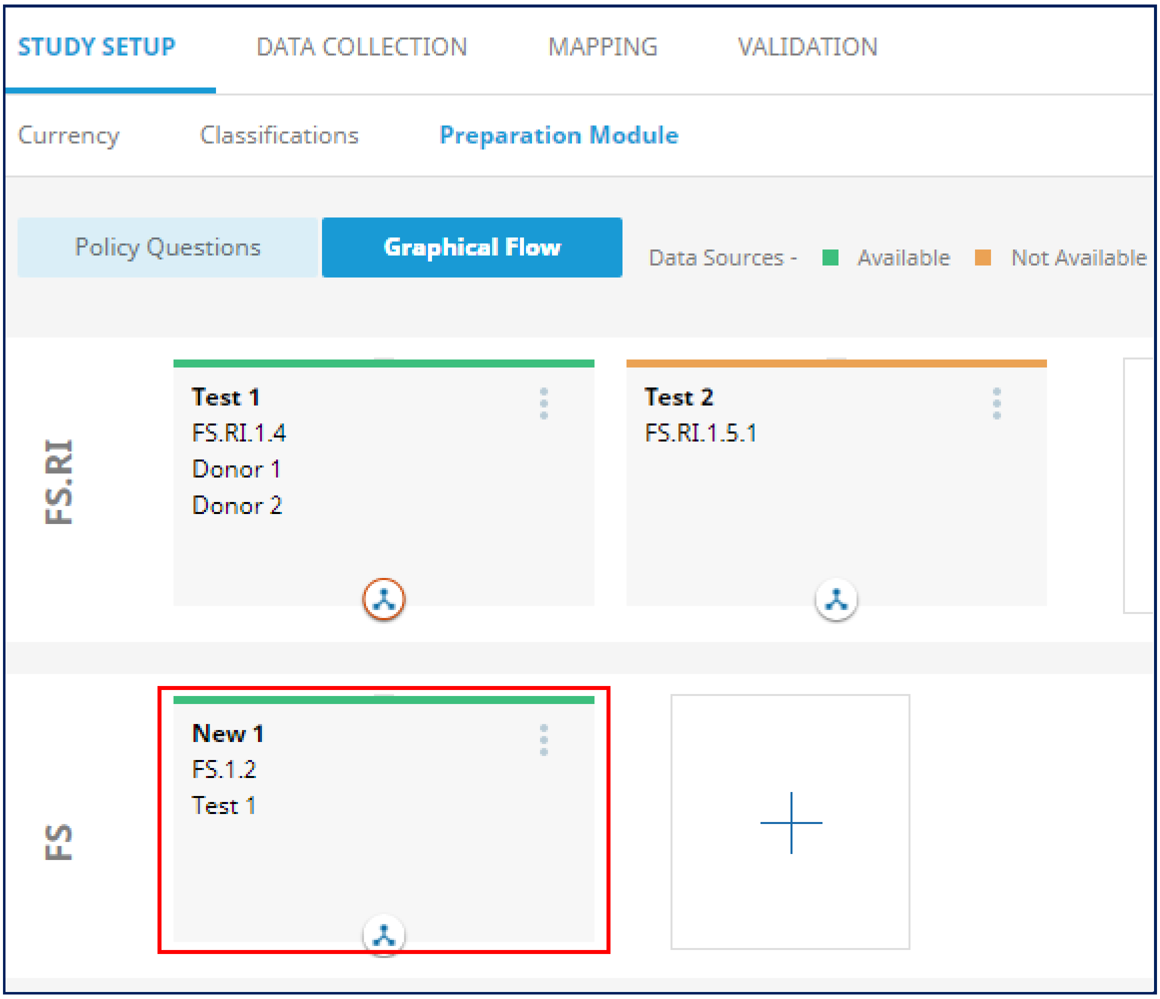


Fig. 4.111. Selecting the destination financing flow block

A blue arrow is displayed, indicating that the connection has been successfully established between the two financing flow blocks.

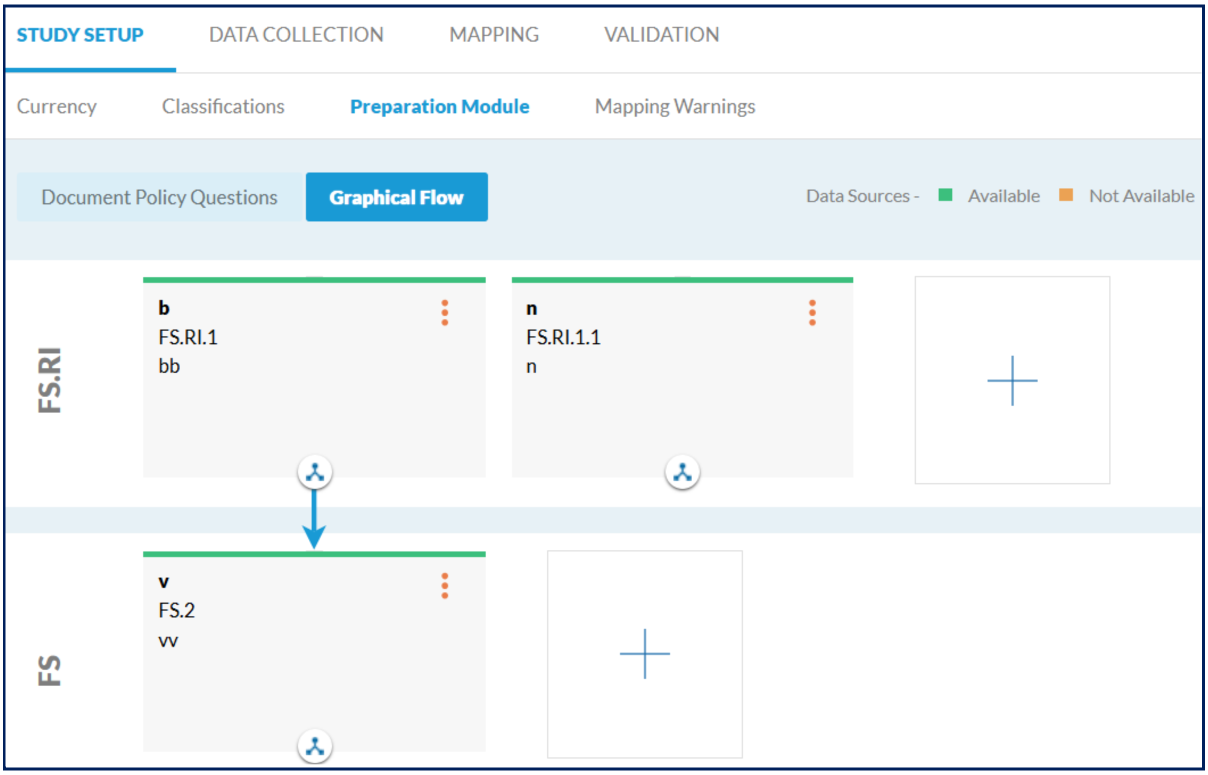


Fig. 4.112. Successfully connecting two financing flow blocks

> **Note**
>
> You can only connect financing flow blocks from top to bottom in the hierarchy.

4.10.3.10 Deleting a connection between financing flow blocks

To delete a connection between financing flow blocks, follow these steps.

1. Under the **Graphical Flow** tab, hover over the arrow for the connection you want to delete.

The blue arrow turns orange and **Remove** is displayed.

2. Click **Remove**.

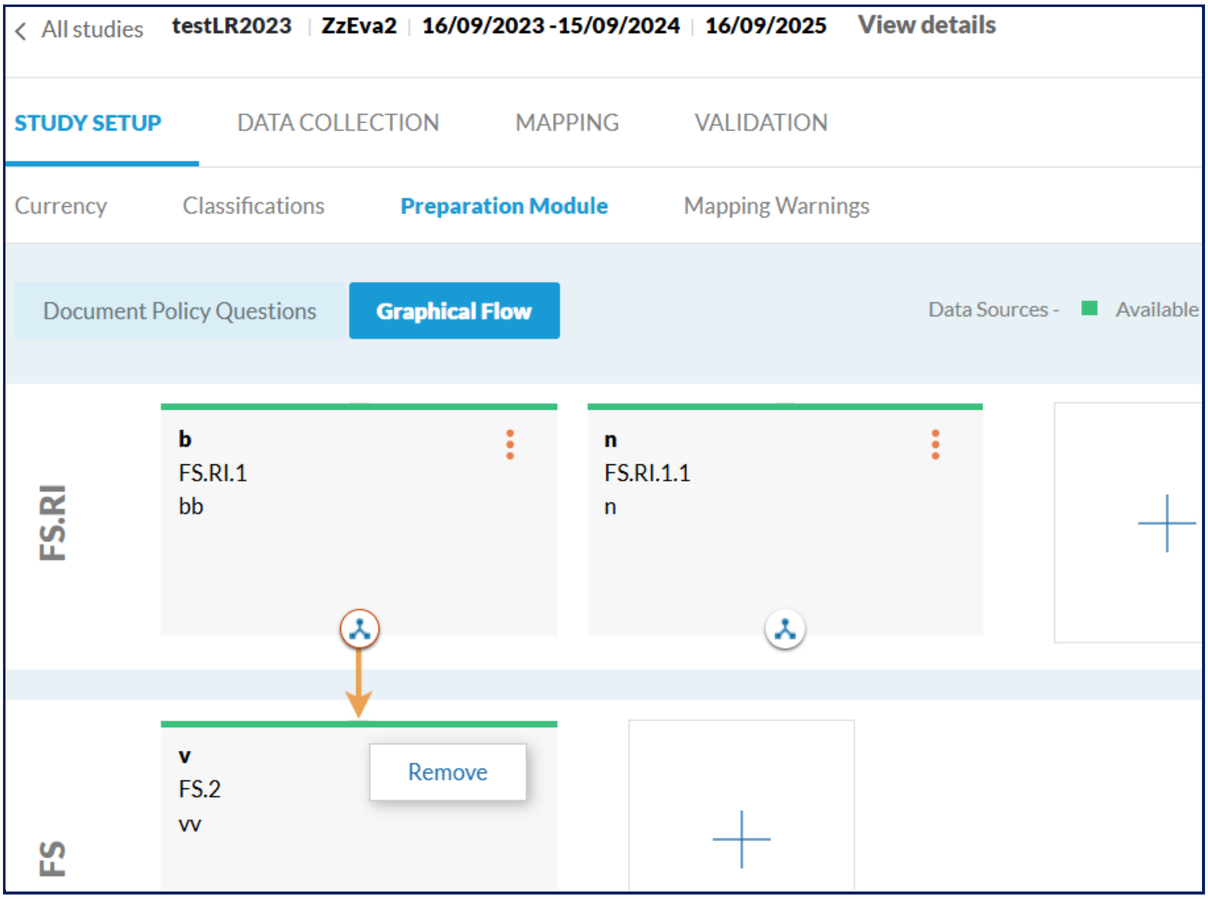


Fig. 4.113. Removing a connection between financing flow blocks

A message asking you to confirm your action is displayed.

3. To confirm, click **YES**.

4.10.3.11 Importing **Preparation** submodule information from a previous study

This feature allows you to import the policy questions and graphical flow diagrams from previously created studies so they can be reused for similar financing flows. You can select which data you want to import from the previous study. Only a TL can use this feature. To import from a previous HA, follow these steps.

To open the previous study, refer to Opening an existing study.

1. Under STUDY SETUP, click **Preparation Module**.

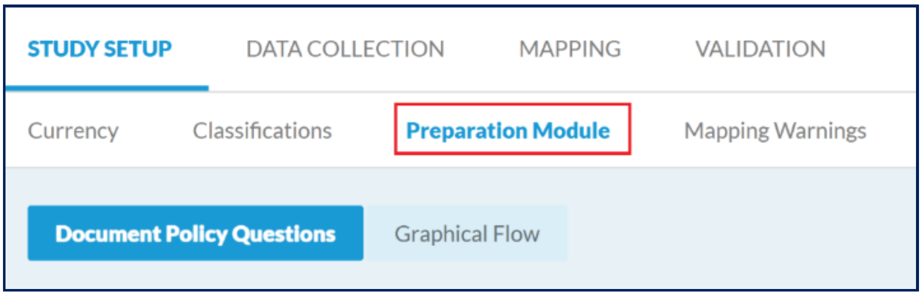


Fig. 4.114. The Preparation module

The Preparation submodule is displayed.

2. Under the Graphical Flow tab, click **Import Previous HA**.

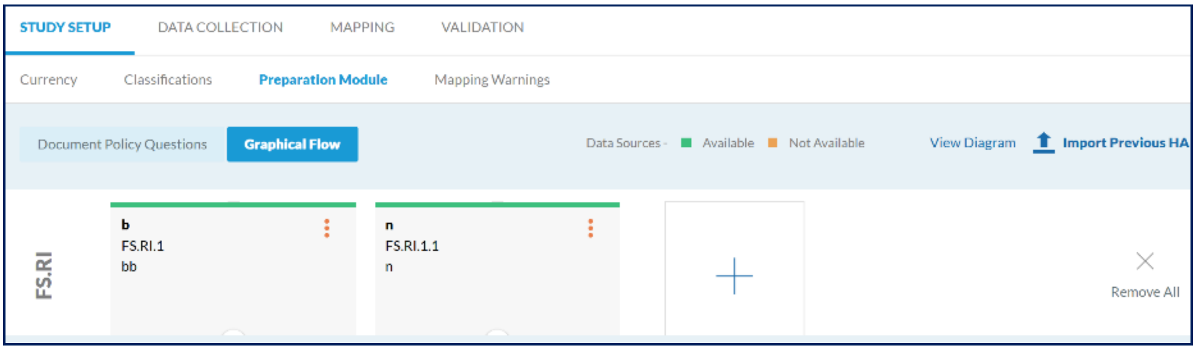


Fig. 4.115. Importing previous HA

The *Import Previous HA* form is displayed.

3. Enter the details in their respective fields, and then click **RE-USE**.

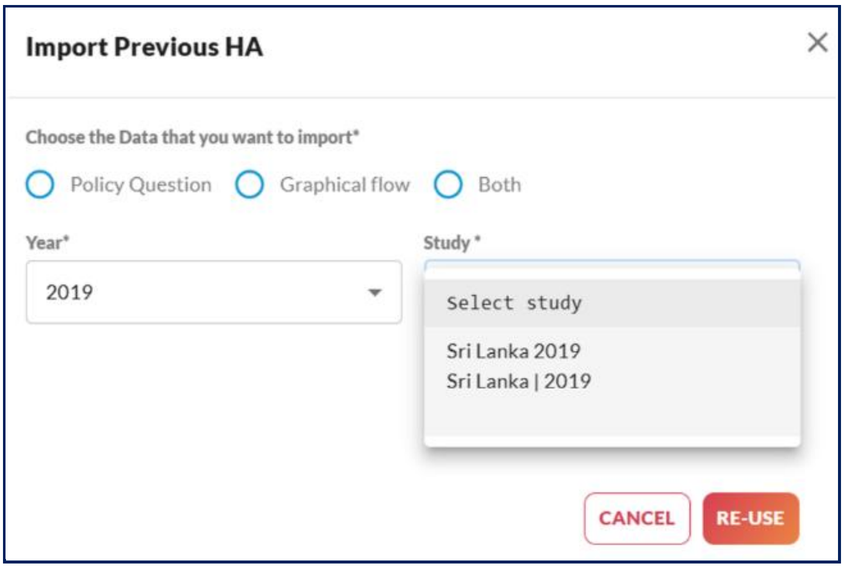


Fig. 4.116. The *Import Previous HA* form

A message asking you to confirm your action is displayed.

4. To confirm, click **YES**.

The selected data from the existing study are imported, and a confirmation message is displayed.

Table 4.14 describes the fields shown in the ***Import Previous HA*** form.

Table 4.14. Description of the fields in the *Importing Previous HA* form

Field name	Description
Policy Question	Allows you to import policy questions from a previous study.
Graphical Flow	Allows you to import a graphical flow diagram from a previous study. To view the graphical flow diagram, refer to Depicting data graphically.
Both	Allows you to import both the policy questions and the graphical flow diagram from a previous study.
Year	Allows you to select the year of the study from which the data will be imported.
Study	Shows the studies for the selected year that have information available to import.

4.10.4 Mapping warnings submodule

Mapping warnings that are applied during the mapping process are displayed here. You can un-silence the warning message to perform a quality check during mapping. Warnings can be un-silenced for any of:

- a data row
- all data rows of the same data source
- several data sources of the same data source type
- several data source types
- an entire study.

You can also edit the comments that are added when silencing the warning.

To silence a warning during mapping, please refer to Quality check during mapping.

4.10.4.1 Un-silencing mapping warnings

To un-silence a mapping warning for a single row of the grid, follow these steps.

1. Click the toggle button under the “Un-silence” column for the row you want to un-silence.

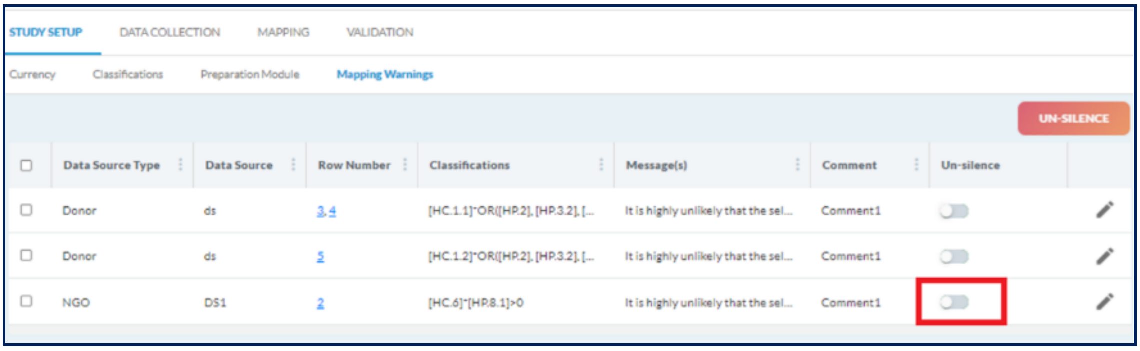


Fig. 4.117. Un-silencing a mapping warning for a single row

A message asking you to confirm your action is displayed.

2. To confirm, click **UN-SILENCE**.

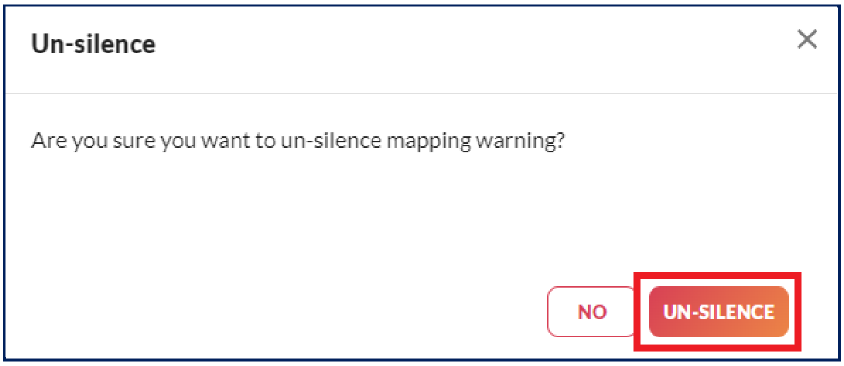


Fig. 4.118. Confirmation box for un-silencing a mapping warning for a single row

3. A confirmation message is displayed when the mapping warning is un-silenced.

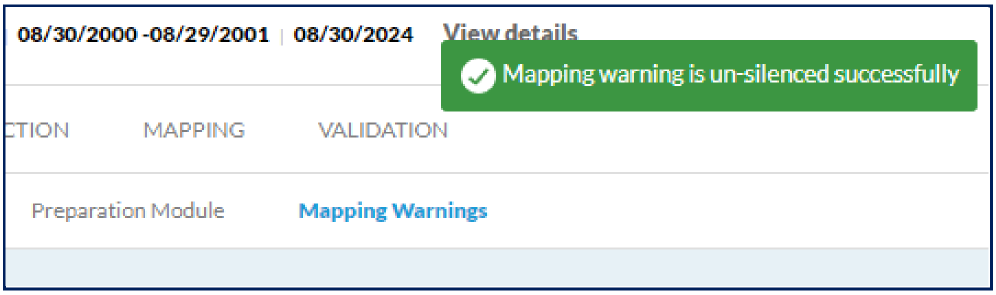


Fig. 4.119. Confirmation message when un-silencing a mapping warning

The warning is un-silenced, and the associated row is deleted from the grid.

To un-silence mapping warnings for several rows of the grid, follow these steps.

1. Select the check boxes next to the rows you want to un-silence.

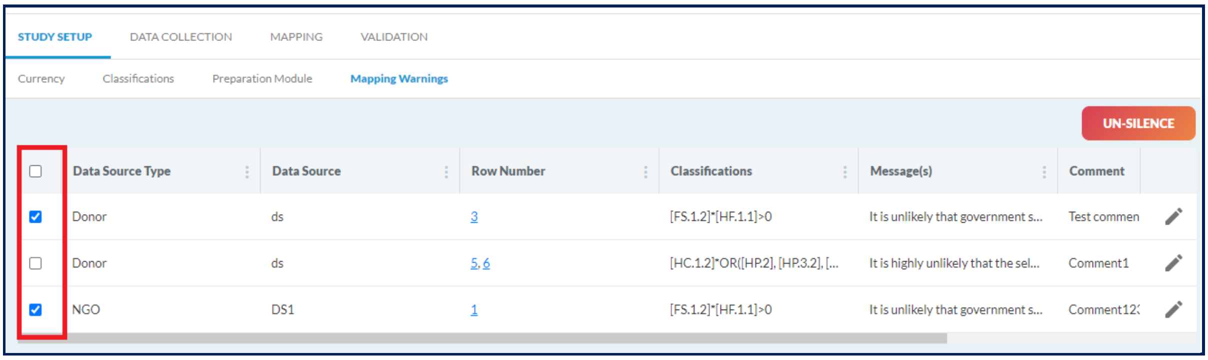


Fig. 4.120. Selecting rows to un-silence mapping warnings

2. Click **UN-SILENCE**.

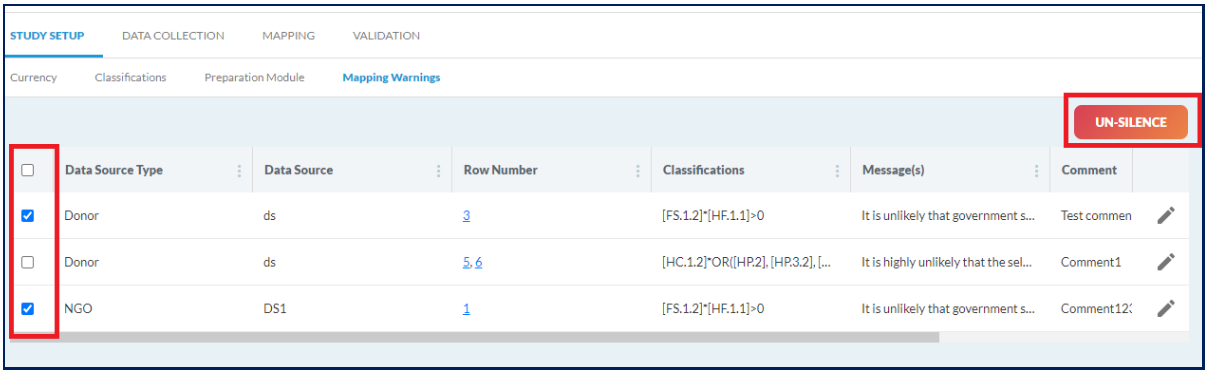


Fig. 4.121. Un-silencing mapping warnings for several rows

A message asking you to confirm your action will be displayed.

3. To confirm, click **UN-SILENCE**.

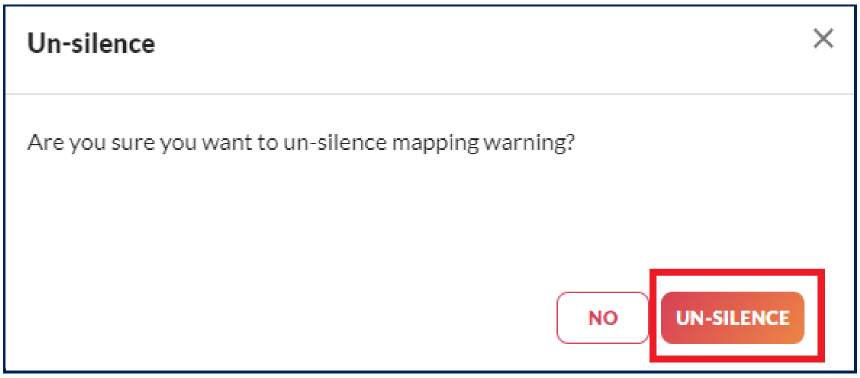


Fig. 4.122. Confirmation box for un-silencing mapping warnings for several rows

4. A confirmation message is displayed when the mapping warnings are un-silenced.

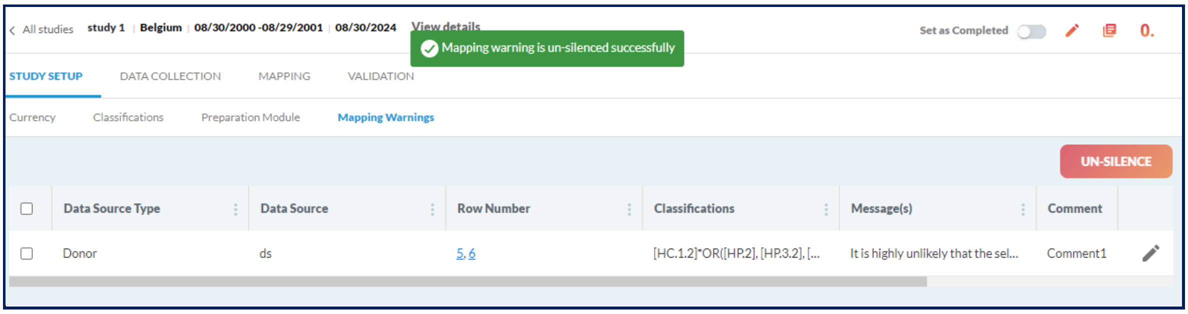


Fig. 4.123. Confirmation message when un-silencing mapping warnings for several rows

The warnings are un-silenced for the selected rows, and the rows will be deleted from the grid.

4.10.4.2 Un-silencing mapping warnings for a single data row

To un-silence a mapping warning for a single data row, follow these steps.

1. Select the data row for which you want to un-silence the mapping warning.

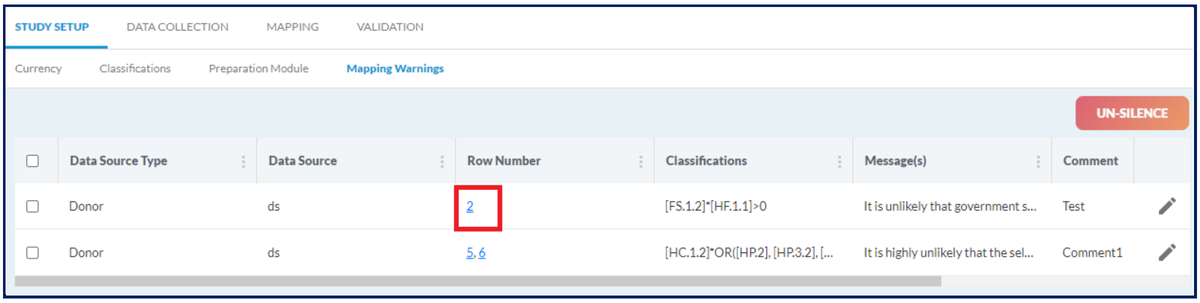


Fig. 4.124. Selecting a single data row to un-silence a mapping warning

2. The mapping tree for the selected data row opens in a new tab. Click **Warnings**.

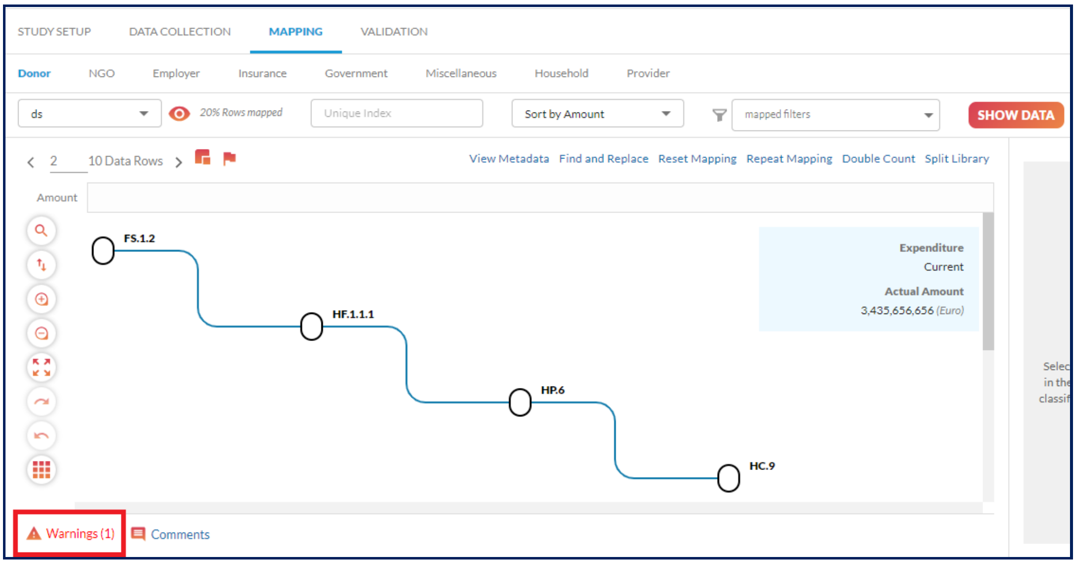


Fig. 4.125. Mapping tree for a selected data row

The ***Warnings*** form is displayed.

3. Click the toggle button under the “Un-silence” column.

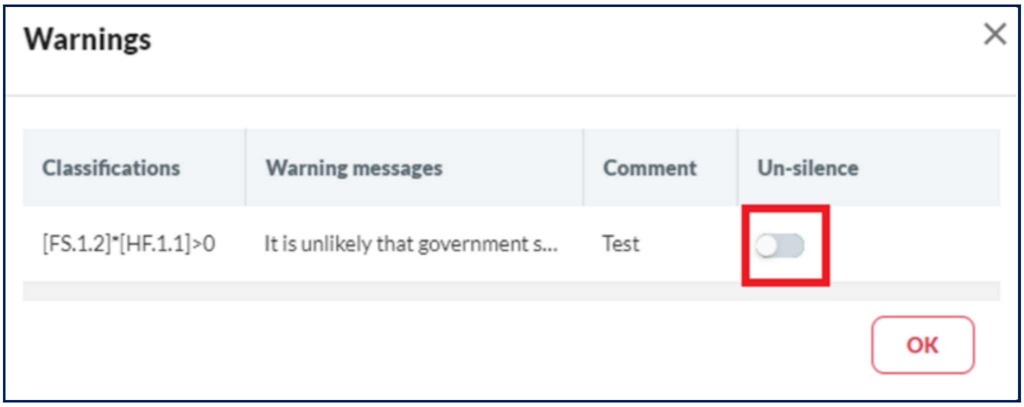


Fig. 4.126. Un-silencing a mapping warning for a single data row

4. Select the instances for which the warning will be un-silenced and click **OK**.

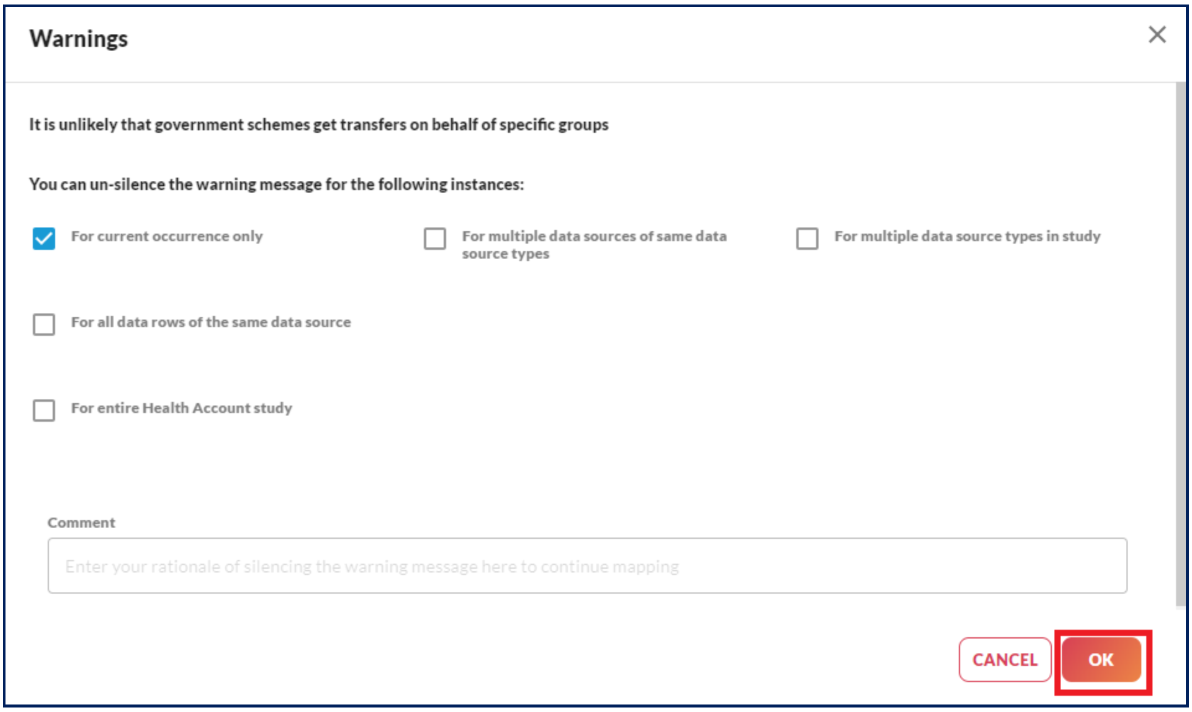


Fig. 4.127. Selecting the instances for which the mapping warning will be un-silenced

The warning will be un-silenced for the selected instances.

4.10.4.3 Editing or adding mapping warning comments

This feature allows editing of the comments that have been added when silencing mapping warnings.

To edit a comment, follow these steps.

1. Click the pencil icon ( ) next to the comment you want to edit. (The comment box may be empty.)

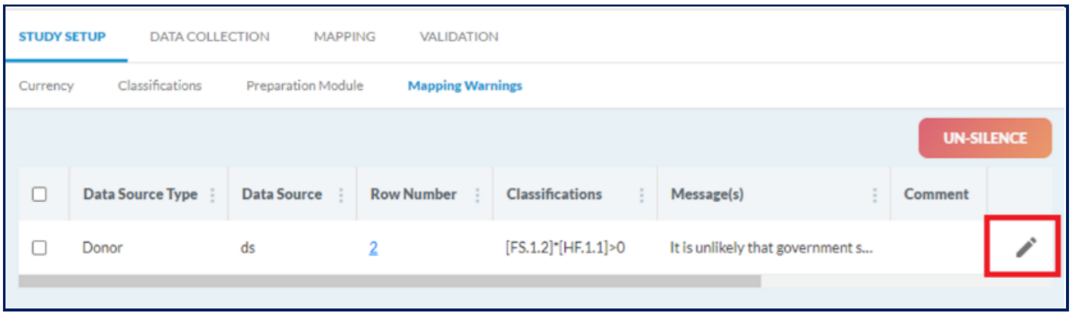


Fig. 4.128. Editing a comment for a mapping warning

The *Edit Comments* form is displayed.

3. Edit the comment, then click **SAVE**.

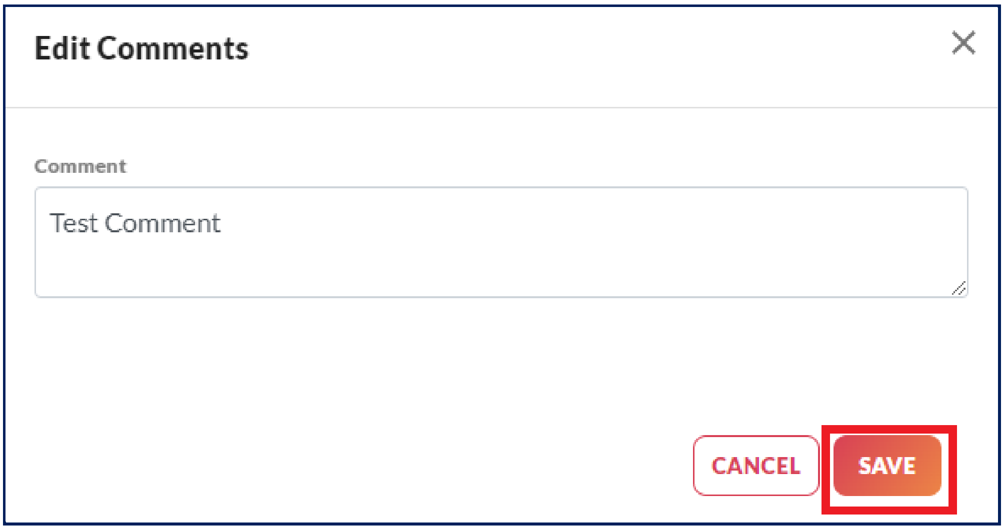


Fig. 4.129. The *Edit Comments* form

4. A confirmation message is displayed when the comment is edited.

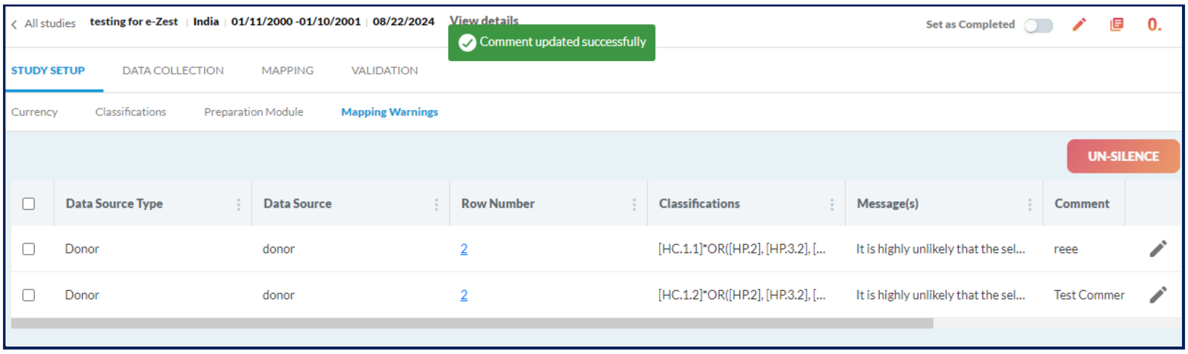


Fig. 4.130. Confirmation message when editing a comment for a mapping warning

5. DATA COLLECTION module

A crucial step for creating a study in HAPT is data collection. Data collection refers to the gathering of information to perform mapping and HA analysis. Data can be collected from various data sources. In HAPT, two types of data can be used: survey data and secondary data.

For survey data, a survey link is shared with donors, NGOs, employers, insurance companies and providers. HAPT has a predefined survey template that can be circulated to the data sources to collect data.

Secondary data are collected for purposes other than HA analysis, but they can be used for producing HA from the given sources. In HAPT, secondary data can be entered manually or imported from Excel files.

Secondary data are also collected from government agencies and households. Household data are collected separately, with row-level information entered for each health expenditure figure. These data can be imported or entered manually.

Note

- Up to 100 data rows can be inserted manually at a time.
- Up to 200 000 data rows can be imported from Excel at a time.
- A TL can modify details for all data source types. A TM can modify details if they are assigned to that specific data source type.

5.1 Data sources page

By default, when you select the **DATA COLLECTION** module, you will see the Data sources page. Data sources are the entities that hold the information related to the study. In HAPT, eight types of entities are available:

- Donor
- NGO
- Employer
- Insurance
- Government
- Miscellaneous
- Household
- Provider.

5.1.1 Adding data sources

The first step in collecting HA data is to create a list of all organizations within a given data source type. The organization can be added in one of three ways:

1. manually entering information into a pop-up window
2. importing from an Excel file
3. importing a list from a previous HA study.

5.1.2 Adding data sources manually

1. Click the DATA COLLECTION module.

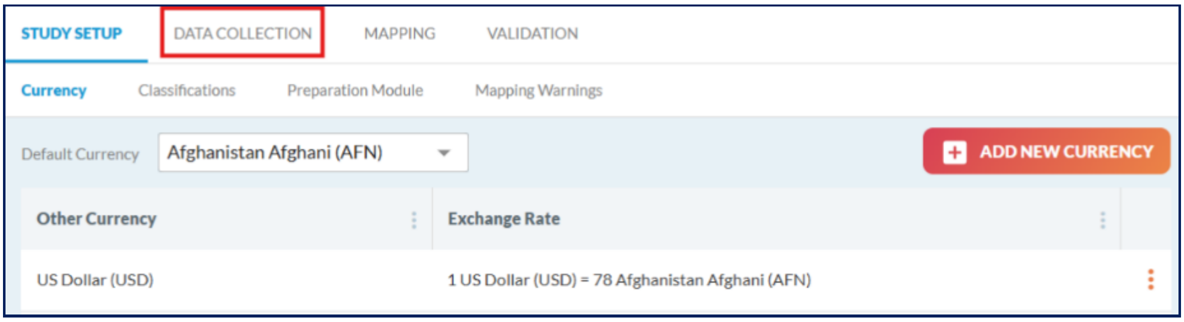


Fig. 5.1. The DATA COLLECTION module

The DATA COLLECTION module is displayed. Navigate between the eight data source types by clicking on the labels at the top of the window.

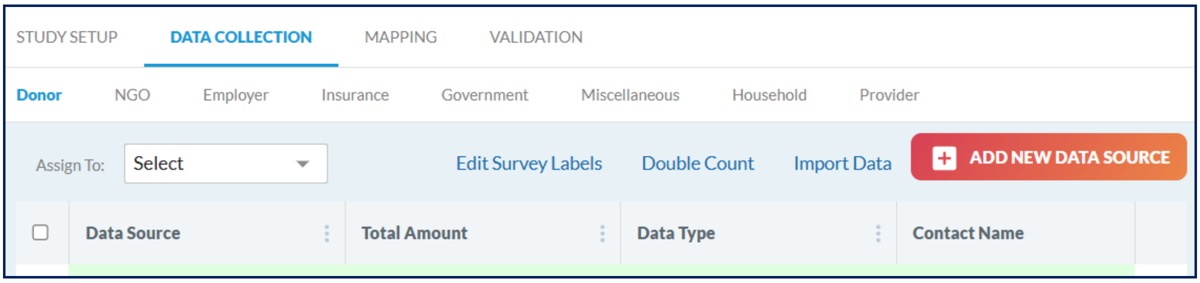


Fig. 5.2. The DATA COLLECTION module

Table 5.1 describes the fields and buttons shown in the DATA COLLECTION module. Not all options are available for all data source types.

Table 5.1. Description of the fields and buttons in the DATA COLLECTION module

Field/button name	Description
Edit Survey Labels	Allows you to edit the survey labels. Surveys are a data collection method in which the data are entered by entities. This option is available for the following data source types: “donor”, “NGO”, “employer”, “insurance” and “provider”.
Double Count	Eliminates double-counted expenditure from donors and NGOs, This option is available only for the “donor” and “NGO” data source types, as these data sources may include records of transfers between donors and NGOs, potentially leading to duplication.
Weighting	Helps you estimate health expenditure based on assumptions. This option is available for the following data source types: “NGO”, “employer”, “insurance” and “provider”.
Import Data	Allows you to import data from Excel files. This option is available for all data source types.
ADD NEW DATA SOURCE	Allows you to add a new data source. This option is available for all data source types.
Export	Allows you to export information about selected data sources. This option is available for all data source types. It becomes available when one or more data source rows are selected using the check boxes.

2. Choose a data source type by clicking on the relevant label, and then click **ADD NEW DATA SOURCE**.

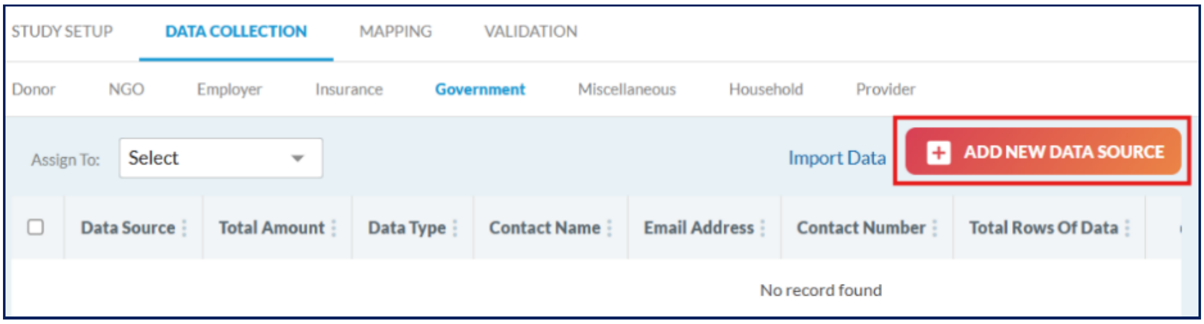


Fig. 5.3. Adding a new data source

The *Add new data source* form is displayed.

3. Select the data source parameters, and then click **ADD**.

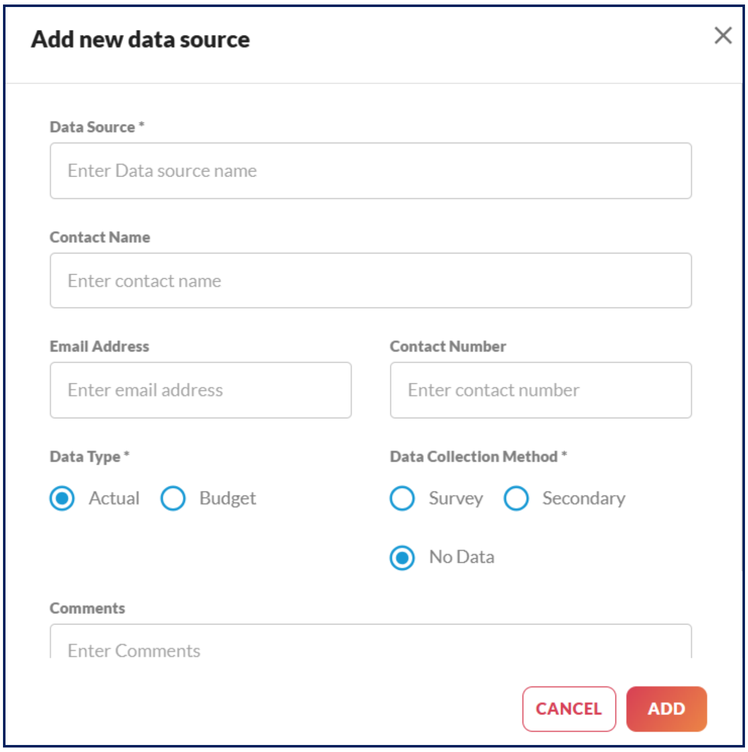


Fig. 5.4. The *Add new data source* form

Table 5.2 describes the fields and buttons shown in the ***Add new data** source* form. Depending on the data source type, the fields may vary.

Table 5.2. Fields and buttons shown in the *Add new data source* form

Field/button name	Description
Data Source	Allows you to name the data source.
Contact Name	The name of the contact person for the data.
Email Address	The email address of the contact person for the data.
Contact Number	The phone number of the contact person for the data.
Data Type	Allows you to select the data type. The options are Actual expenditure and Planned Budget.
Data Collection Method	Allows you to select the data collection method. The options are Survey, Secondary and No data.
Comments	Allows you to enter comments about the data.

The data source is added successfully.

Note

- You cannot choose between survey and secondary data for the Government, Miscellaneous and Household data source types.
- For data sources Provider, Employer, Insurance, Miscellaneous and Household, the data type is set to “Actual” by default. You cannot update this.
- The ***Add new data source*** form is available for all data source types. You can also create, edit, delete and duplicate data source operations.

5.1.3 Importing a data source list from Excel

You can import the required data source Excel file from your computer system. The data source is imported in the `.xlsx` file format.

1. Under the DATA COLLECTION module, click the upload icon (; at the top-right corner of the page).
2. Click **Import from excel**.

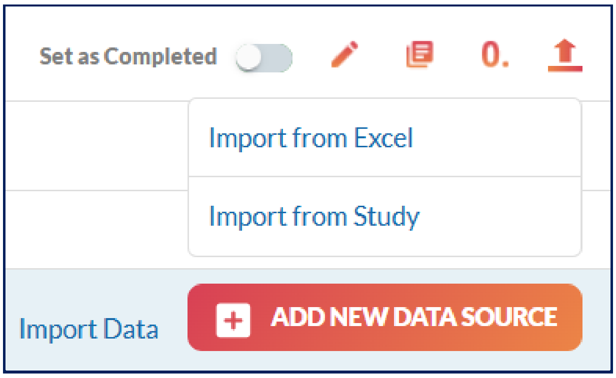


Fig. 5.5. Importing a data source Excel file

The ***Import Data sources*** page is displayed.

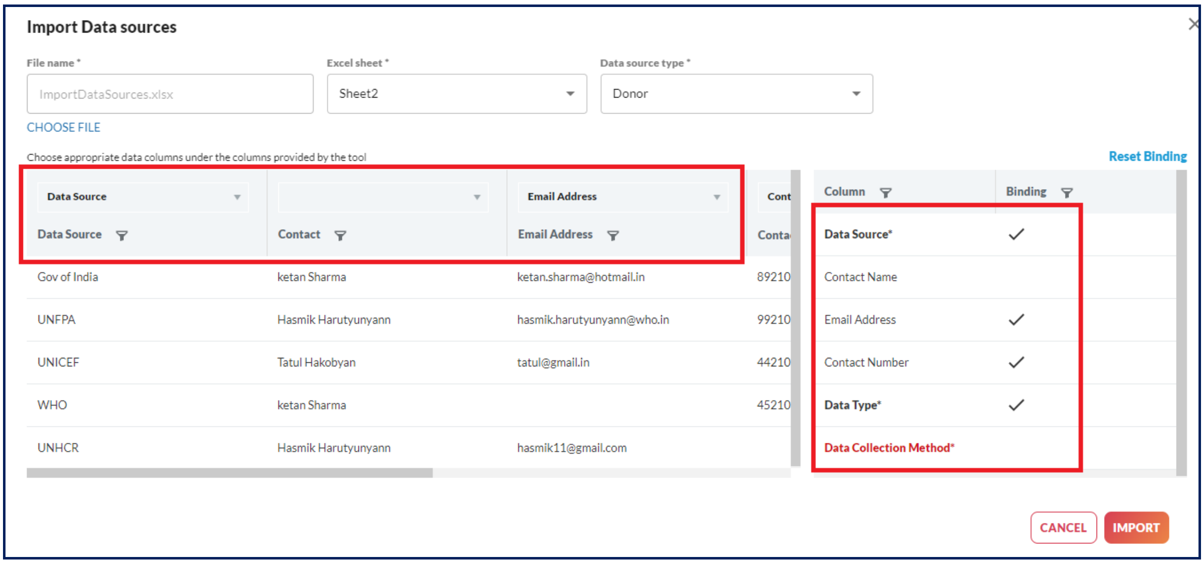


Fig. 5.6. The *Import Data sources* page

Table 5.3 describes the fields and buttons shown on the ***Import Data sources*** page.

Table 5.3. Description of the fields and buttons on the *Import Data sources* page

Field/button name	Description
File name	Displays the name of the data source file to be imported.
Excel sheet	Allows you to select the Excel sheet to be imported.
Data source type	Allows you to select the data source type from a list.
Reset Binding	Resets the binding.

3. To import a file, click **CHOOSE FILE**.

Fig. 5.7. Choosing a data source file to import

4. Select the required Excel file using the file browser, and then click **Open**.
5. Select the Excel sheet needed from the ***Excel sheet*** drop-down menu.

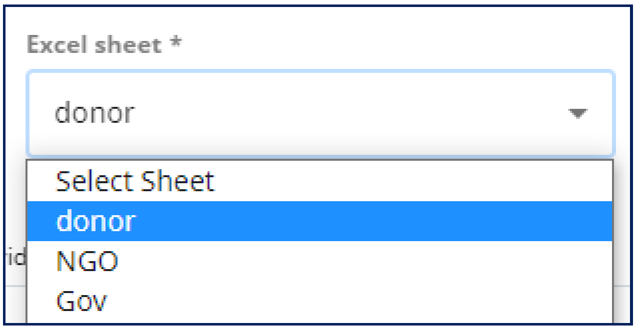


Fig. 5.8. Selecting a sheet from a data source Excel file

6. Select the data source type from the ***Data source type*** drop-down menu.

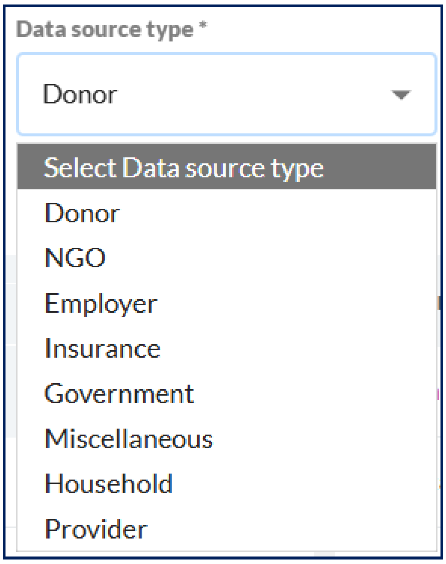


Fig. 5.9. Selecting the data source type

Note: If you have more than one sheet in your selected Excel file, select any one sheet that is to be imported.

If the headers in the Excel sheet match exactly with the headers in the tool, the columns will automatically bind. If the headers do not match, you can manually bind the columns.

To import data sources from Excel, "Data source", "Data type" and "Data collection method" are mandatory columns. Other columns are optional.

The data columns are populated and bound with the tool.

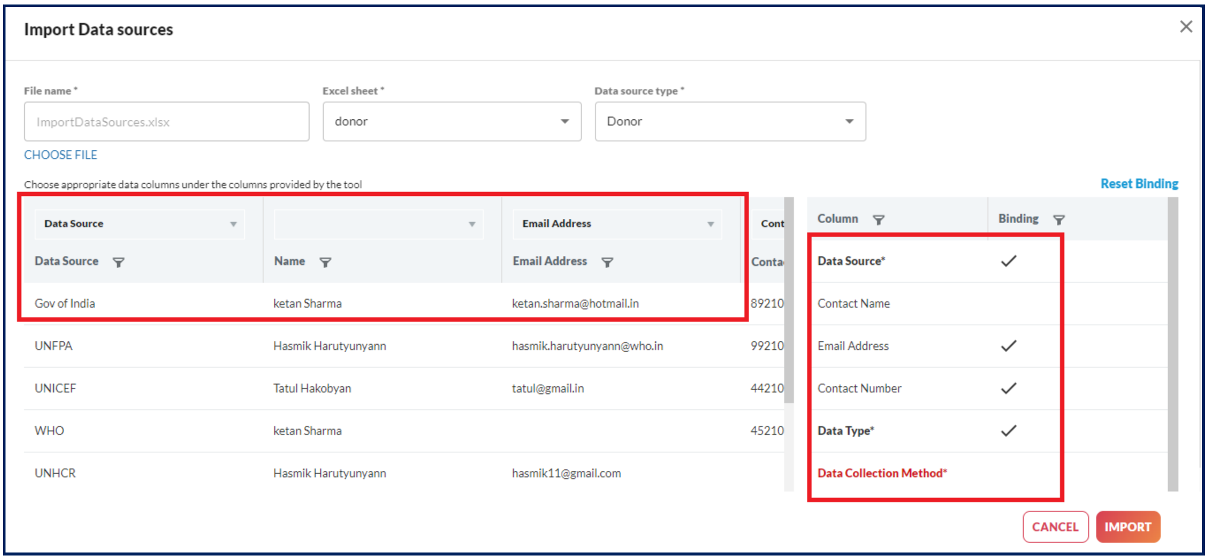


Fig. 5.10. Populated data columns

When columns are bound to their respective fields, a check mark appears in the right grid under the "Binding" column. The colour of the mandatory field names also changes from red to black.

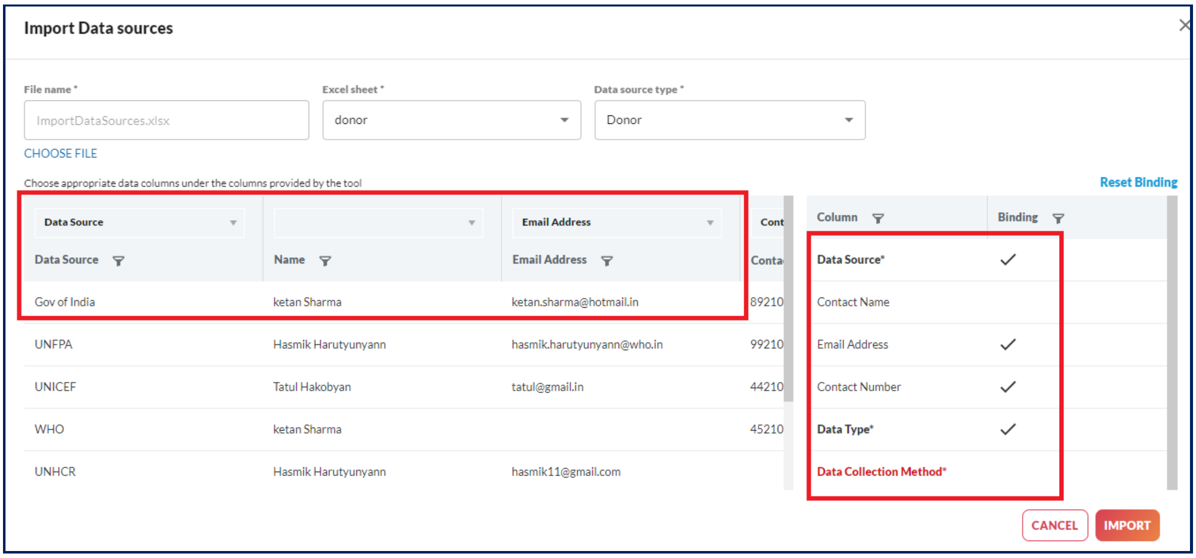


Fig. 5.11. Columns with binding

7. Click **IMPORT**.

Fig. 5.12. Importing a data source Excel file

If the data source type has existing imported data sources, a message asking you to confirm your action will be displayed.

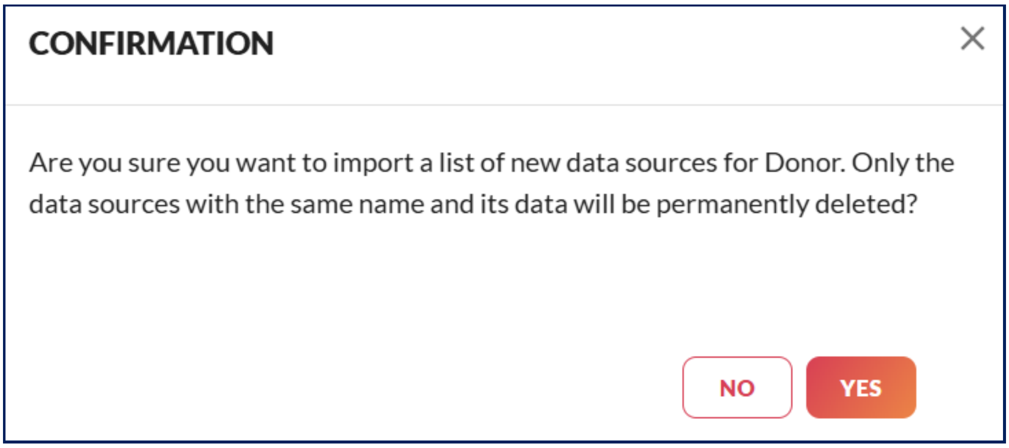


Fig. 5.13. Confirmation of the import of a data source file

Note

- Excel may have different column headings such as “Currency”, “Amount”, “Budget line code”, “Project name”, “Project description”, “Activity”, “Age” and “Contact phone number of respondent”.
- You can also import a data source file for the “Household” data source type.
- Mandatory field names are red when columns are not bound to the fields. The field names will change to black once columns are bound to the fields.

After successfully importing the list of data source(s), the screen shows how many rows from the Excel sheet were successfully imported and which rows could not be imported because of an error.

Fig. 5.14. Import status of the data source file

The import of data sources may fail for various reasons:

1. duplicate name
2. missing data source name
3. missing or incorrect data type (actual, budget)
4. missing or incorrect data collection method (survey, secondary, no data).

5.1.4 Importing a data source list from a previous HA study

The data sources from an existing study can be imported. This option is now also available for the “household” data source type. To import data sources from an existing study, follow these steps.

1. Under the DATA COLLECTION module, click the import icon ( ) at the top-right corner of the page.
2. Click **Import from study**.

The ***Import data sources*** form is displayed.

3. Select the study and data source types to import, and then click **IMPORT**.

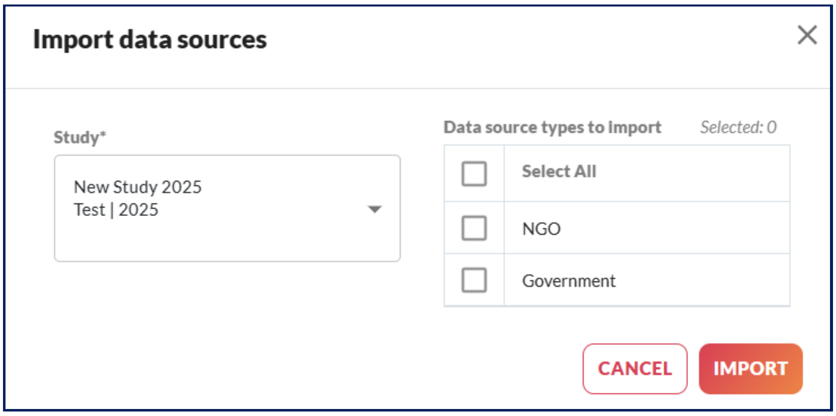


Fig. 5.15. Importing a data source list from an existing study

5.1.5 Editing a data source

To edit a data source, follow these steps.

1. Click the ellipsis ( ) corresponding to the required data source.
2. Click **Edit**.

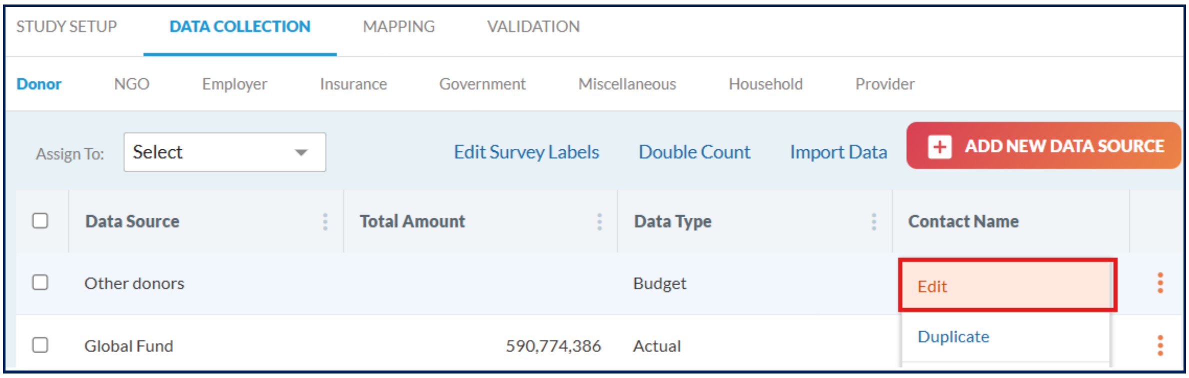


Fig. 5.16. Editing a data source

The ***Edit Data Source*** screen is displayed.

3. Edit the data source details as required, and then click **SAVE**.

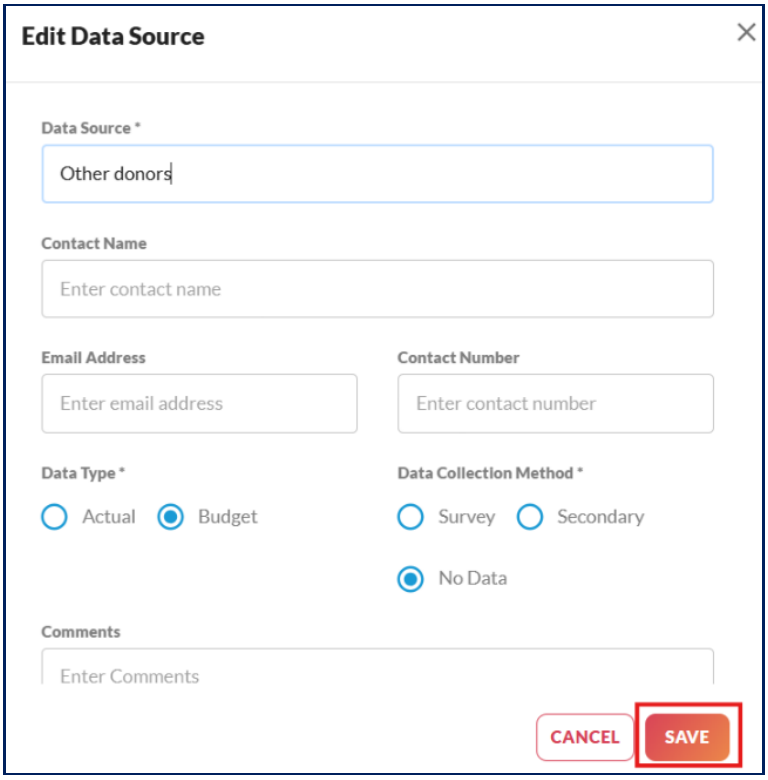


Fig. 5.17. Editing data source details

5.1.6 Duplicating a data source

Data sources can be duplicated. Duplicating a data source allows you to use the same information in another data source. To duplicate a data source, follow these steps.

1. Click the ellipsis (⋮) corresponding to the required data source.

2. Click **Duplicate**.

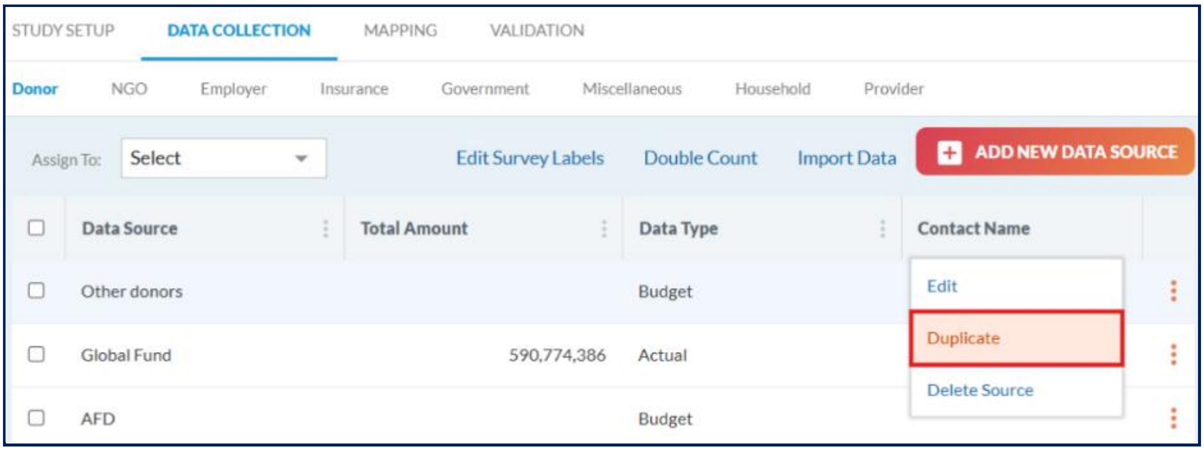


Fig. 5.18. Selecting a data source to duplicate

The ***Duplicate Data Source*** screen is displayed.

3. Enter the details for the duplicate data source in their respective fields, and then click **DUPLICATE**.

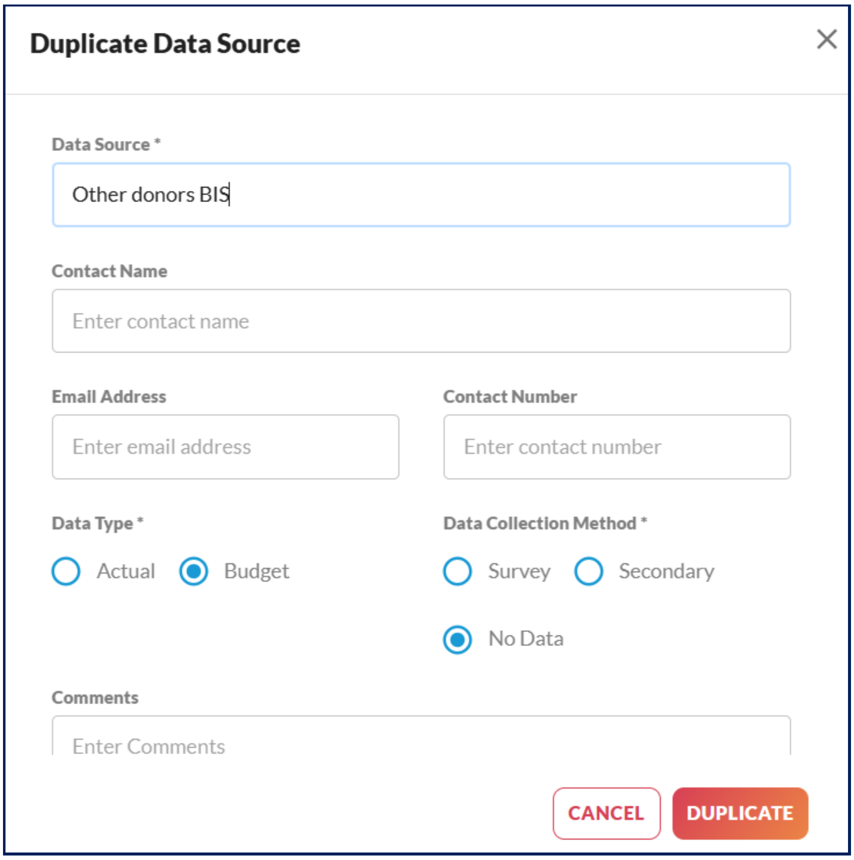


Fig. 5.19. Duplicating a data source

Note

- When duplicating a data source, the name of the data source must be different from the original data source.
- This method only duplicates the data source details. Data rows within the data source are not duplicated.

5.1.7 Deleting a data source

Deleting a data source deletes the data source and the data rows belonging to that source. To delete a data source, follow these steps.

1. Click the ellipsis (⋮) corresponding to the data source you want to delete.
2. Click **Delete Source**.

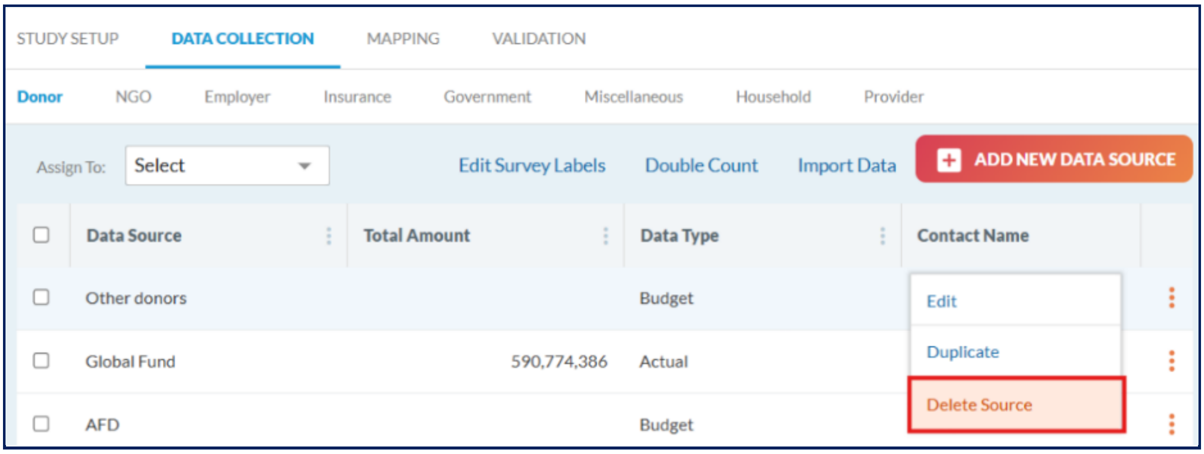


Fig. 5.20. Deleting a data source

A message asking you to confirm your action is displayed.

3. To confirm, click **YES**.

The data source is deleted, and a confirmation message is displayed.

4. When the data source is deleted, you will be asked for confirmation to reload the page. Upon reloading, the data are displayed.

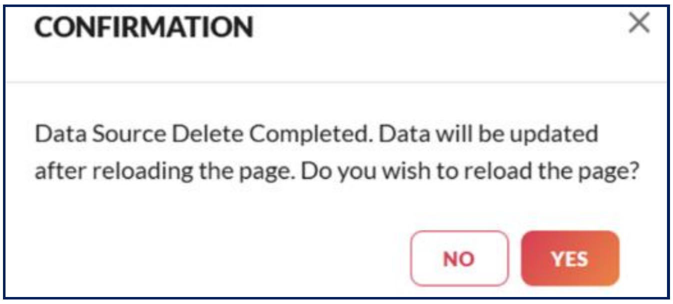


Fig. 5.21. Deleting a data source: success

Notifications are shown when data source deletion starts and finishes.

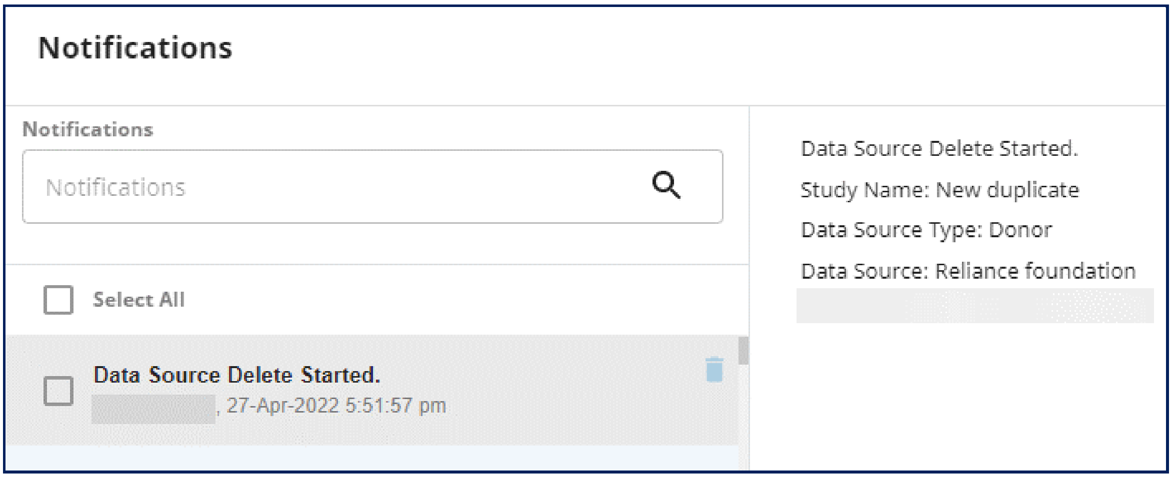


Fig. 5.22. Notification when data source deletion has started

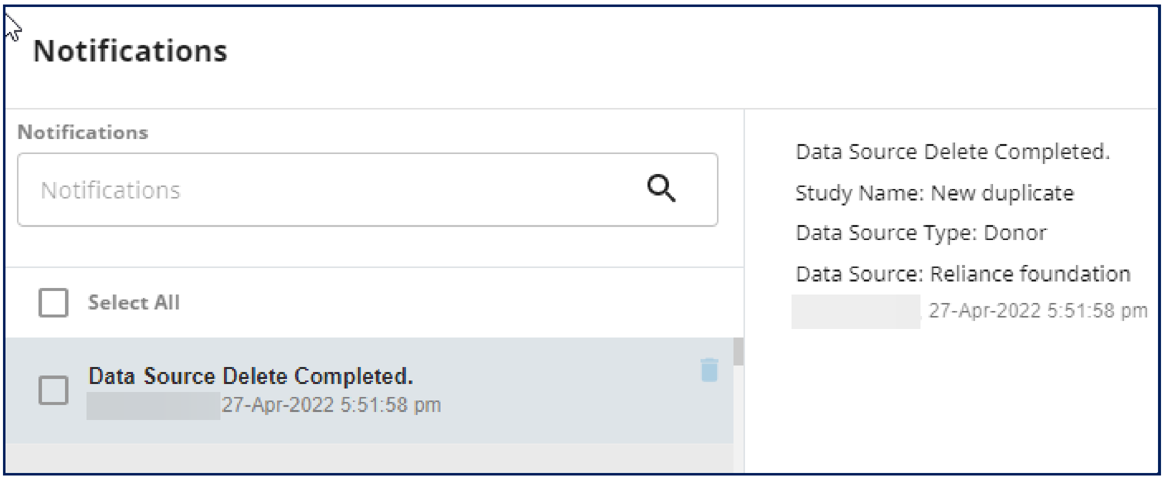


Fig. 5.23. Notification when data source deletion has completed

Both the "Started" and "Completed" notifications contain details about the deleted data source, including its name, type and the study. The notifications also show the name of the user who deleted the data source, and the date and time it was deleted.

5.1.8 Assigning a team member to a data source type

A TL can assign permissions to a TM for editing data from different data source types, allowing the TM to perform actions based on their assigned role permissions. To assign a TM a data source type, follow these steps.

The preconditions are as follows:

- the study has been assigned to the relevant country
- the TM has been assigned to the same country as the study.

1. Open the **DATA COLLECTION** module.

Fig. 5.24. The DATA COLLECTION module

2. Select the data source type by clicking on its label at the top of the page.
3. Click the ***Assign To*** drop-down menu. This shows the TMs who have been assigned to the same country as the relevant study.
4. Select a TM from the list.

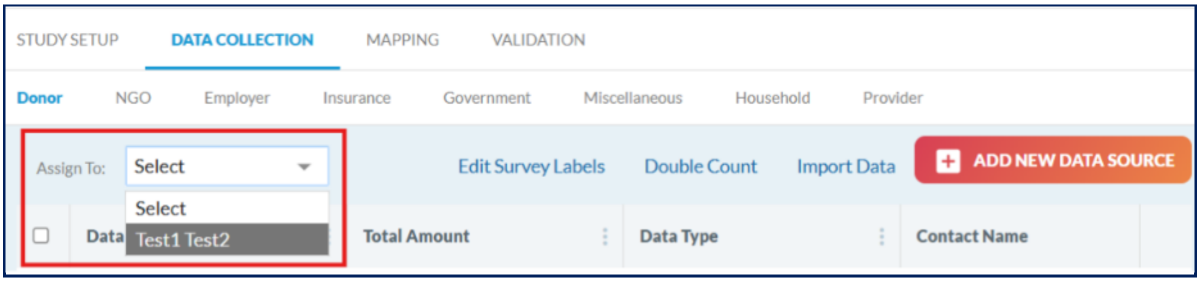


Fig. 5.25. Assigning a TM to a data source type

When a TM is assigned to a data source type, a success message is displayed. The TM can now work on the assigned data source type.

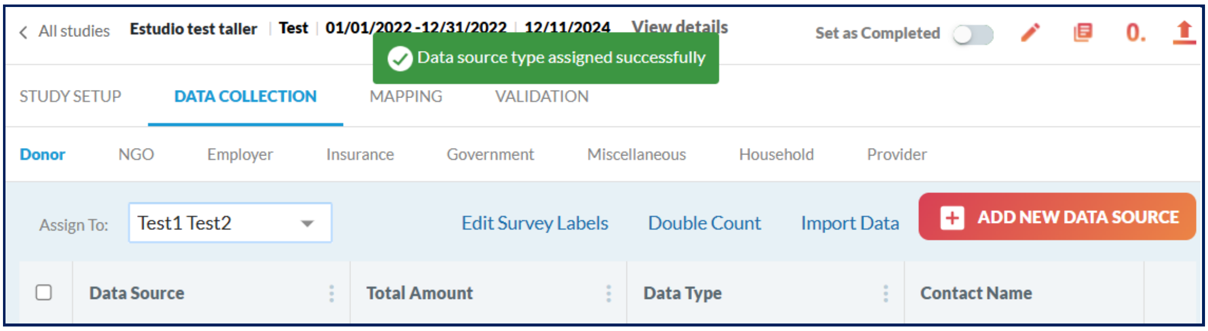


Fig. 5.26. Assigning a TM to a data source type: success

Note

- Only one TM can be assigned to each data source type. However, a TM can be assigned to several data source types.
- A TM can only access a data source type after they have been assigned to it.
- Once assigned to a data source type, a TM can add, edit, update and delete details, and access and work on mapping, for that data source type.
- A TM can view data source types they are not assigned to, but they cannot take any actions or make changes to them.
- If a TM has not been assigned to certain data source types, a message is shown to them and the TM cannot perform any operations for those data source types.

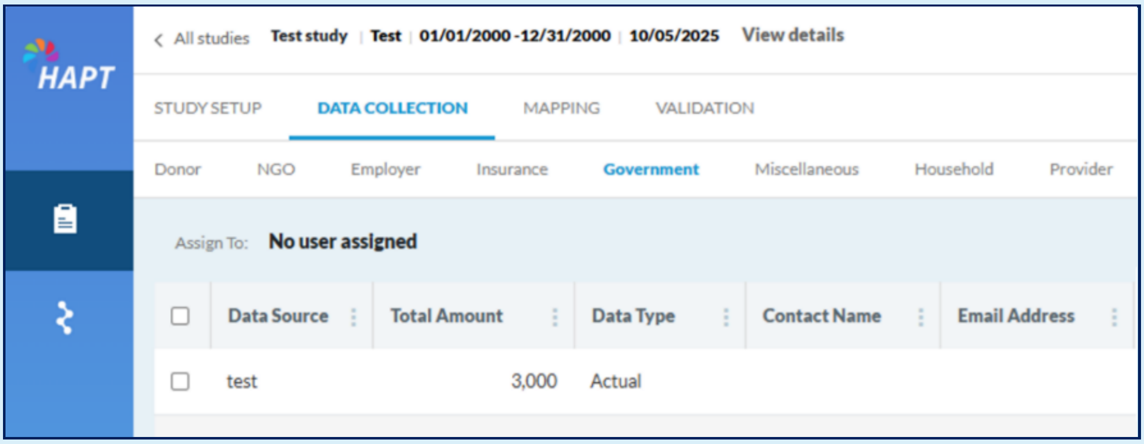


Fig. 5.27. No TM is assigned to the data source type

5.2 Survey data

Survey data consist of primary information collected from donors, NGOs, employers, providers and insurance companies. It facilitates the mapping of financial information with SHA categories. HAPT offers predefined survey templates with questions tailored to each data source type. The survey link can be sent to the contact persons at each data source type, who complete and submit their responses to HAPT. The survey questions for all data source types can be edited to be more suitable to the specific country situation. However, the core meaning of the question should not be changed, because the responses are directly linked to mapping codes.

Once a survey is submitted, the corresponding data source is shown differently in HAPT.

Note

- Each individual survey can be filled out for one year only. The same survey template can be filled out for different years.
- For a survey to be filled, the data collection method for that data source must be set to “Survey”.
- A TL can modify the survey labels for all data source types. A TM can only modify survey templates for data source types they are assigned to.
- To add a new data row manually, refer to Adding a data row.

5.2.1 Editing survey labels

Survey labels can be customized for each data source type to improve clarity and ensure better understanding by respondents.

Note

- Survey questions cannot be added or deleted.
- You can only edit the labels and tool tips for survey questions.
- Survey labels cannot be edited after the survey is shared with a data source.

To edit survey labels, follow these steps.

1. Click the data source type for which you want to edit the survey labels.
2. Click **Edit Survey Labels**.

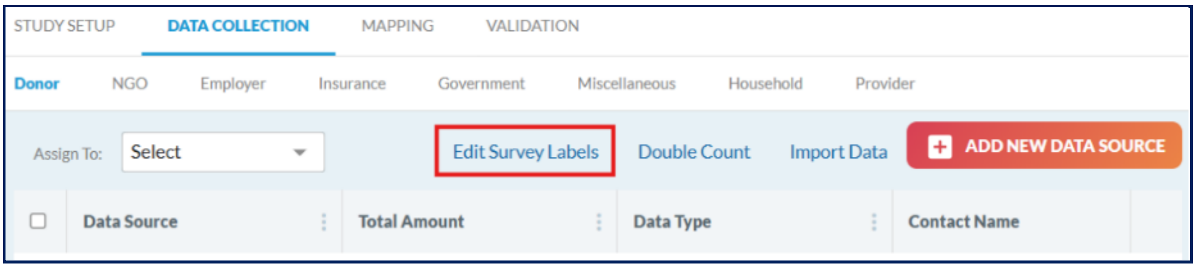


Fig. 5.28. Editing survey labels

The ***Edit Survey Labels*** page is displayed.

3. Edit details as required, and then click **SAVE**.[[

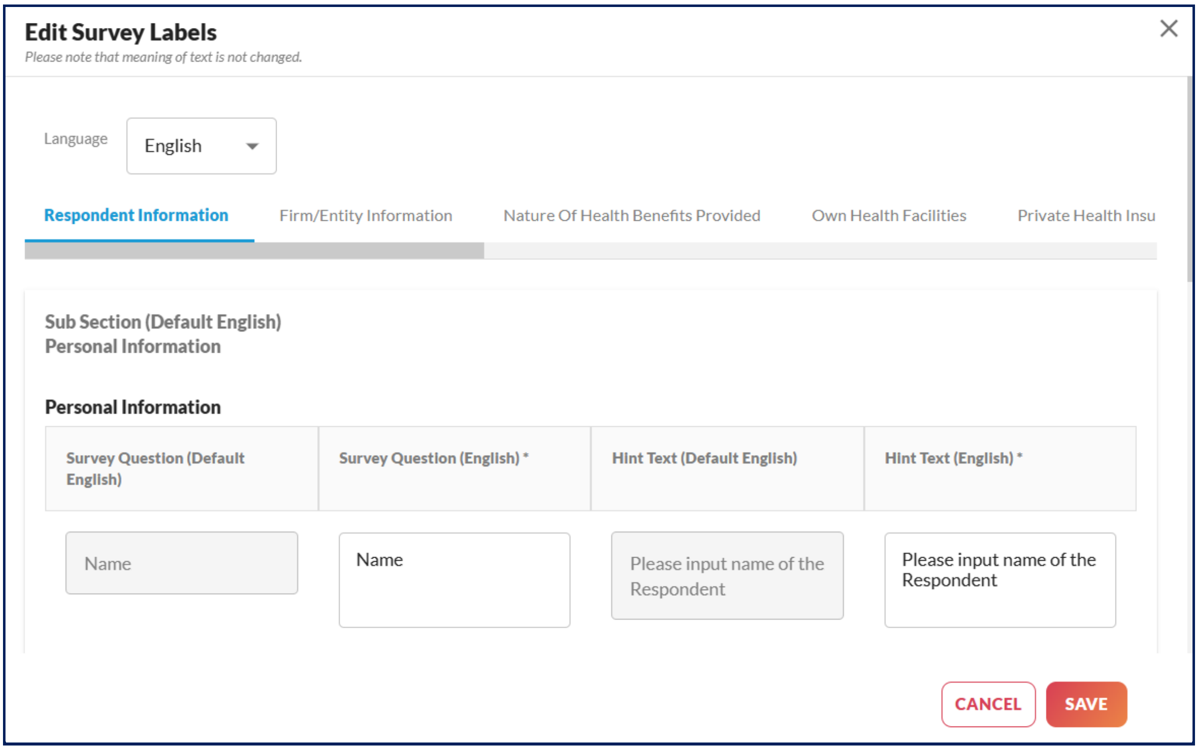


Fig. 5.29. The *Edit Survey Labels* page

5.2.2 Sharing a survey link with respondents

A survey link can only be shared for those data sources that have selected “Survey” as their data collection method. To share the survey link, follow these steps.

1. Click the ellipsis ( ) next to the related data sources.
2. Click **Share Survey Link**.

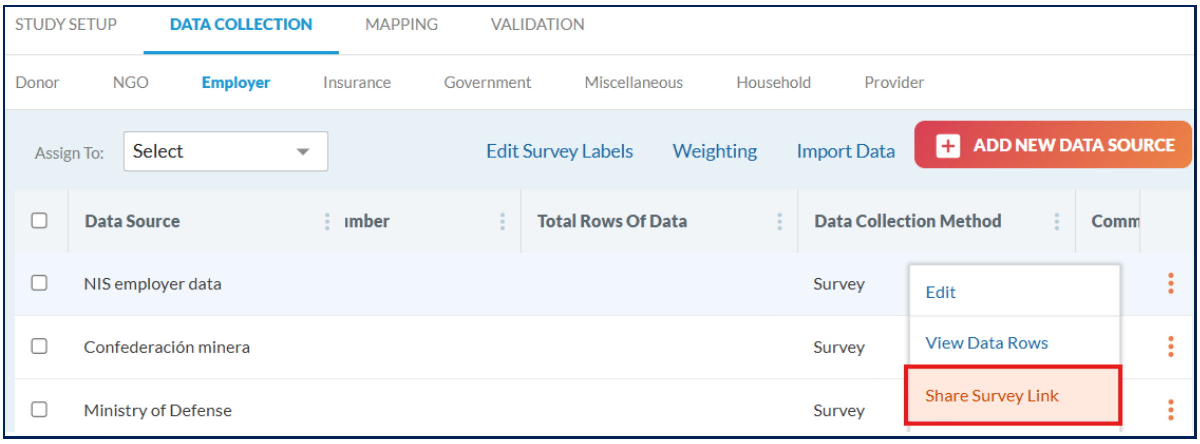


Fig. 5.30. Selecting Share Survey Link

The *Share Survey* screen is displayed.

3. Select the language from the drop-down list, and then click **SHARE**.

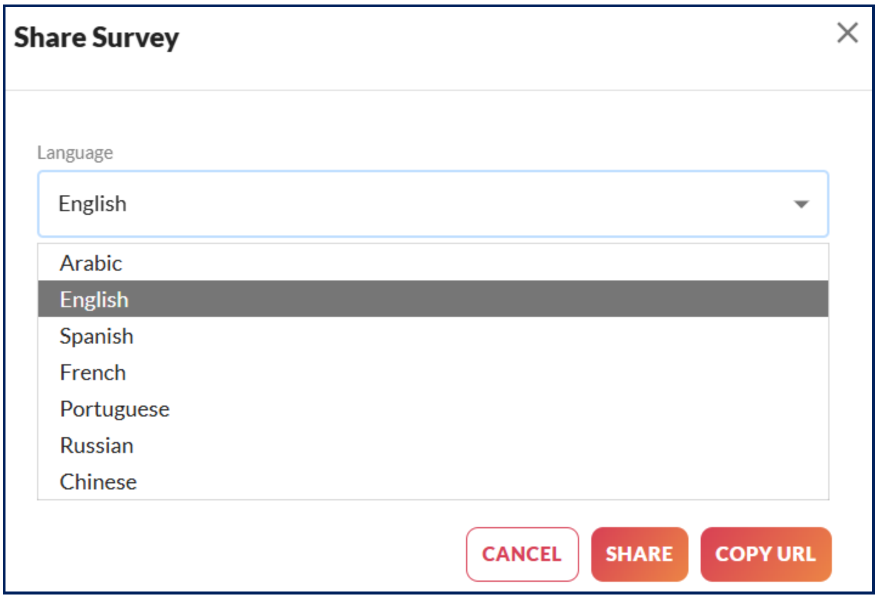


Fig. 5.31. Sharing a survey link

Note

- Default sharing survey language is English.
- Sharing a survey link opens the default mailer if any is set on your machine.
- You can also use the “COPY URL” feature to copy the link of the survey and paste it into an email.

5.2.3 Filling a survey yourself

You can fill the survey for a data source of a particular data source type to provide primary health data for a study. To fill a survey, follow these steps.

1. Click the ellipsis (⋮) corresponding to the data source whose survey is to be filled.
2. Click **Fill Survey**.

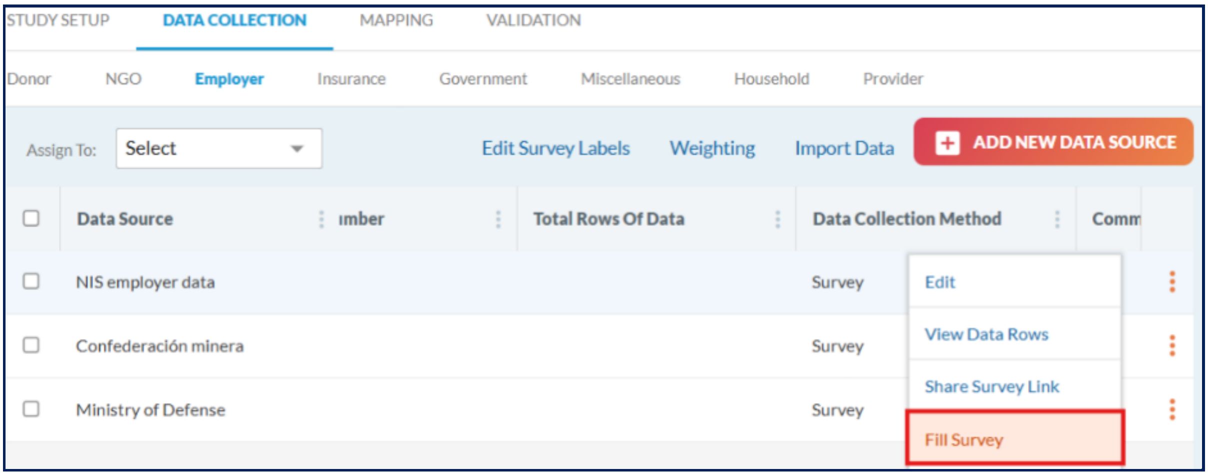


Fig. 5.32. Selecting Fill Survey

The Fill Survey screen is displayed.

3. Click **LET'S BEGIN**.

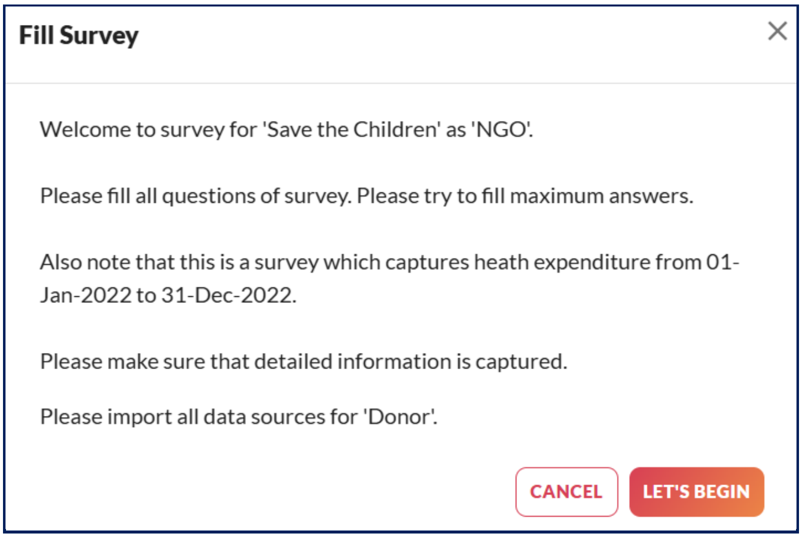


Fig. 5.33. The *Fill Survey* screen

4. Fill the required parameters, and then click **NEXT**.

Fig. 5.34. Filling a survey

Note

- Make sure you fill all mandatory survey questions (see Annex 1. List of metadata fields for all data source types by survey).
- The response automatically gets saved after clicking **NEXT** and also on clicking **SAVE**.
- For some questions, a hint is available as a tooltip.
- The steps used for filling, editing or viewing a survey are the same, whether you fill it yourself as TL/TM or if you send it to a respondent.
- You can still fill or edit a survey even after the response has been received. Fig. 5.35 shows the options available when a TL/TM and respondent have filled out the survey and it has been submitted. You can select which survey you want to fill, edit or view.

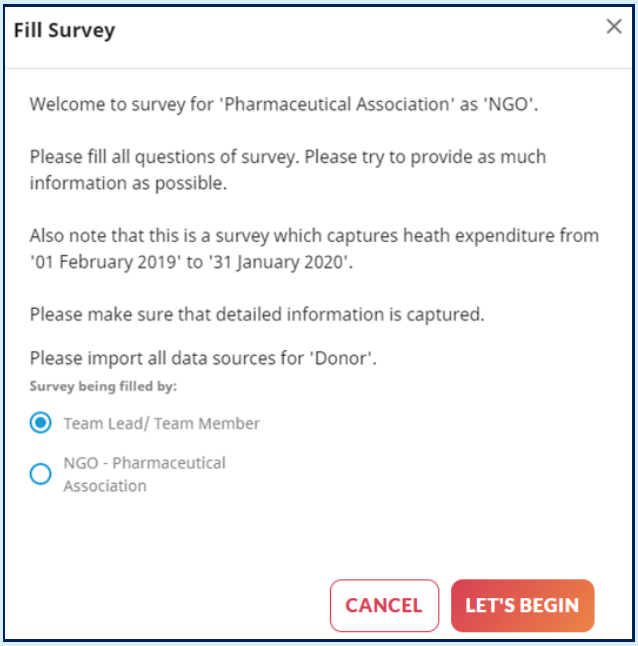


Fig. 5.35. Edit a filled survey

5. After filling the survey, click **FINISH**.

Fig. 5.36. Finishing the survey

The survey is saved, and a confirmation message is displayed.

Once a survey is submitted, the row of data source for which the survey is submitted is shaded in.

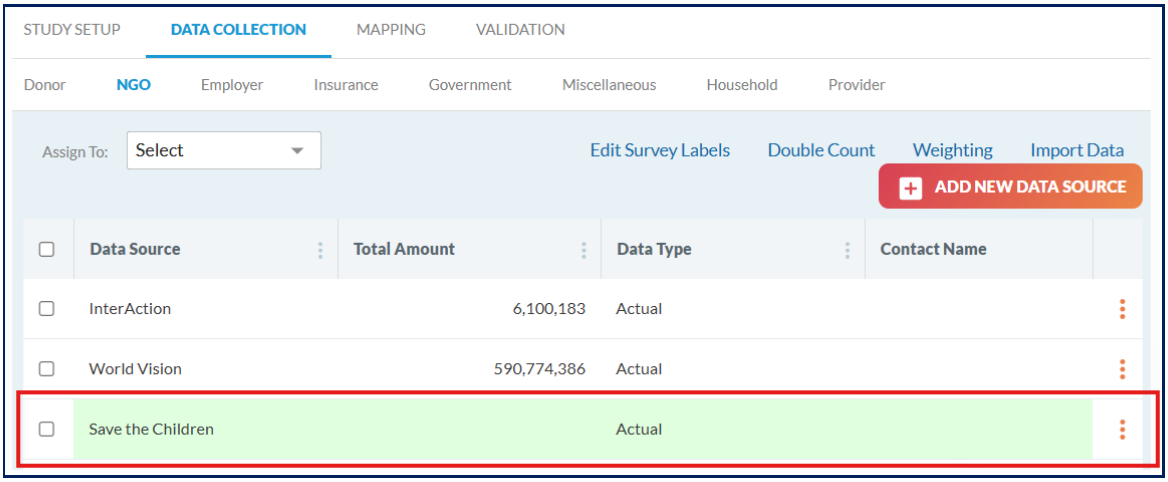


Fig. 5.37. Visual difference between a submitted and non-submitted survey

A notification is shown.

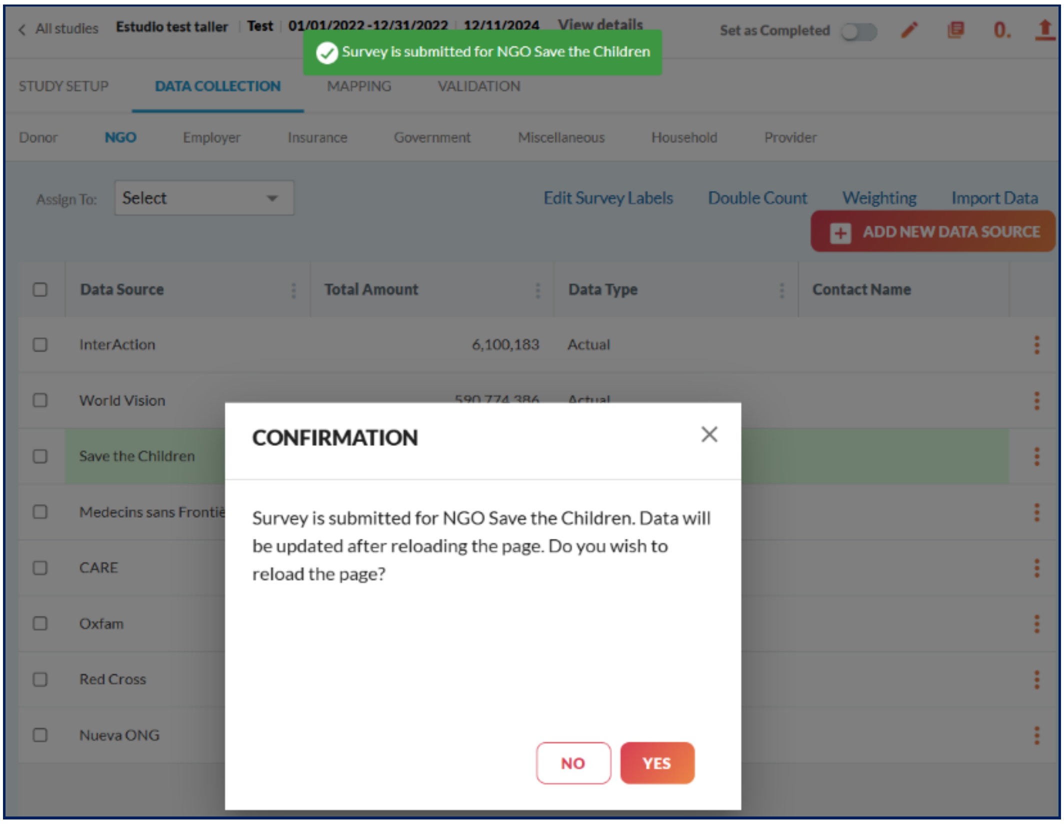


Fig. 5.38. Confirmation and request to refresh page after submitting a survey

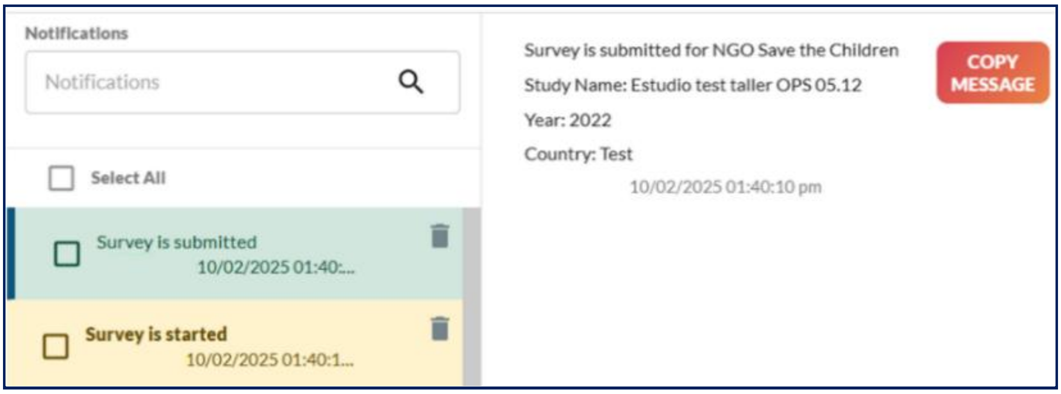


Fig. 5.39. Notification of submitted survey

5.2.4 For respondents completing a survey offline

This feature allows respondents to fill the survey offline. It is designed for when stable internet connections are unavailable. They can fill a survey offline and submit the response to the HA team. A survey link is shared to the respondent's registered email address. An internet connection is needed to download the survey. To fill the survey offline using a survey link, they can follow these steps.

1. They open the survey link sent to their registered email address.

Note

When a respondent opens the survey link, a message to download the survey is displayed.

2. To download the survey, they must click the download icon ( ) at the top-right corner on the survey page. The blank survey is automatically downloaded.

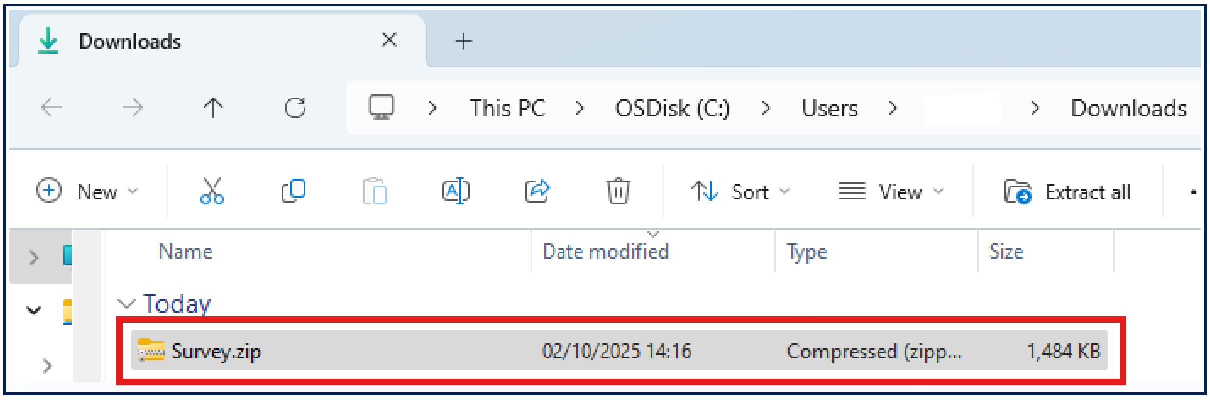


Fig. 5.40. An example of downloading a zip folder of the survey

3. Unzip the survey folder and open it. The files related to the survey are displayed.
4. Click on the file with the extension `.html` to open the survey. It will open in the default web browser.

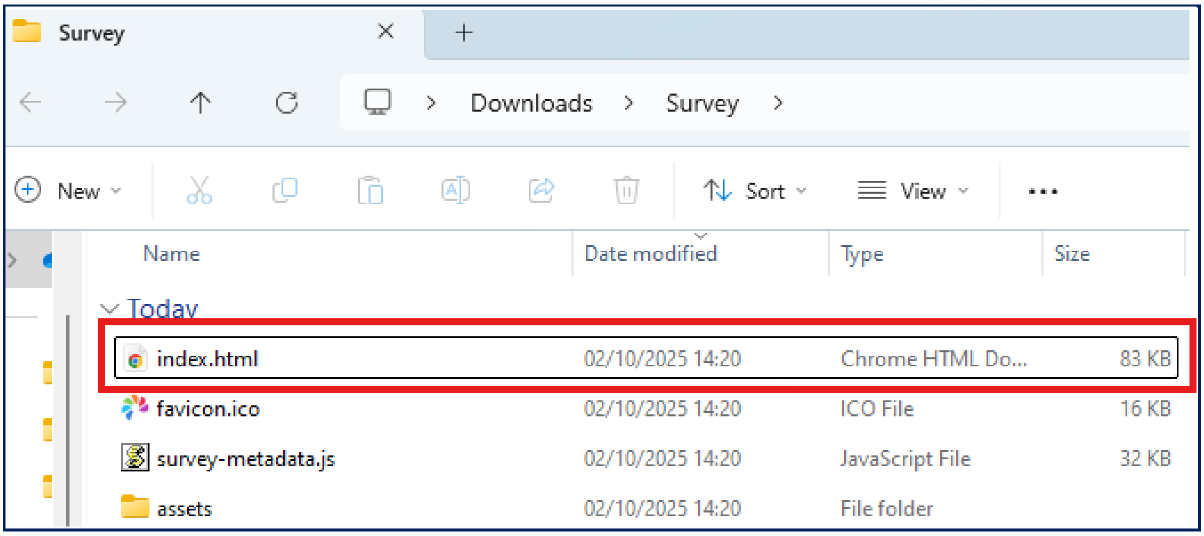


Fig. 5.41. Opening the survey folder

5. In the web browser, fill the answers in the survey and click **SAVE**.

A file with the answers is saved to the computer.

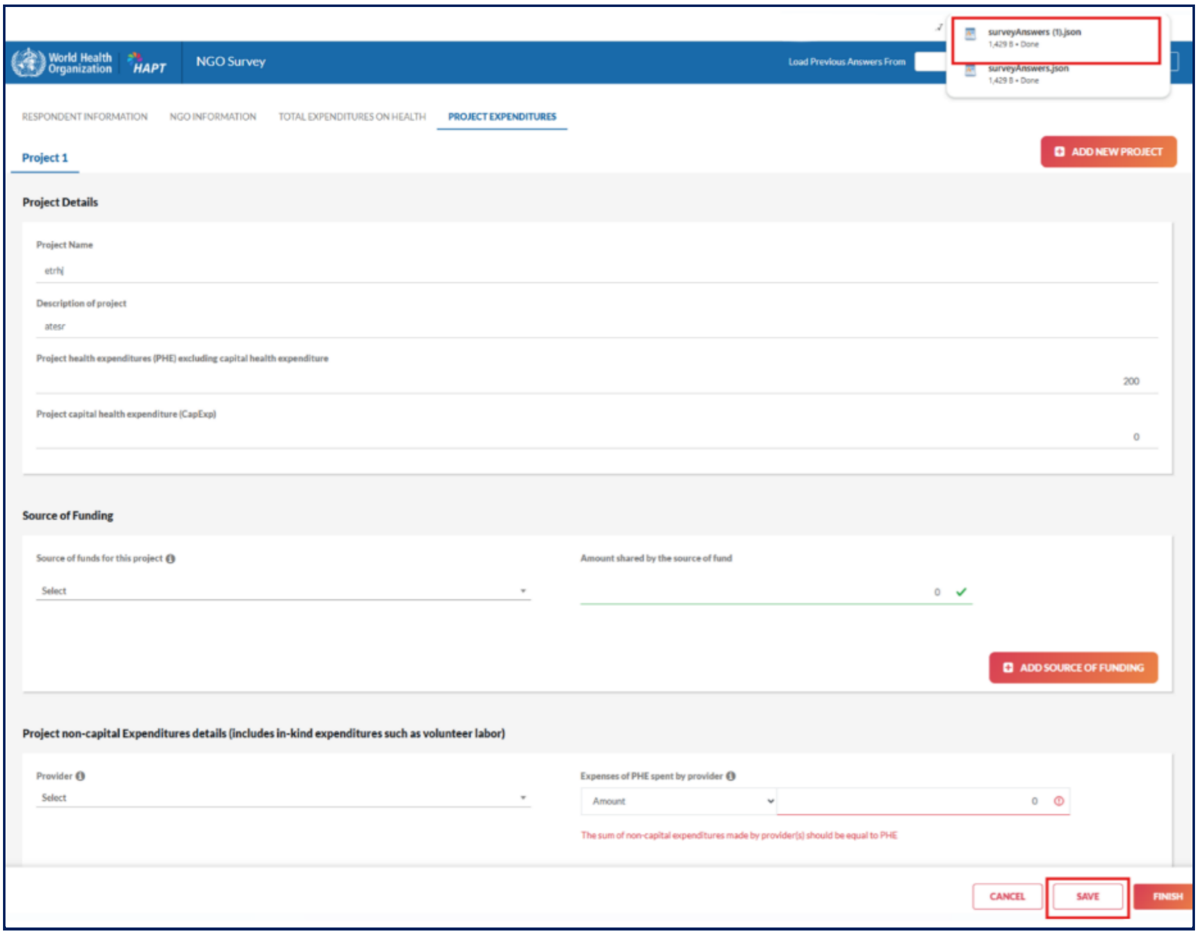


Fig. 5.42. Saving the answers

6. To reopen the survey, click on the `.html` file again.
7. To upload the answers from the file previously saved on the computer, click **CHOOSE FILE**.

Fig. 5.43. Uploading the completed survey

8. Select the file from the computer and click **LOAD SAVED ANSWERS**. Previously saved answers are loaded into the survey.

Fig. 5.44. Loading the saved answers

9. Repeat steps 5 to 7, if needed, to complete the survey before uploading.
10. Click **FINISH** once the survey is completed.

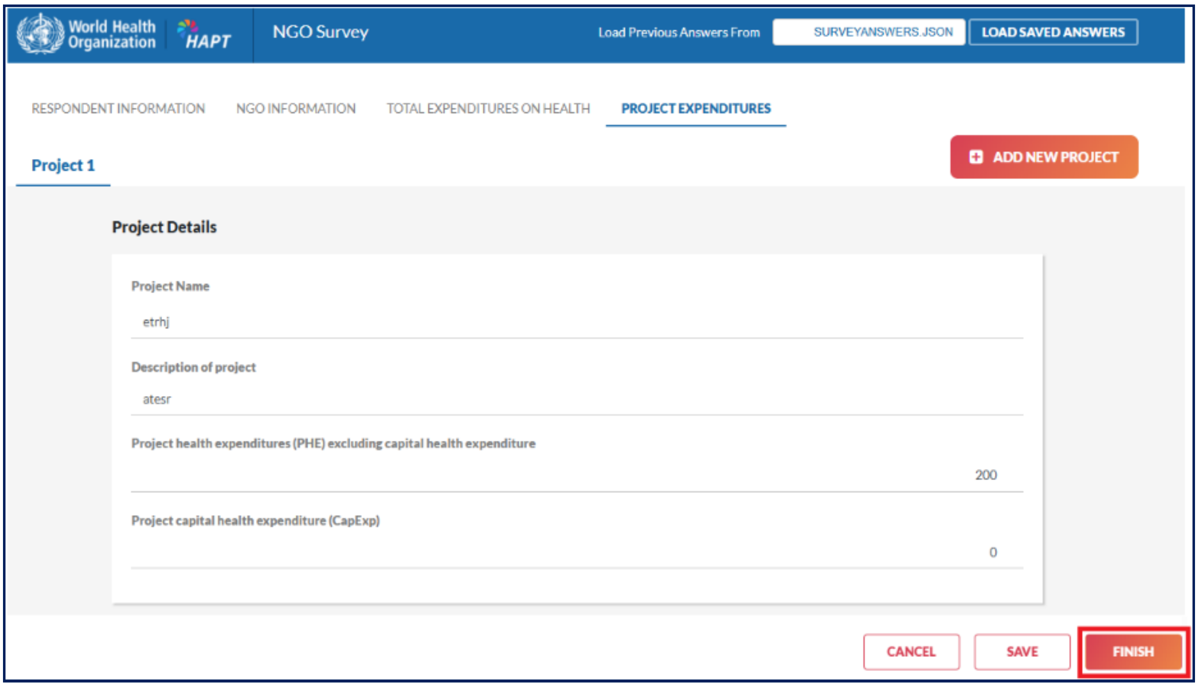


Fig. 5.45. Submitting a survey

A respondent can share the folder along with the survey answer file with any other user through email. That user would have to go through the same procedure for submitting answers.

Note

- An internet connection is necessary for downloading and submitting the survey.
- If the respondent does not have an internet connection while submitting the survey, an error message is displayed.

5.2.5 Finalizing a survey

Finalizing a survey is required for the creation of the data rows. A survey is finalized only after successful submission of the survey response. Whenever the survey is edited, it must be finalized, to ensure the edits are reflected in the calculation of data rows.

To finalize a survey, follow these steps.

1. On the **DATA COLLECTION** module, select the data source type for which you want to finalize the survey.

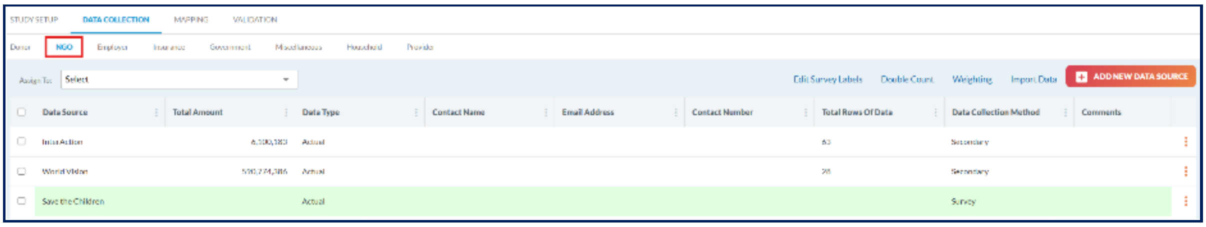


Fig. 5.46. Selecting the data source type

2. Click the ellipsis (⋮) corresponding to the data source whose survey is to be finalized.
3. Click **Finalize Survey**.

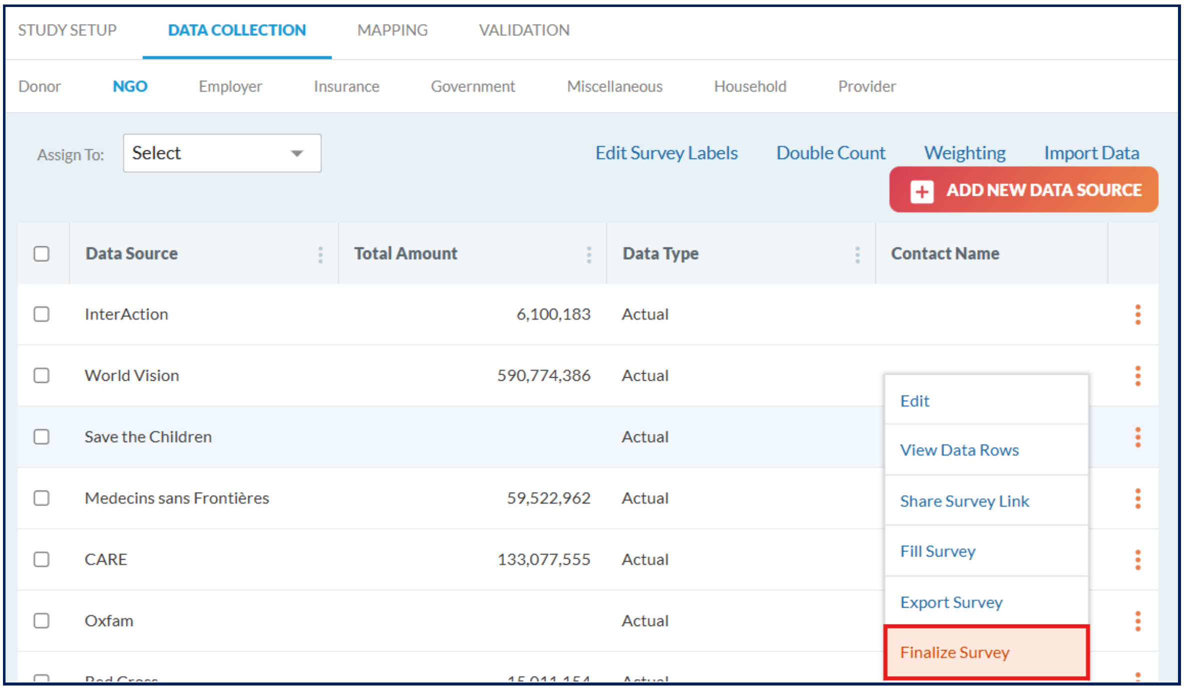


Fig. 5.47. Finalizing a survey

The ***Finalize Survey*** screen is displayed.

4. Click **FINALIZE**.

The survey is finalized, and a confirmation message is displayed.

Repeat the above process every time you edit the survey.

Note

- You can finalize a survey of your own responses.
- You can finalize a survey received from another user. Fig. 5.47 shows the options that are shown when both a TL/TM and the respondent from data source have submitted the survey. Select which survey you want to finalize.

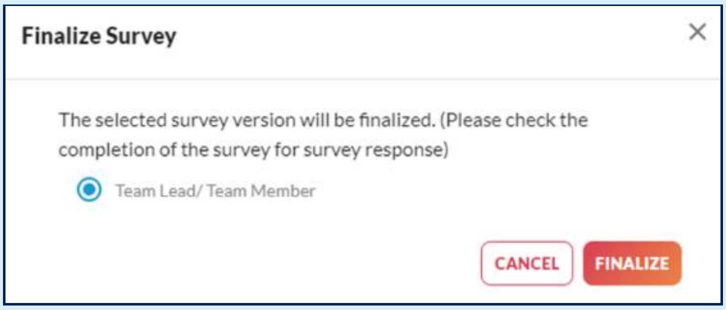


Fig. 5.48. Selecting the survey to finalize

- You can view or edit the survey even after finalizing the survey by following same steps as when filling a survey.

5.2.6 Export a survey for printing

You can export a filled or an empty survey for printing. All the survey questions and possible answers are exported as well.

To export a survey, follow these steps.

1. On the **DATA COLLECTION** module, select the data source type for which you want to export the survey.

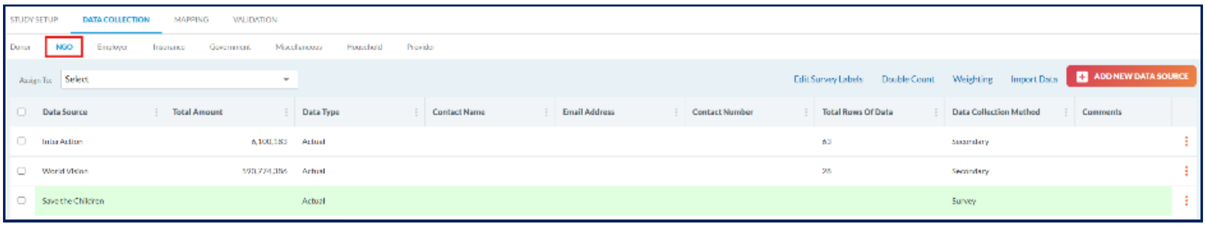


Fig. 5.49. Selecting the data source type

2. Click the ellipsis (⋮) corresponding to the data source whose survey is to be exported.

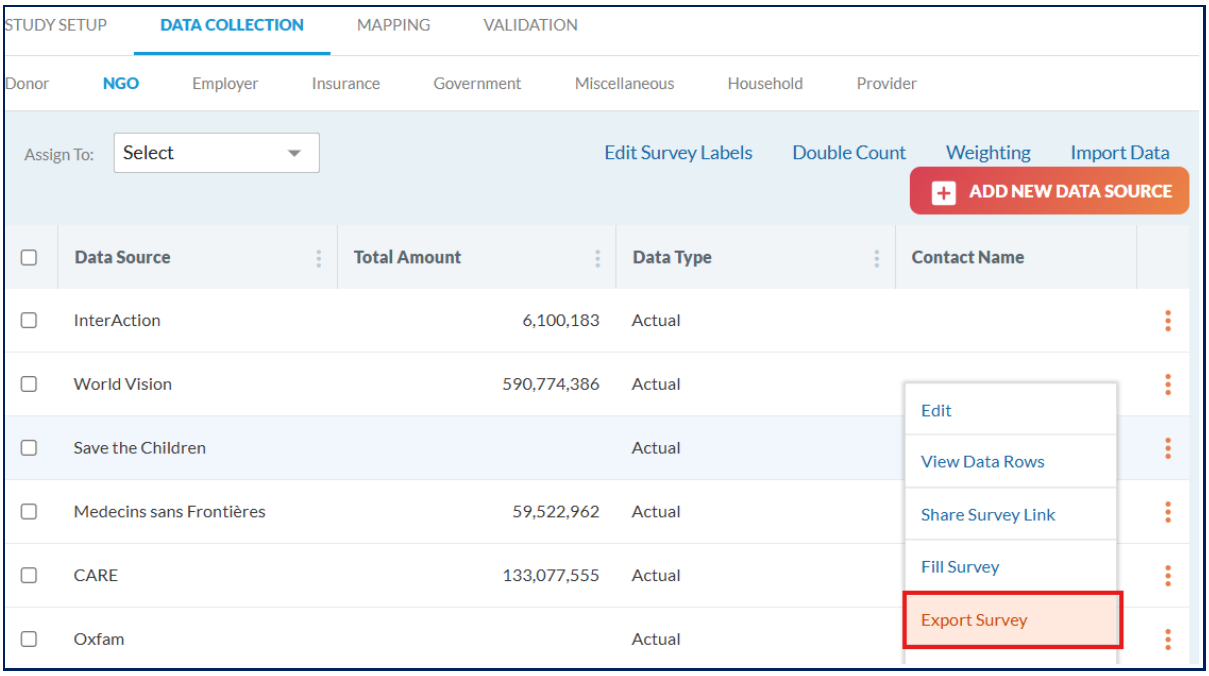


Fig. 5.50. Exporting a survey

3. Click **Export Survey**.

The *Export Survey* screen is displayed.

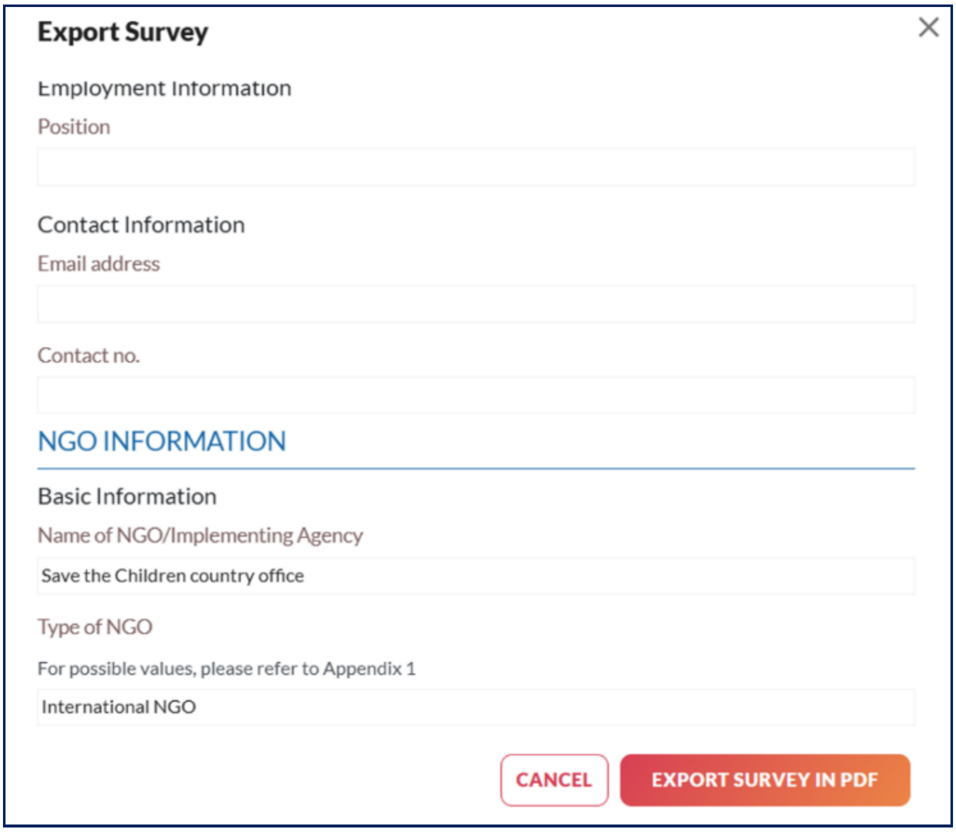


Fig. 5.51. The *Export Survey* screen

4. Click **EXPORT SURVEY IN PDF**.

The survey is exported, and saved in the default downloads folder.

If the survey is filled, all the questions and its filled answers are exported in the PDF. If the survey does not have any filled answers or is an empty survey, then all the questions are exported in the PDF.

Note

- You can export a survey of your own responses.
- You can export a survey received from another user. Fig. 5.52 shows the options available when both a TL/TM and the data source have submitted the survey. You can select which survey you want to export.

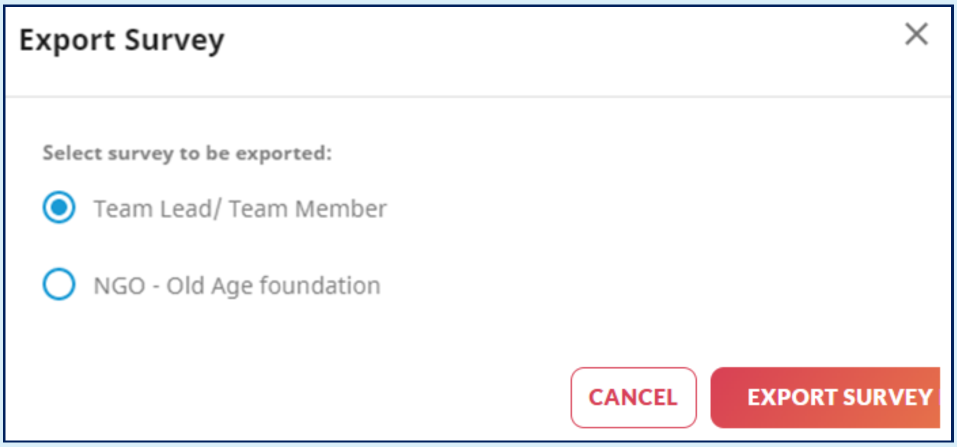


Fig. 5.52. Selecting a survey to export

5.3 Manual data entry

There are various ways to collect data. One of the ways is to manually create a data row. Rows within the data sources are referred to as data rows. Data rows can be created for the following actors:

- Government
- Miscellaneous
- Household
- Donor
- NGO
- Employer
- Insurance
- Provider.

The purpose of creating data rows is to update and edit study data manually. You can create a bulk amount of data rows and update a study manually. Up to 100 data rows can be added manually at one time for the selected data source.

5.3.1 Adding a data row

Data rows can be added for all the data source types. When expenditures are known, you can directly add health account expenditure instead of having to go via surveys or import of Excel files.

To add data row for government, miscellaneous, household, donor, NGO, employer, insurance and provider, follow these steps.

1. To open the study for which you want to add the new data row, refer to Opening an existing study, steps 1 to 4.
2. In the **STUDY** section, chose the **DATA COLLECTION** module.
3. Chose the data source type (Government, Miscellaneous, Household, Donor, NGO, Employer, Insurance or Provider) to which you want to add a data row.
4. Click the ellipsis ( ) of the data source and click **View Data Rows**.

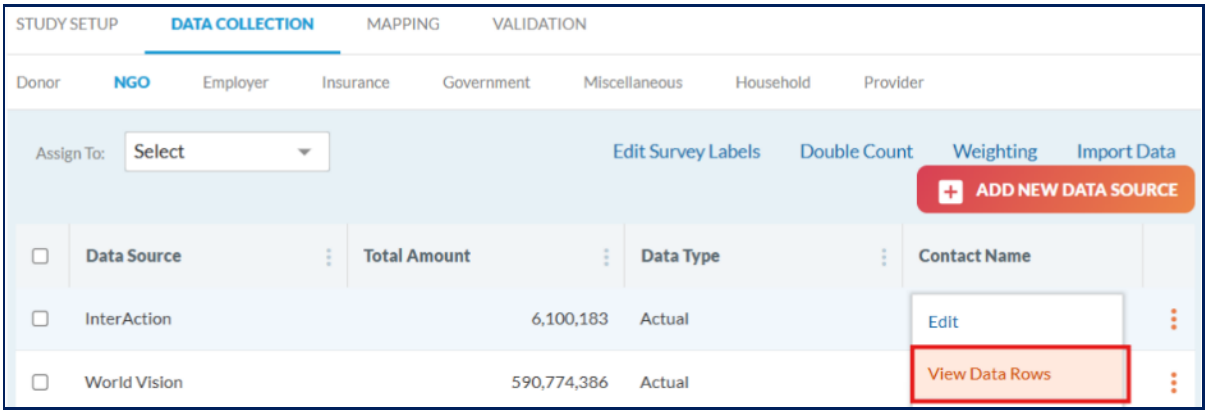


Fig. 5.53. Viewing data rows before adding a row

5. Click **ADD NEW DATA ROW**.

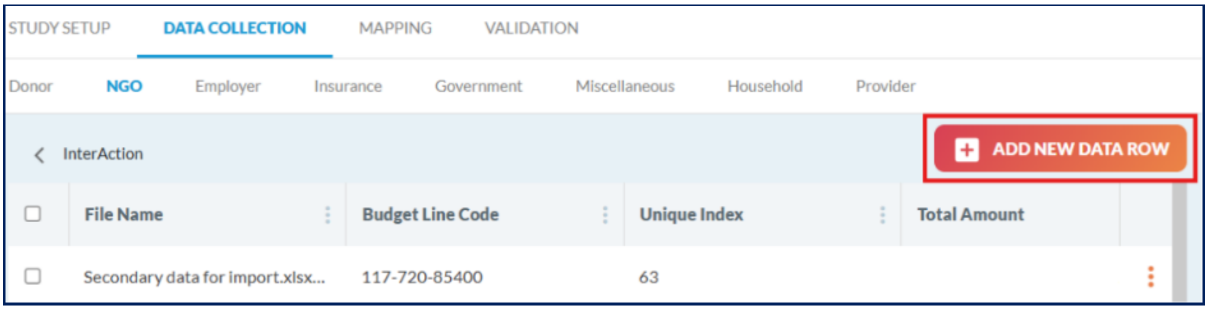


Fig. 5.54. Adding a new data row

The ***Add New Data Row*** form is displayed.

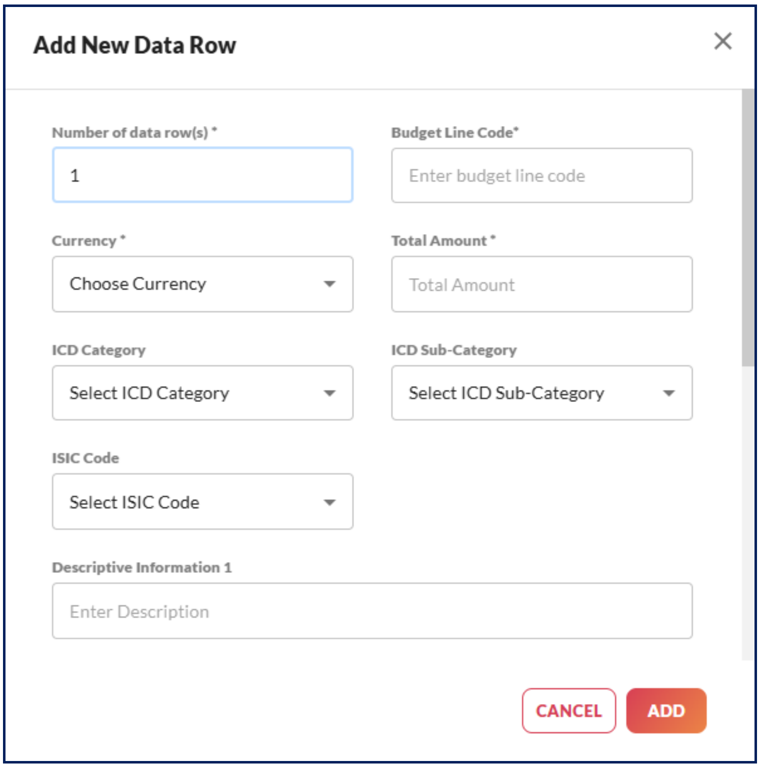


Fig. 5.55. The *Add New Data Row* form (Government data source)

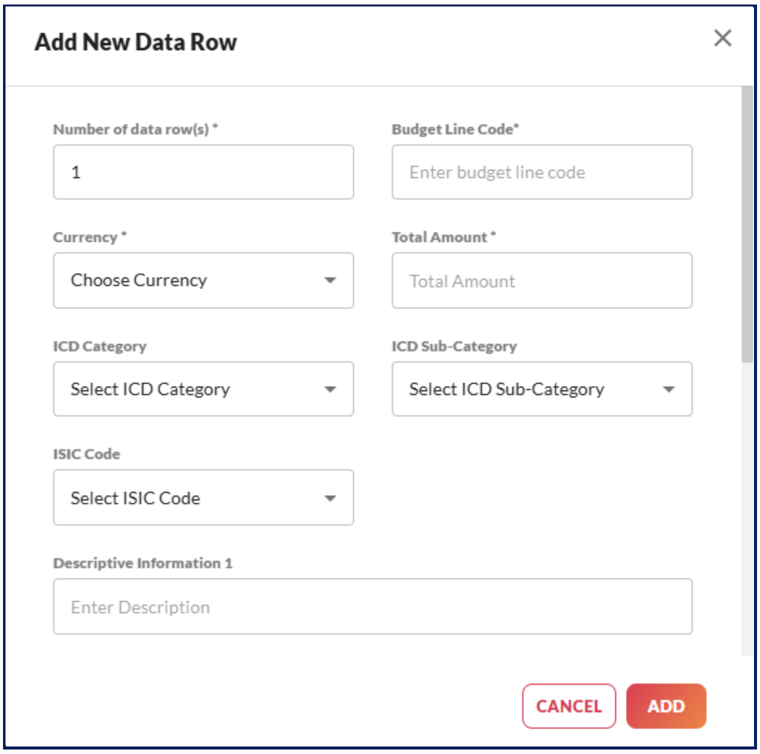


Fig. 5.56. The *Add New Data Row* form (Miscellaneous data source)

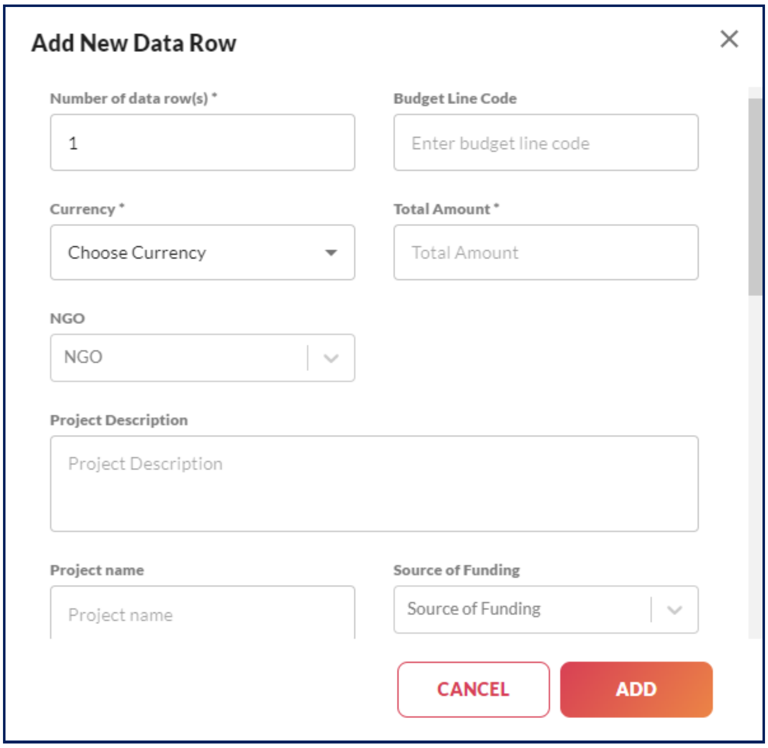


Fig. 5.57. The *Add New Data Row* form (Donor data source)

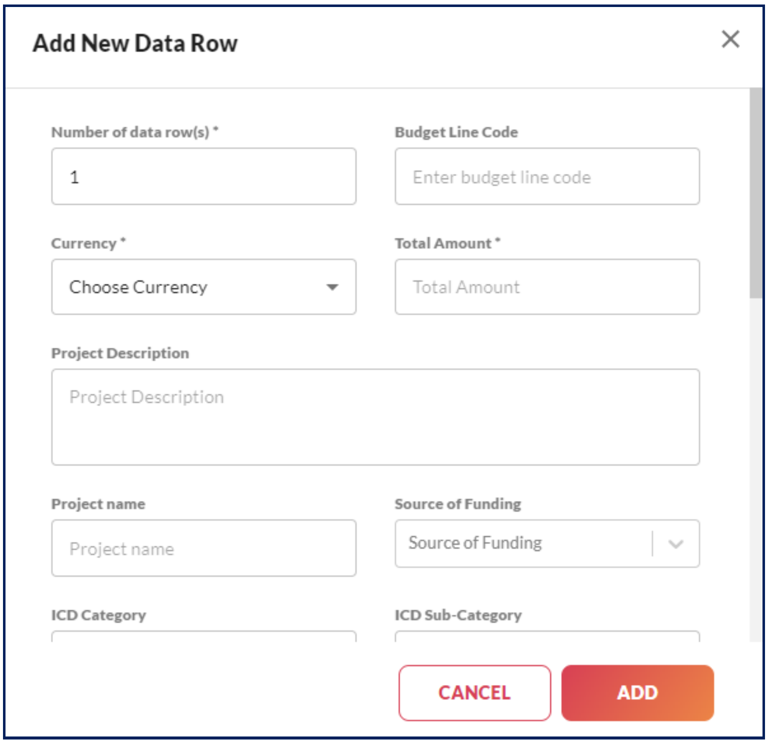


Fig. 5.58. The *Add New Data Row* form (NGO data source)

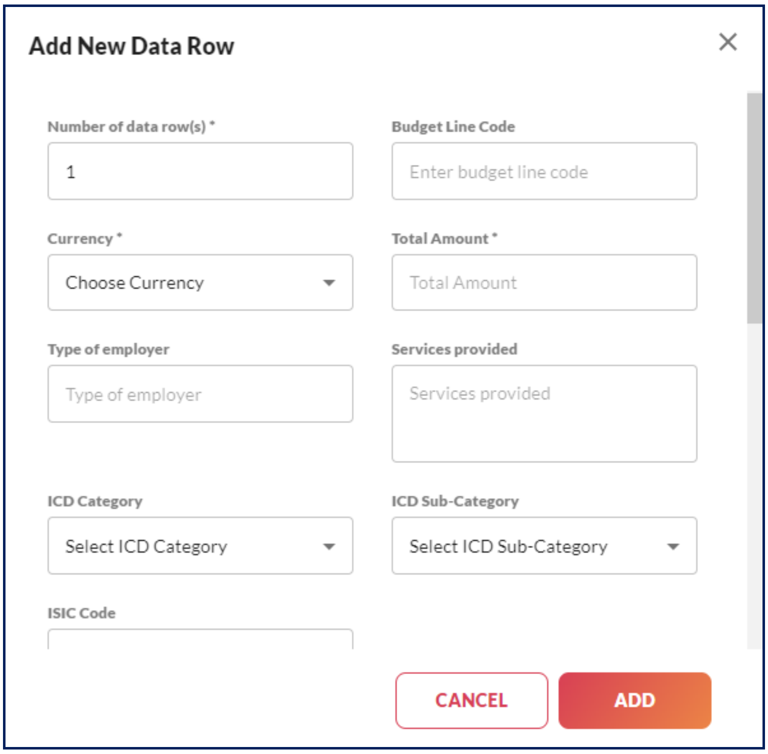


Fig. 5.59. The *Add New Data Row* form (Employer data source)

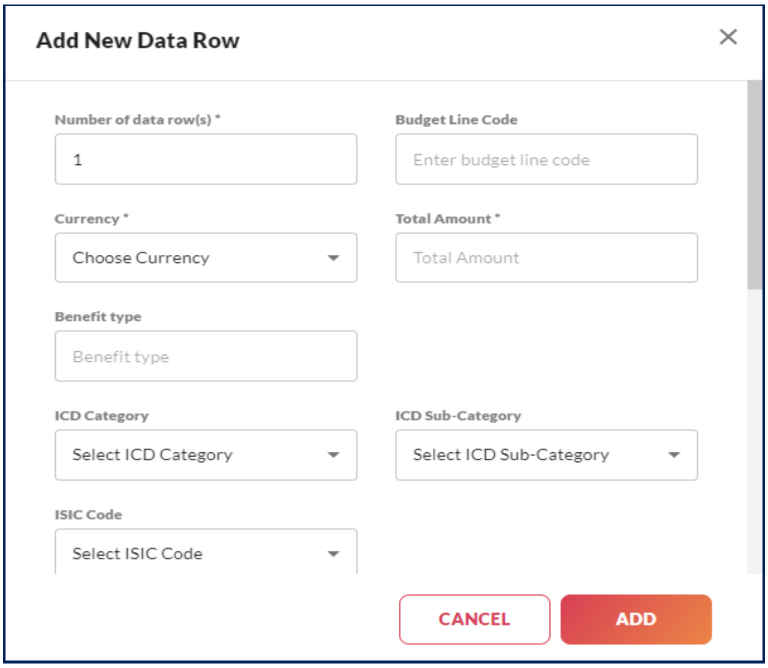


Fig. 5.60. The *Add New Data Row* form (Insurance data source)

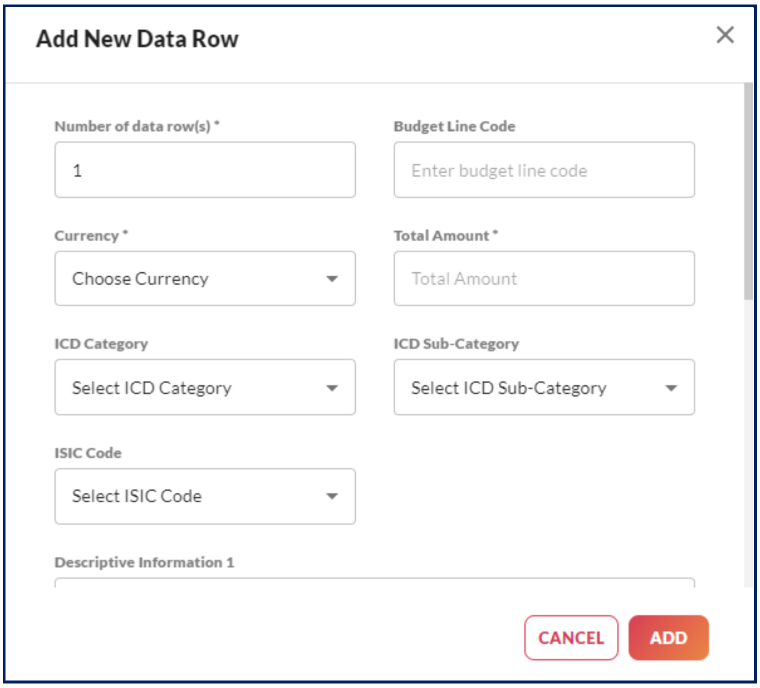


Fig. 5.61. The *Add New Data Row* form (Household data source)

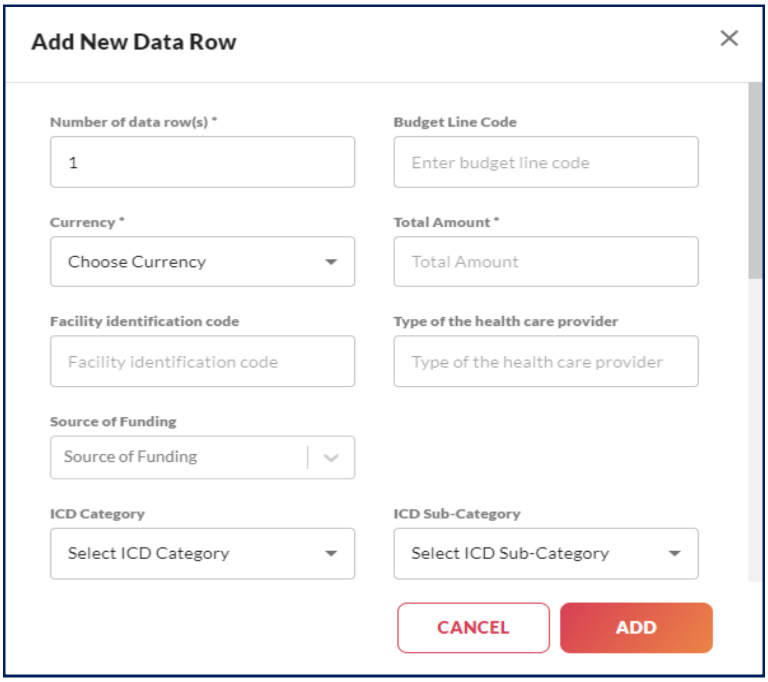


Fig. 5.62. The *Add New Data Row* form (Provider data source)

6. Enter the data row details in their respective fields, and then click **ADD**.

If the new data row is added successfully, the “File Name” column will list it as “Manual Entry”.

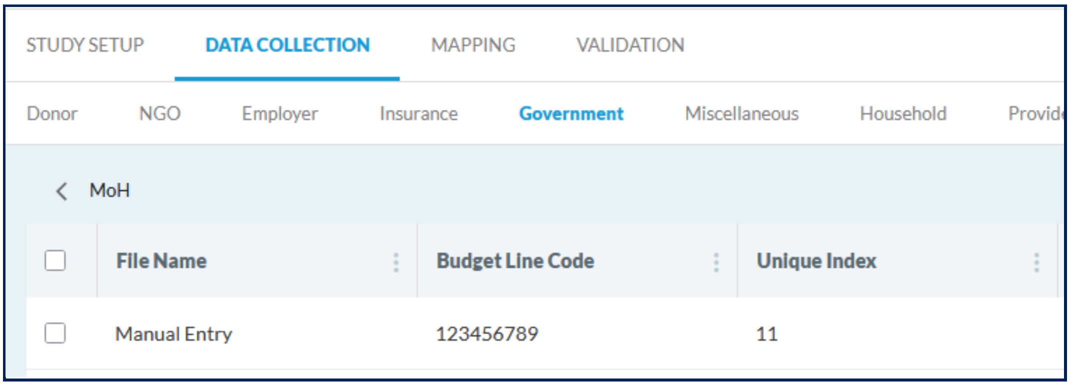


Fig. 5.63. An example manually entered data row

> **Note**
>
> - Default number of data rows is 1. You can add several data rows that have the same expenditure and other details at once.
> - You can add a maximum of 100 rows at one time when creating data rows manually.
> - Fields available on the form for adding new data rows depends on the type of user you are (TL, TM, PO).
> - While manually adding data rows, ICD and its subcategories can be added or edited for all the data source types.

Tables from Table 5.4 to Table 5.9 show the fields present on the ***Add New Data Row*** form.

Table 5.4. Description of the fields on the *Add New Data Row* form (Government, Miscellaneous and Household)

Field name	Description
Number of data row(s)	Allows you to enter the number of data rows you wish to add.
Budget Line Code	Allows you to enter the budget line code.
Total Amount	Allows you to enter the amount of expenditure on a specific disease.
Currency	Allows you to select the currency for a data row.
ICD Category	Allows you to select the ICD category.
ICD Sub-Category	Allows you to select an ICD subcategory. This and previous features are needed to automatically connect (crosswalk) ICD codes to ICHA-DIS codes. To view the crosswalk from ICD-10 codes to DIS mapping, refer to the file “ICD-10 to DIS mapping” in **HELP** > Document.

Field name	Description
ISIC Code	Allows you to select an ISIC Code, if used in the data. ISIC stands for International Standard Industrial Classification of All Economic Activities. It is an international reference classification of economic activities. Similar to ICD mapping, ISIC mapping minimizes your work in automatically implementing the crosswalk from ISIC codes to health care providers (ICHA-HP) codes. To see the crosswalk, refer to the file 'ISIC to HP mapping' in **HELP** > Document.
Comments	Allows you to add comments about newly added data row.
Descriptive Infor-mation 1–5	Allows you to add descriptive information, which may can help to map the data and give additional information for that. There are five descriptive information fields available.

Along with the above fields, the ***Add New Data Row*** forms for the Donor, NGO, Employer, Insurance and Provider data sources also have the fields shown in Tables 21–25.

Table 5.5. Description of the fields on the *Add New Data Row* form (Donor data source)

Field name	Description
NGO	Allows you to select the NGO implementing the project.
Project Description	Allows you to enter a project description.
Project name	Allows you to enter the project name.
Source of Funding	Allows you to enter a source of funding.

Table 5.6. Description of the fields on the *Add New Data Row* form (NGO data source)

Field name	Description
Project Description	Allows you to enter a project description.
Project name	Allows you to enter a project name.
Source of Funding	Allows you to enter a source of funding (or select one Donor).

Table 5.7. Description of the fields on the *Add New Data Row* form (Employer data source)

Field name	Description
Type of Employer	Allows you to enter the employer type.
Services provided	Allows you to enter the service provided.

Table 5.8. Description of the fields on the *Add New Data Row* form (Insurance data source)

Field name	Description
Benefit type	Allows you to enter the benefit type.

Table 5.9. Description of the fields on the *Add New Data Row* form (Provider data source)

Field name	Description
Facility identification code	Allows you to enter the facility identification code.
Type of the health care provider	Allows you to enter the type of health care provider.
Source of Funding	Allows you to enter a source of funding (or select one Donor).

5.3.2 Editing a data row

This feature allows you to edit study data rows manually. To edit a data row, follow these steps.

1. Click the ellipsis (⋮) corresponding to the data source you want to edit.
2. Click **View Data Rows**.

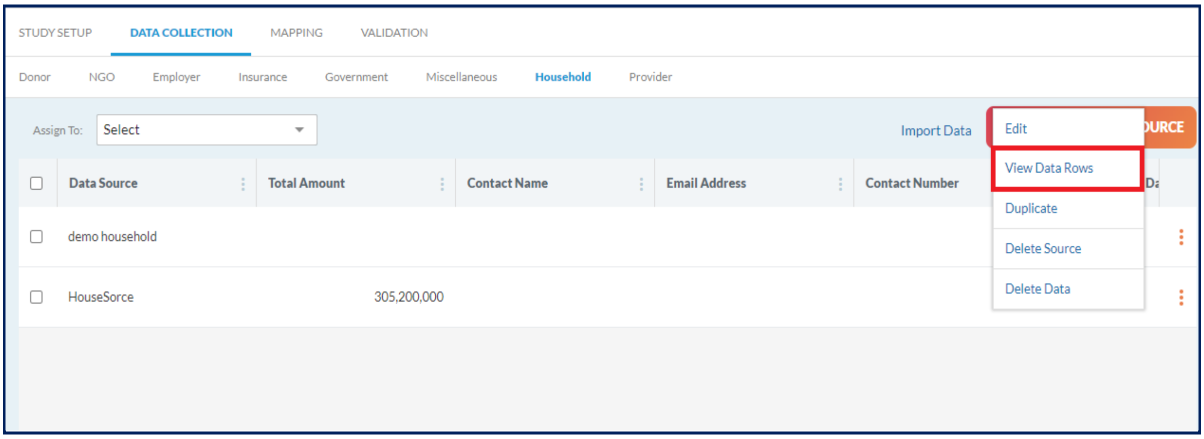


Fig. 5.64. Viewing a data row

The new screen displays the data rows for the selected data source.

3. Click the ellipsis (⁝) corresponding to the data row you want to edit.
4. Click **Edit**.

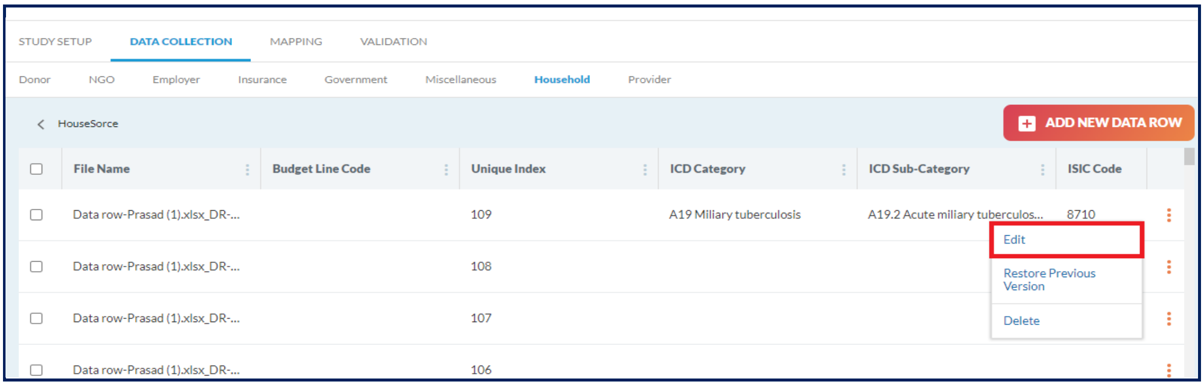


Fig. 5.65. Editing a data row

The *Edit Data Row* form is displayed.

5. Edit details as required, and then click **SAVE**.

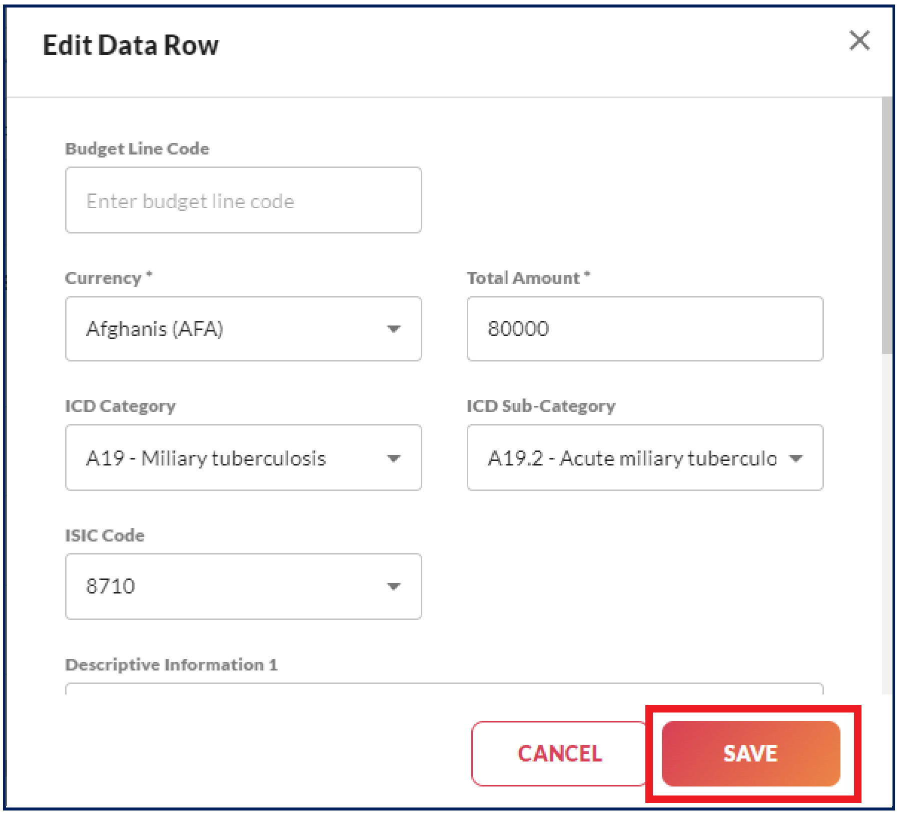


Fig. 5.66. The *Edit data row* form

The data row is updated successfully.

5.3.3 Viewing a data row

This feature allows you to view details of study data rows. To view a data row, follow these steps.

1. Click the ellipsis (⋮) corresponding to the data source for which you want to view the data row.
2. Click **View Data Rows**.

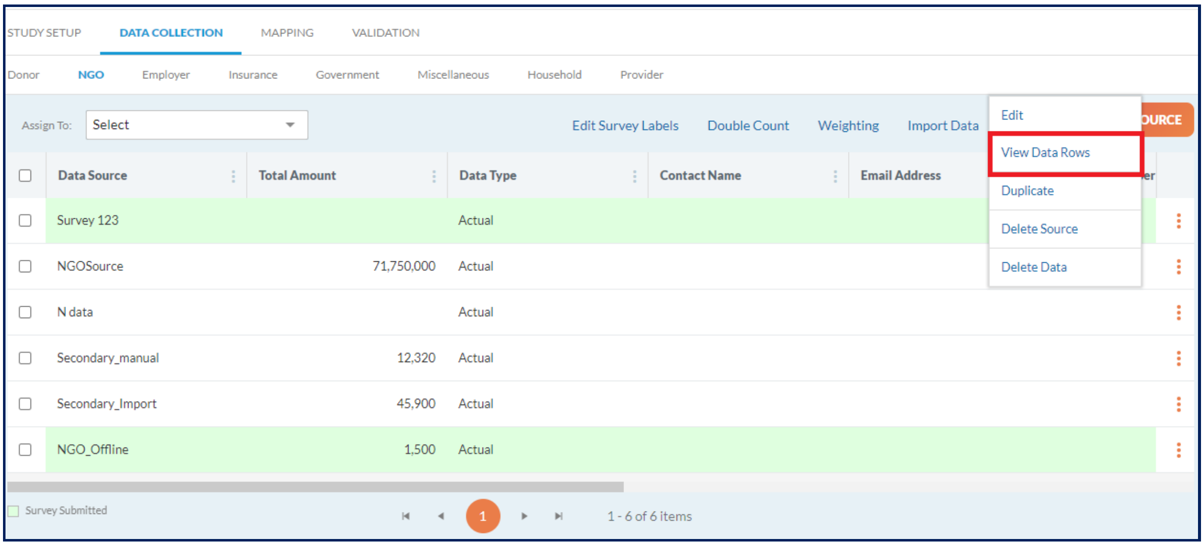


Fig. 5.67. Viewing a data row

Data rows for that data source are displayed.

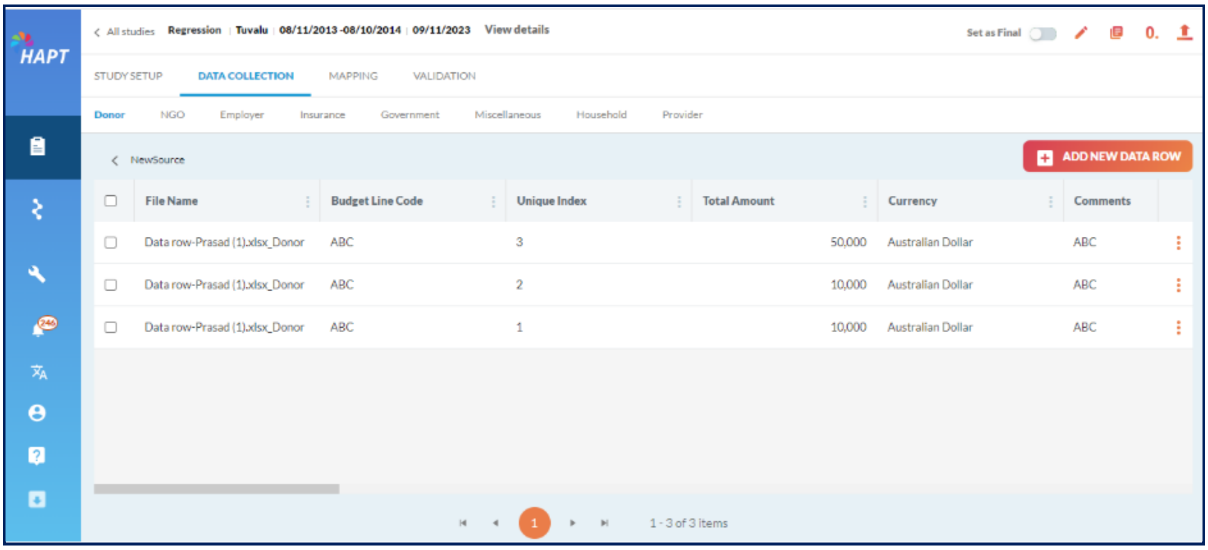


Fig. 5.68. The data row viewing page

Note

The “File n\Name” field will display the source of each data row. If the data are from a survey, the field will show “Survey”. If the data are secondary (imported) data, the field will show the source file name and sheet name. If the data are added manually, the field will show “Manual Entry“.

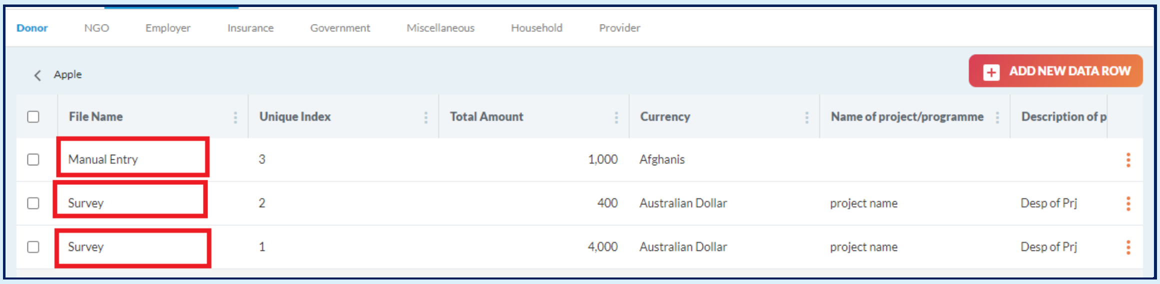


Fig. 5.69. “File Name” field for survey and manually added data

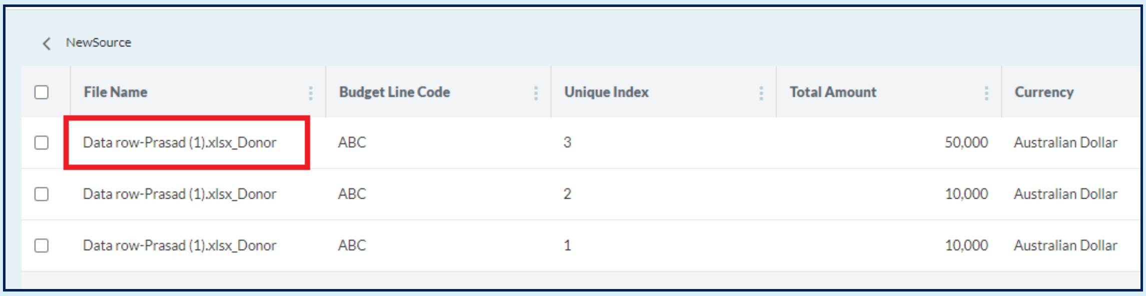


Fig. 5.70. “File name” field for secondary data

- Data row fields differ depending on the data source.

5.3.4 Deleting a data row

This feature allows you to delete data rows. To delete a data row, follow these steps.

1. Click the ellipsis ( ) corresponding to the data row you want to delete.
2. Click **Delete**.

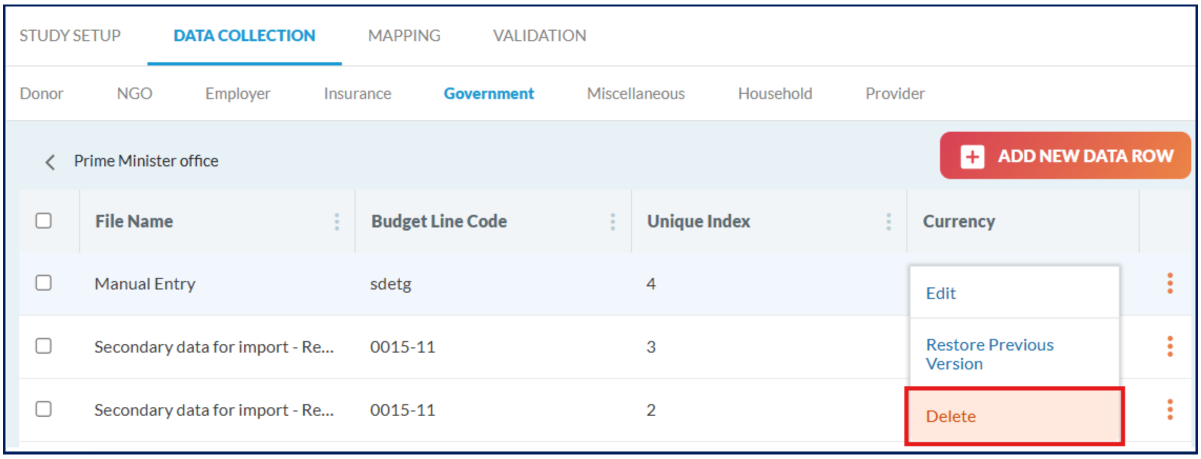


Fig. 5.71. Deleting a data row

A message asking you to confirm your action is displayed.

3. To confirm, click **YES**.

The data row is deleted, and a confirmation message is displayed.

4. When the data row is deleted, you will receive a confirmation message, and the page will be automatically refreshed.

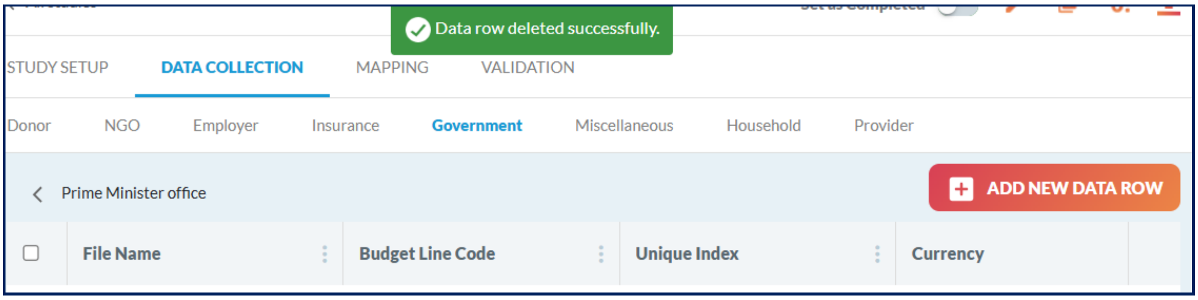


Fig. 5.72. Deleting a data row: success

Notifications are shown when data row deletion starts and finishes.

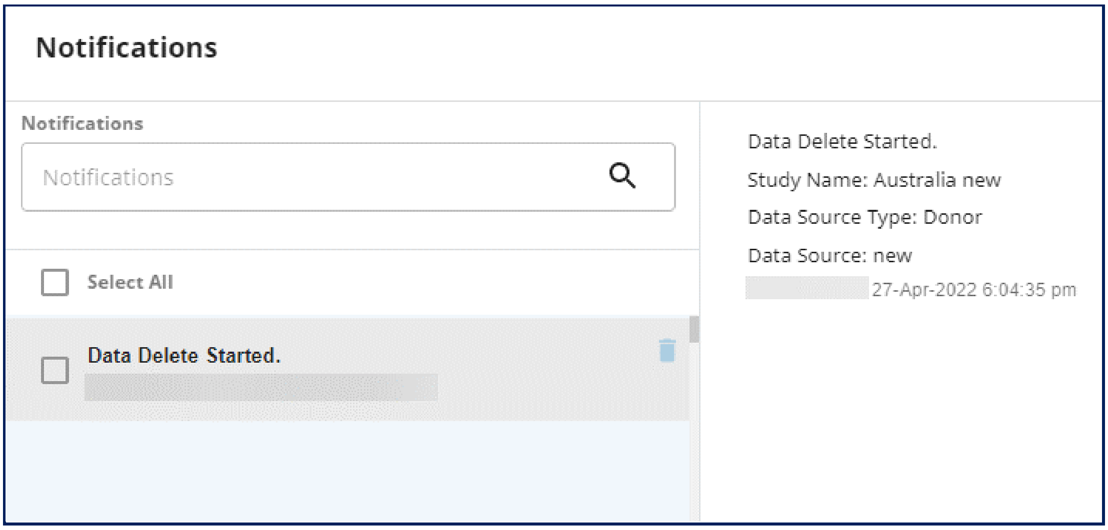


Fig. 5.73. Notification when data row deletion has started

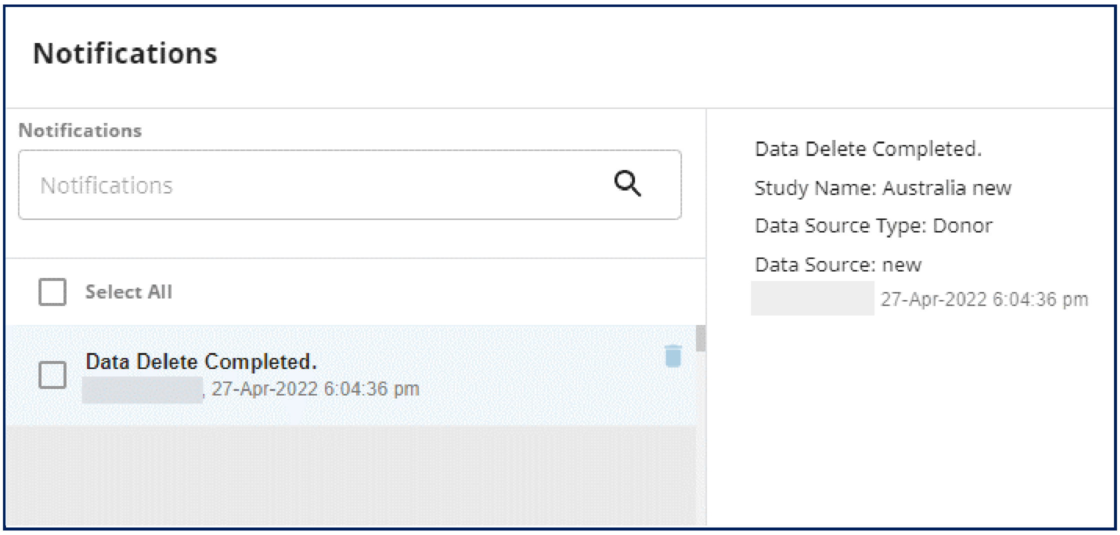


Fig. 5.74. Notification when data row deletion has completed

Both the “Started” and “Completed” notifications contain details about the deleted data row, including the data source name and type, and the study the data row came from. The notifications also show the name of the user who deleted the data row, and the date and time it was deleted.

5.3.5 Restoring a previous version of a data row

This feature allows you to restore a previous version of a data row after editing. To restore a previous version of a data row, follow these steps.

1. Click the ellipsis (⋮) corresponding to the data row that you want to restore to a previous version.
2. Click **Restore Previous Version**.

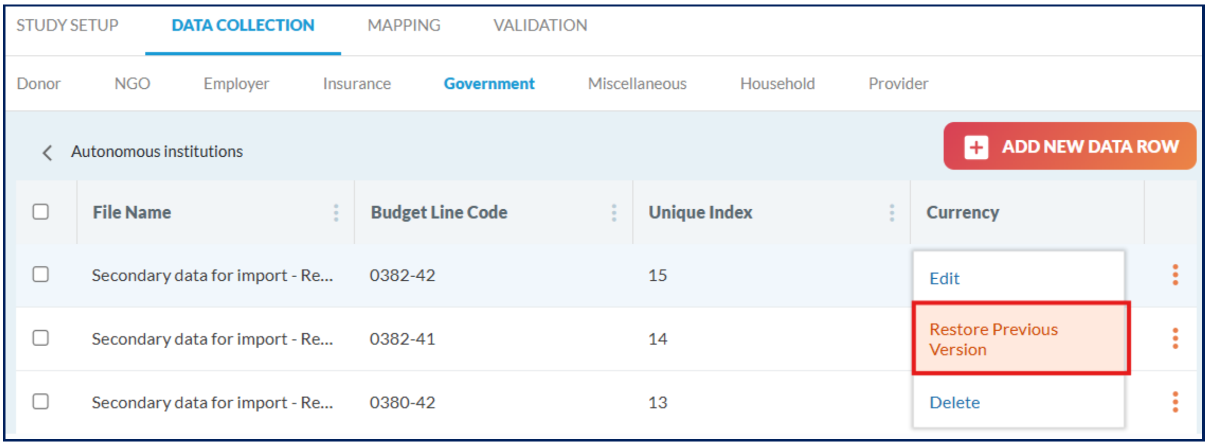


Fig. 5.75. Restoring a previous version of a data row

The *Restore Previous Version* screen is displayed.

3. Click the **SELECT TO RESTORE** button corresponding to the version you want to restore.

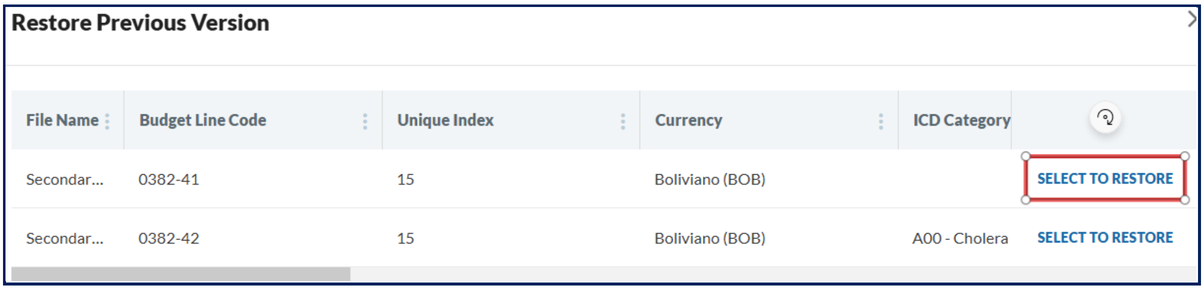


Fig. 5.76. Selecting a previous version of a data row to restore

The previous version is restored successfully.

Note

- This option is only available for secondary and manually added data. It is not available for survey data.
- Up to 10 versions of a data row are maintained in HAPT and can therefore be restored.

5.3.6 Deleting data for donor, nongovernmental organization, employer, insurance company and provider sources

Note

Deleting data will not delete the data source.

To delete data for a source, follow these steps.

1. Click the ellipsis (⋮) corresponding to the data source for which you want to delete the data.
2. Click **Delete Data**.

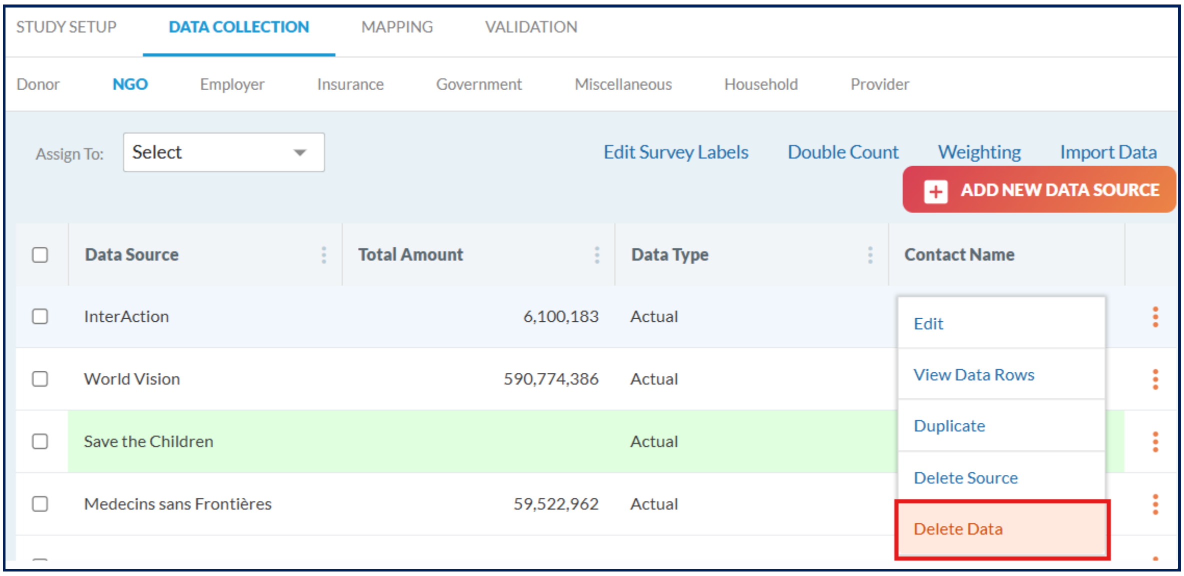


Fig. 5.77. Deleting data for a data source

A message asking you to confirm your action is displayed.

3. To confirm, click **YES**.

The data is deleted, and a confirmation message is displayed.

5.4 Importing secondary data

This feature allows you to import data from Excel files. These data are called secondary data. The secondary data can be imported from files in the `.xlsx` or `.xls` format. The year of the selected study is shown by default. If there are data available for other years, you can import these as well. You can import up to 200 000 data rows from Excel. To import secondary data, follow these steps.

1. Under the **DATA COLLECTION** module, click **Import Data**.

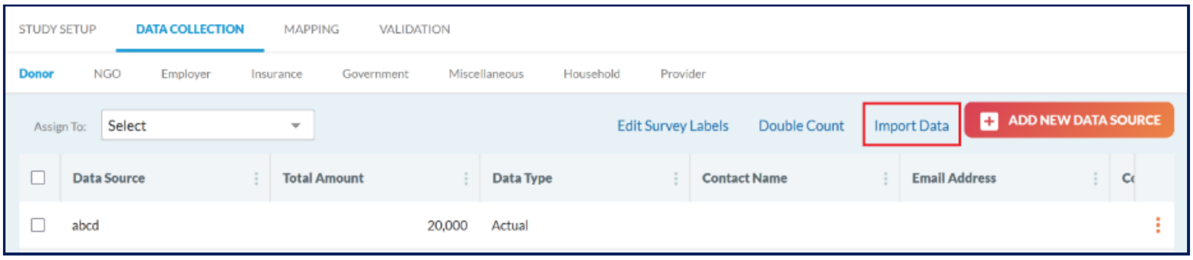


Fig. 5.78. Importing secondary data

The *Import Data* form is displayed.

2. Bind the required details with the associated fields, and then click **IMPORT**. When columns are bound to their fields, a check mark appears in the right grid under the “Binding” column. The colour of the mandatory field names also changes from red to black.

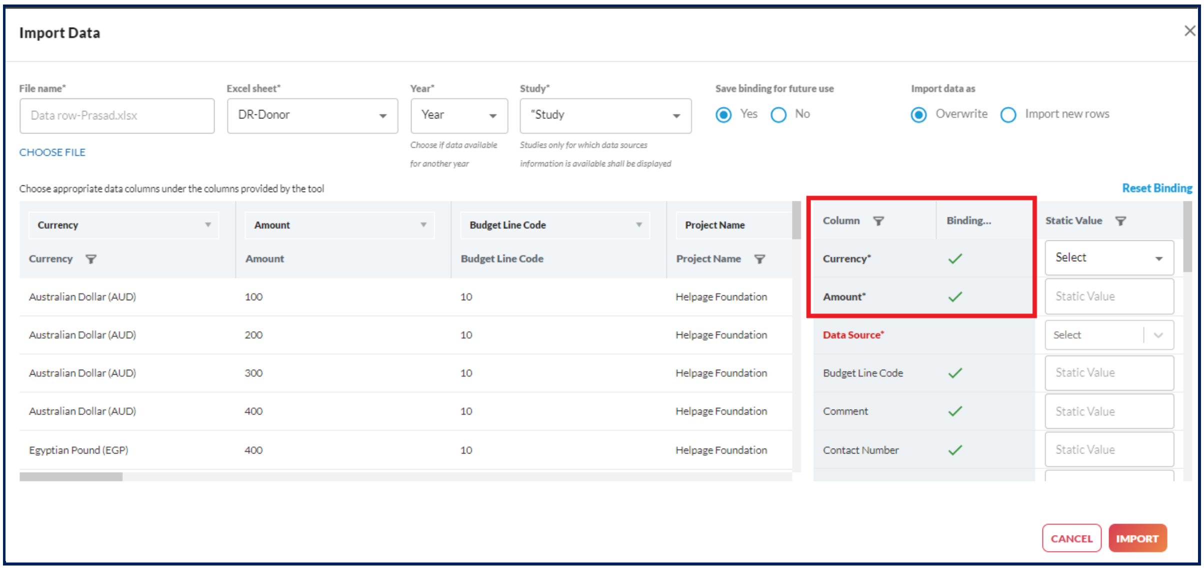


Fig. 5.79. The *Import Data* form

3. The “Import data as” option allows you to overwrite the existing data or import new rows along with existing rows. The “Overwrite” option is selected by default, but this can be changed manually.

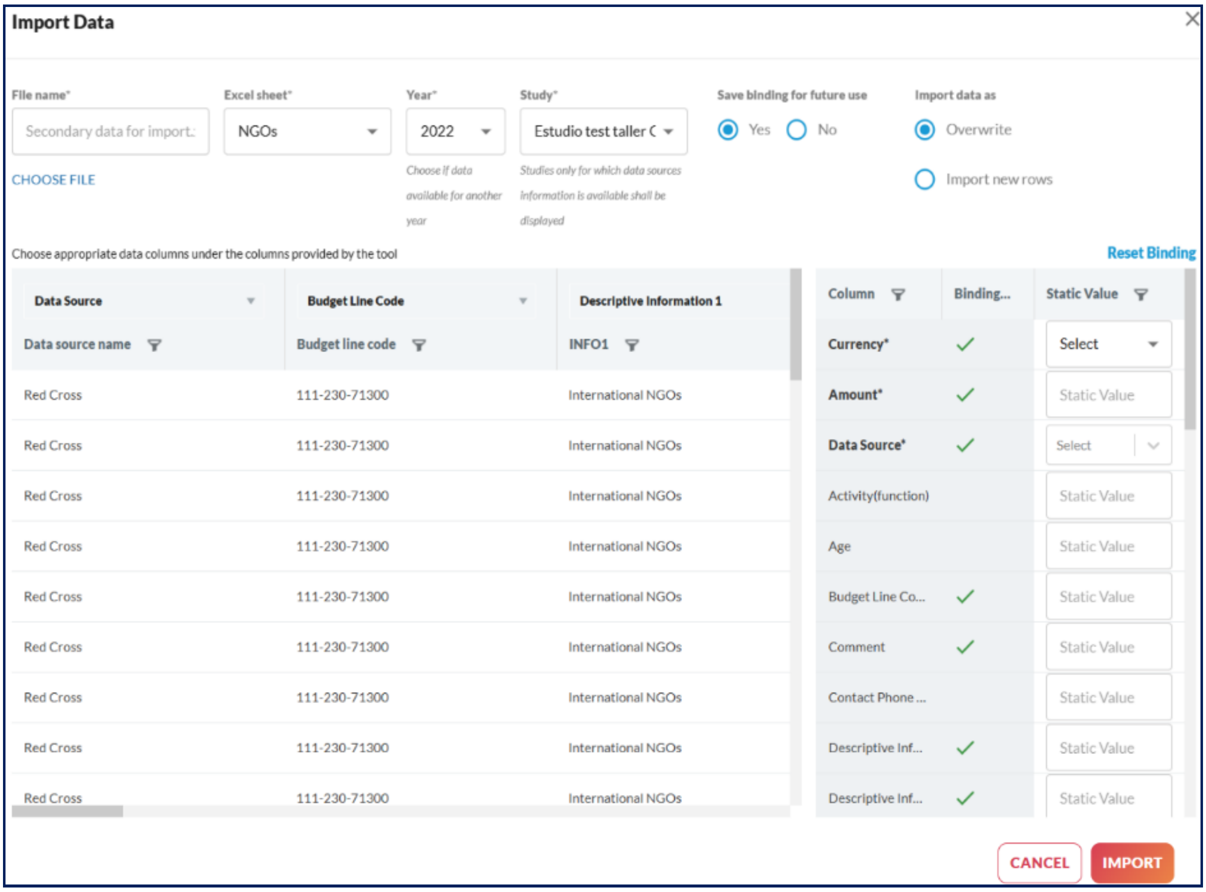


Fig. 5.80. The “Import data as” option

4. Click **IMPORT**. A message is shown stating that the import has started.

Fig. 5.81. Selecting to import data

5. If the “Import data as” option is set to “Overwrite”, a message will show asking you to confirm the data overwrite.

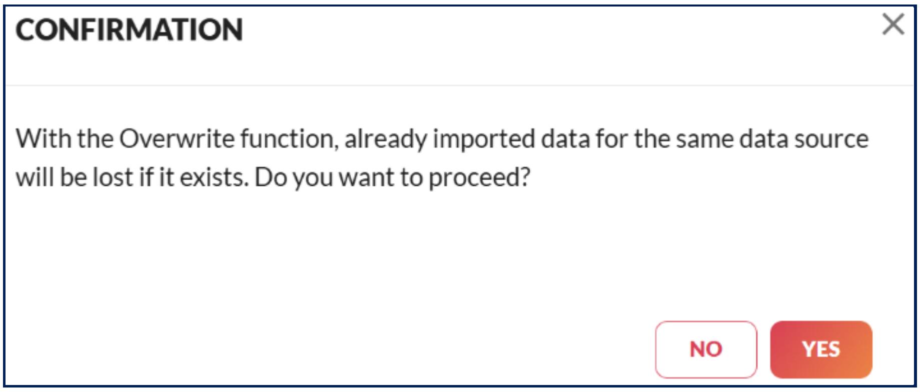


Fig. 5.82. Confirming the overwrite of existing data

6. If the “Import data as” option is set to “Import new rows”, a message will show asking you to confirm the import.

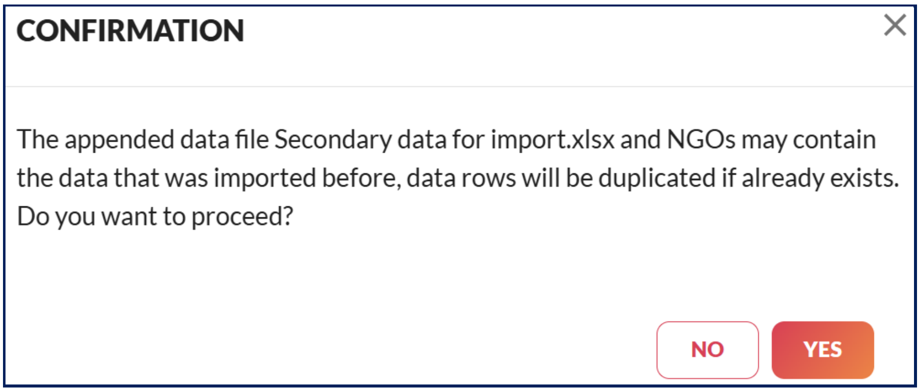


Fig. 5.83. Confirming the import of new data

Note

- If the headers in the Excel spreadsheet match exactly with the ones provided in the tool, the columns will automatically bind. If the headers do not match, you can manually bind the columns.
- Whenever a data row has a valid classification code, the tool tries to set the expenditure type of that data row. If the expenditure type is set, the tool maps the code to the given classification category.
- If a main capital or related expenditure classification (e.g. HK, HCR) is mapped, the expenditure type is changed to the associated type (e.g. HK mapped > capital expenditure, HCR mapped > related expenditure). If only a subclassification is selected, the expenditure type is not changed and the rows are not mapped.
- If the expenditure type is not changed to capital or related, the classifications selected for current expenditure are mapped and the expenditure type is set to "current".
- If no classification is mapped, the row is set to a default row. In a default row, the expenditure type (current, capital or related) is not set and will be determined during the mapping.
- If the Excel file contains two different valid codes for main capital and related expenditure classifications (e.g. If both HK and HCR have valid codes), the data row will not be mapped and it will be set to a default row.
- If the Excel file has an invalid code for a capital or related expenditure classification but a valid code for another classification (current, related, capital) – for example, if HK or HCR has an invalid code but HC has a valid code – the data row will not be mapped and it will be set to a default row.
- Mandatory field names are displayed in red when columns are not bound to the fields. The field names will change to black once columns are bound to the fields.

Notifications are shown when data import starts and finishes.

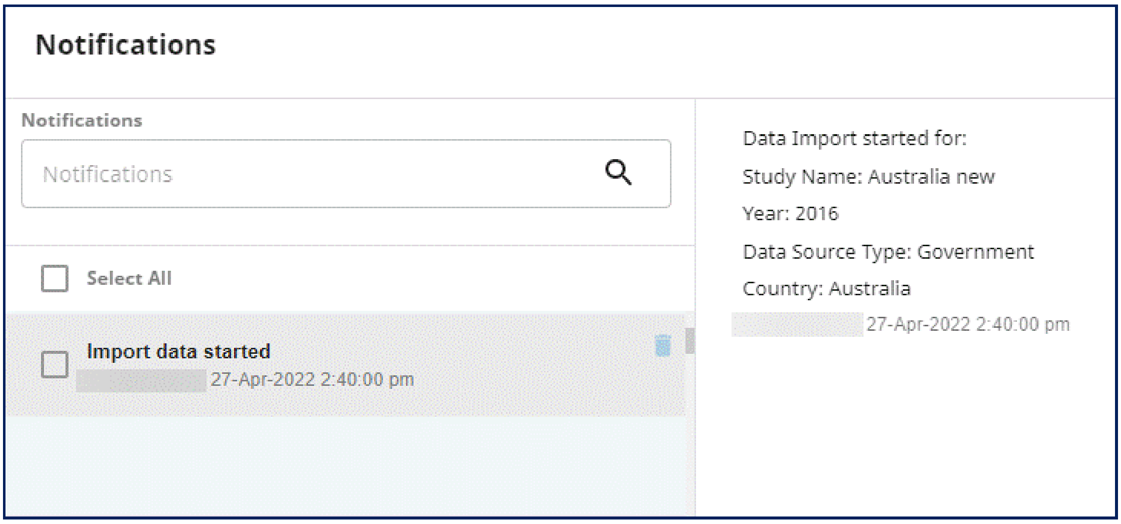


Fig. 5.84. Notification when data import has started

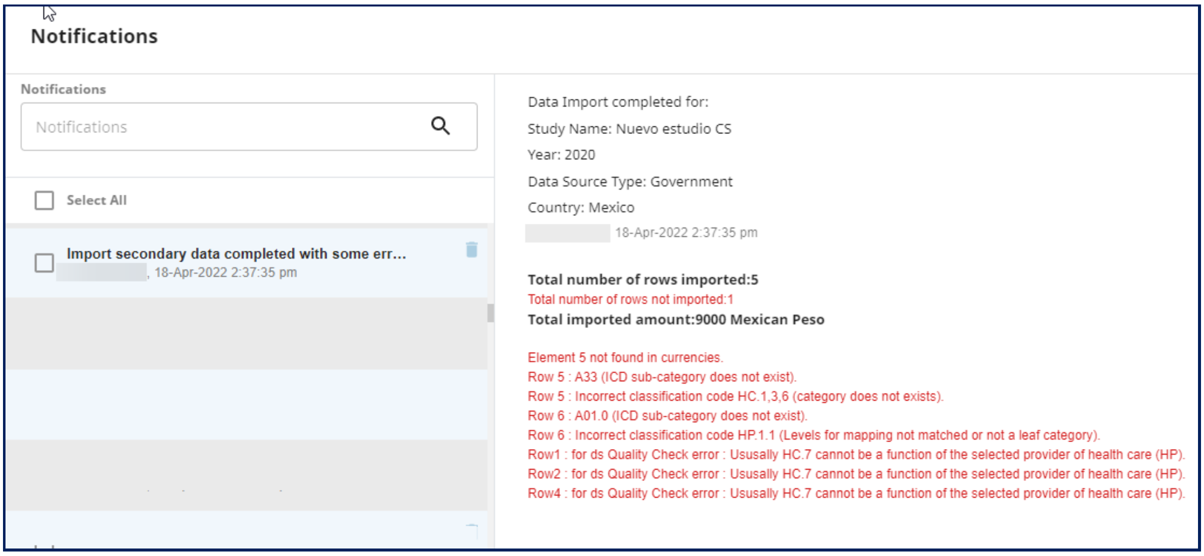


Fig. 5.85. Notification when data import has completed

Both the “Started” and “Completed” notifications contain details about the imported data, including the study name, country, data source type and year. The “Completed” notification also includes the total financial amount (in the relevant currency) of all imported rows, the number of rows imported and not imported, and any error messages. It also shows the name of the user who imported the data, and the date and time it was imported.

Table 5.10 describes the fields shown on the ***Import Data*** form.

Table 5.10. Description of the fields on the *Import secondary data* form

Field name	Description
File name	Allows choosing a secondary data file from your system.
Excel sheet	Allows selection of the single Excel sheet from the imported file.
Year	Shows year of the selected study by default. If there are data available for other years, you can import a study for another year as well.
Study	Displays the selected study. Data for other studies can imported by selecting another study and following the same steps as for importing data in the current study.
Save binding for future use	Allows saving the column binding for future use. Select **No** to avoid saving the binding.
Reset Binding	Resets the bind columns.
Static Value	Allows entry of static values all across data rows, by entering data in the "Static Values" column. Data entered will be applied to all data rows of the imported data. That is, if user enters a static value for a budget line code as 10101, then all rows will have budget line code as 10101. If user inputs a static value, the tick mark is not shown in the "Binding" column. Refer to Fig. 5.79 for more information.
Import data as	Has two options: "Overwrite" and "Import new rows". Overwrite will overwrite the data and "Import new rows" will import new data to add to existing data.

You can import data rows for multiple data sources in a single Excel file by binding the "Data Source Name" column. The Excel file should have a column named "Data Source Name" for automatic binding.

5.4.1 Sample Excel template

Data Source Name	Currency	Amount	Budget Line	Project Name	Project Description	Source of Funding
Apple	Australian Dollar (AUD)	101	10	Helpage Found	Foundation Data	Reliance
Apple	Australian Dollar (AUD)	102	10	Helpage Found	Foundation Data	Reliance
Apple	Australian Dollar (AUD)	103	10	Helpage Found	Foundation Data	Reliance
Apple	Australian Dollar (AUD)	104	10	Helpage Found	Foundation Data	Reliance
Apple	Australian Dollar (AUD)	105	10	Helpage Found	Foundation Data	Reliance
Apple	Australian Dollar (AUD)	106	10	Helpage Found	Foundation Data	Reliance
Microsoft	Australian Dollar (AUD)	107	10	Helpage Found	Foundation Data	Reliance
Microsoft	Australian Dollar (AUD)	108	10	Helpage Found	Foundation Data	Reliance
Microsoft	Australian Dollar (AUD)	109	10	Helpage Found	Foundation Data	Reliance
Microsoft	Australian Dollar (AUD)	110	10	Helpage Found	Foundation Data	Reliance
Microsoft	Australian Dollar (AUD)	111	10	Helpage Found	Foundation Data	Reliance
Microsoft	Australian Dollar (AUD)	112	10	Helpage Found	Foundation Data	Reliance
Microsoft	Australian Dollar (AUD)	113	10	Helpage Found	Foundation Data	Reliance

Fig. 5.86. Sample of and Excel sheet from which secondary data can be imported

You can add data rows for an existing data source. To select the existing data source, click the drop-down and select the required data source. All shown data rows in the file will belong to the data source selected from the drop-down.

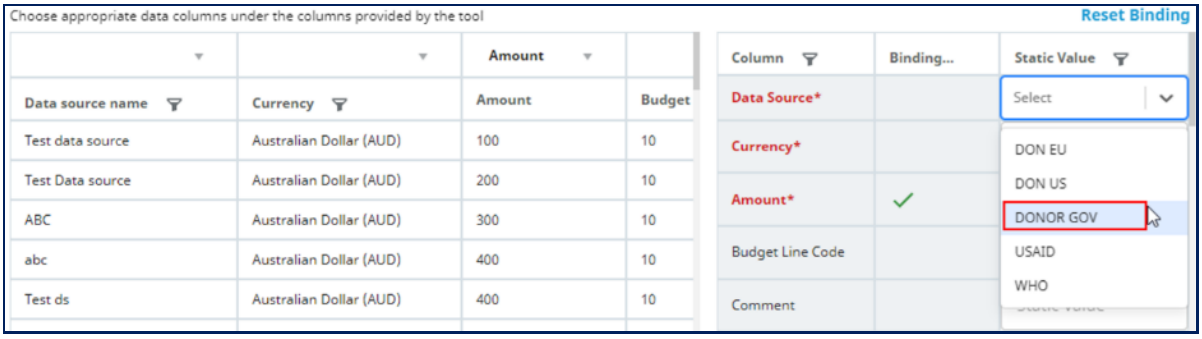


Fig. 5.87. Add a data row to an existing data source

You can create a data source while importing a secondary data sheet.

To add a new data source, enter a value in the “Static Value” column and click **Create**. All data rows in the file will belong to the data source created through the static value.

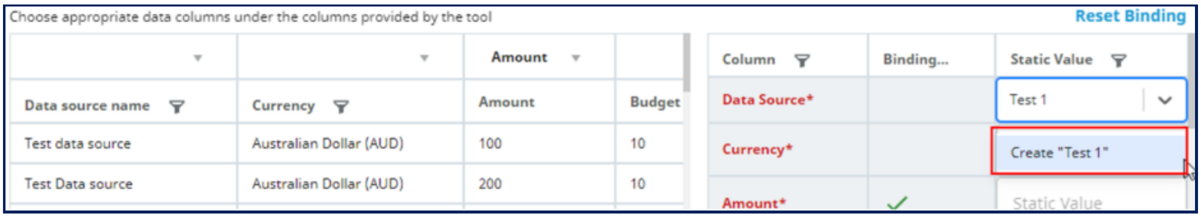


Fig. 5.88. Creating a data source while importing

Note

- Several formats of currency can be used:
  - Currency (Code), (Code), Currency – (Code), Currency/(Code), Currency\(Code)
  - for example, Australian Dollar (AUD), (AUD), Australian Dollar – (AUD), Australian Dollar/(AUD), Australian Dollar\(AUD)
- ICD, ICD subcategory, ISIC fields are available to import while importing secondary data for all data source types (donor, NGO, employer, insurance, government, miscellaneous, household, and provider).
- Classification category format: The format for the code of categories can include HP.1.1 or 1.1 or.1.1. Classification items. The code can be imported with or without containing the code abbreviation. For example, HP.1.1 and 1.1 and.1.1. This also works for .nec; that is, nec, .nec and HP.nec.

FS	HF	HP	HC	HK	FA
FS.1.1	HF.1.1.1	0.6	7.1.1	2.1	1.1.1
FS.1.4	HF.1.1.nec	0.9	7.1.2	2.2	1.1.2
FS.2	HF.1.1.2	.nec	9	nec	1.1.3
FS.3.4	HF.1.2.2	.8.3	7.1.1	2.1	1.1.4
FS.4.2	HF.2.1.1.1	.8.9	7.1.3	2.2	1.1.nec
FS.5.1	HF.2.1.1.2	.7.2	6.5.3	nec	1.2
FS.6.nec	HF.2.1.nec	.5.9	6.2.2	2.1	1.9
FS.7.1.2	HF.1.nec	.4.1	6.1.nec	2.2	1.3.1
7.2.1.2	2.2.1	3.1.3	5.2.9	nec	1.3.2
7.2.2	2.2.2	3.1.nec	4.1	2.1	nec
7.2.nec	2.2.nec	3.3	3.nec	2.2	4
7.3	2.3.1	3.nec	2.2	nec	5
7.2.nec	3.2.1	7.2	7.1.1	2.1	6.1
1.1	1.1.1	6	7.1.1	2.1	1.1.1
1.4	1.1.nec	9	7.1.2	2.2	1.1.2
2	1.1.2	nec	9	nec	1.1.3
3.4	1.2.2	8.3	7.1.1	2.1	1.1.4
4.2	2.1.1.1	8.9	7.1.3	2.2	1.1.nec
5.1	2.1.1.2	7.2	6.5.3	nec	1.2
6.nec	2.1.nec	5.9	6.2.2	2.1	1.9

Fig. 5.89. Sample of a classification category in Excel for data import

A data row may not be imported or may be partially imported (amount imported, but not the mapping) due to various reasons, which will be reported in notifications.

- ICD category or ICD subcategory does not exist.
- ISIC code does not exist.
- Incorrect classification code – category does not exist.
- Incorrect classification code – levels for mapping are not matched, or it is not a valid subcategory.
- Quality check error.
- Data source is not marked as secondary.
- Data source contains invalid characters or exceeds the length limit.
- Data source is missing.
- Currency is not found.
- Amount is missing.

5.5 Identifying double counting

Identifying double counting is an important step in data processing. The absence of this step results in elevated health expenditure amounts. This results in incorrect analysis of health expenditure.

A TL can check for double counting between donor and NGO data sources. When you identify double counting, you must decide which expenditures are to be excluded. All expenditures are included by default. You must select the expenditures that you want to exclude from the list of all expenditures and click **Exclude**.

For example: Assume that Donor A reports giving $100 to NGO B, and NGO B reports spending $80 on a same project also funded by Donor A. If you consider both the amounts, the total spending on the project is $180 based on data collected from Donor A and NGO B. So, the expenditure for one event is counted twice. This results in elevated expenditure. Double counting is used to avoid similar scenarios. You should compare the donor and NGO expenditure details to identify double count and exclude the expenditure if it is repeated.

Note:

- The **Double Count** button appears when you create a data source.
- Double count checking should be performed only after importing the data for data source types Donor and NGO.

To identify double count, follow these steps.

1. On the DATA COLLECTION module, click **Double Count**.

Fig. 5.90. Selecting the Double Count option

The ***Double Counting / Donor and NGO*** message is displayed (“Please import data sources for Donor and NGO before performing double counting”).

2. Click **OK**.

The page for performing double count is displayed.

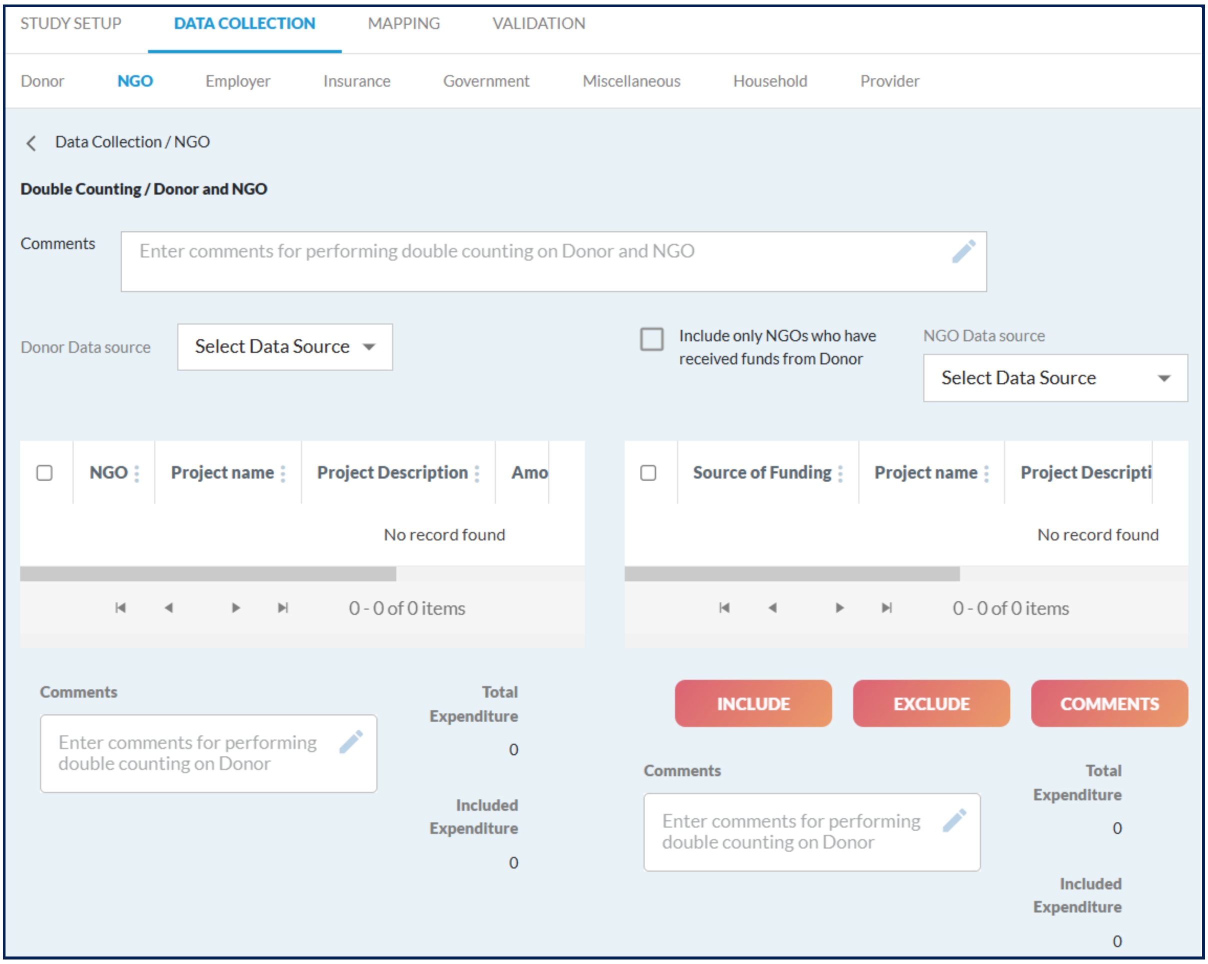


Fig. 5.91. Identifying double counting

Table 5.11 shows the fields and buttons present on the double count page.

Table 5.11. Description of fields and buttons on the *Double Counting / Donor and NGO* page

Field/button name	Description
Comments	Allows adding and editing comments about comparison between expenditures of Donor and NGO.
Donor Data source	Allows selection of data source for Donor from the data source list.
NGO Data source	Allows selection of data source for NGO from the data source list.
Comments (for donor)	Allows adding and editing comments for performing double count for Donor.
Comments (for NGO)	Allows adding and editing comments for performing double count for NGO.

3. Select the data source for the Donor from the drop-down list.

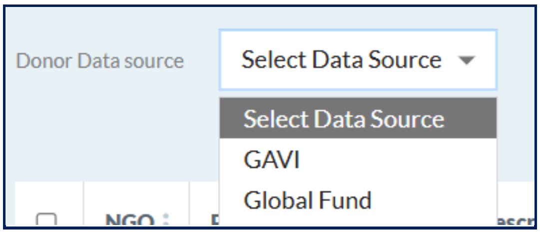


Fig. 5.92. Selecting donor data source

4. Select the data source for the NGO from the drop-down list.

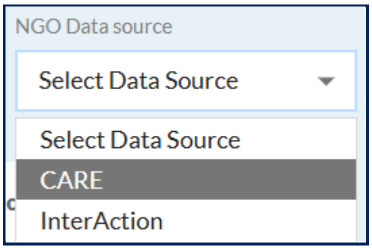


Fig. 5.93. Selecting NGO data source

The record for Donor and NGO data is displayed.

5. To exclude an expenditure, select the check box corresponding to the expenditure and click **Exclude**.

Note

- It is possible to exclude an entire list of expenditures by selecting them all.
- When you click **Exclude**, the selected expenditures are excluded, and the included expenditures are displayed.

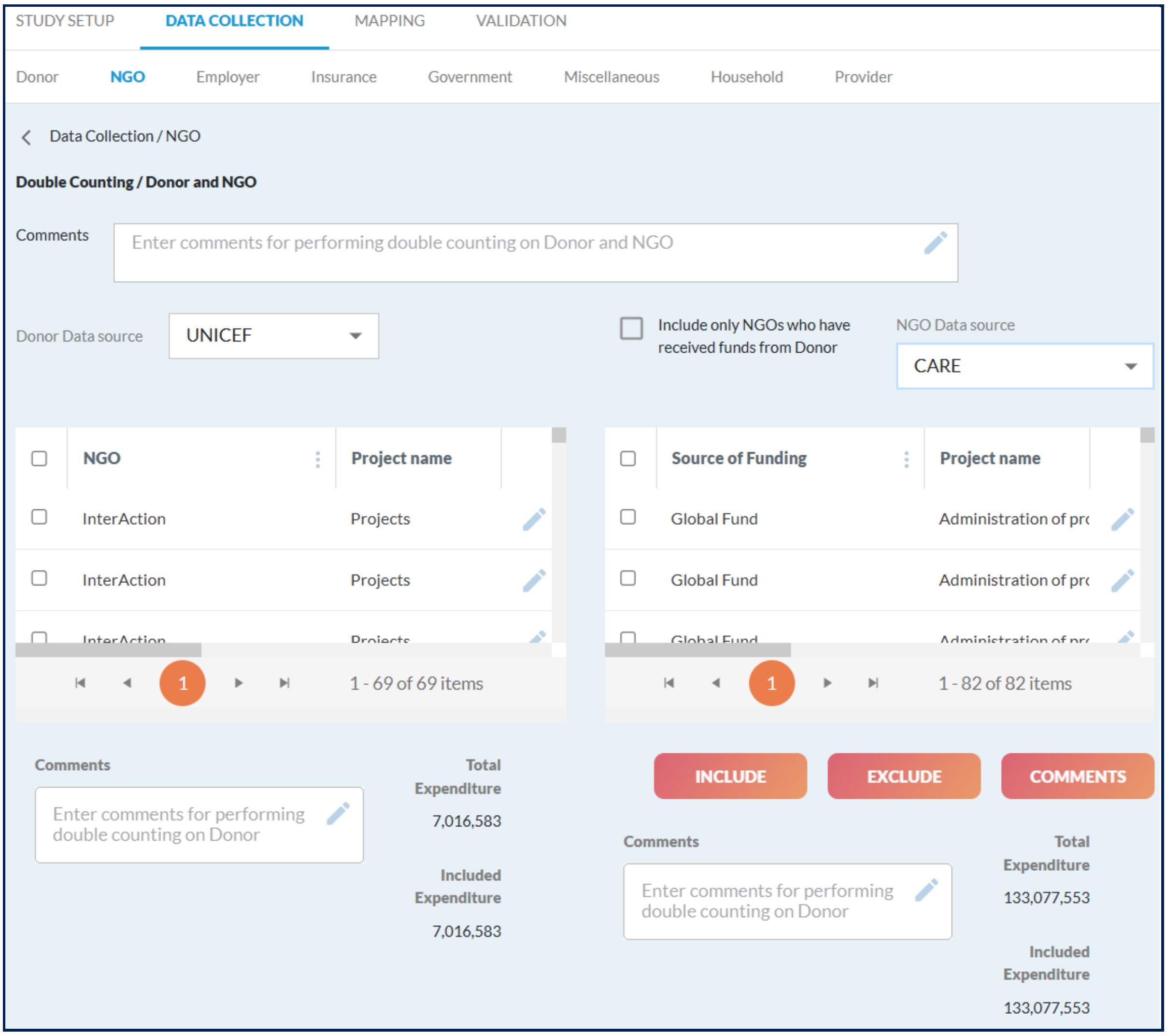


Fig. 5.94. Selecting expenditures to exclude

Continue this process for all needed combinations of Donors and NGOs.

5.6 Data weighting

Country health expenditure data can be collected from various data sources. The data should be collected from various data source types (NGO, Employer, Insurance, Provider) using surveys or Excel files. These data are then used to calculate health expenditure data for a country for a year. If data are not available from all data sources, then extrapolation of the data from an available data subset should be used. TLs and TMs can perform data weighting, if the TM has been assigned the particular data source type. The weighted amount will be further visible in the mapping diagram of each data row in the **MAPPING** module.

Weighting helps estimate health expenditure based on assumptions. There are three approaches that can be used for weighting in the tool. One of the approaches requires that similar institutions spend resources similarly. For example, employers belonging to the same sector of the economy spend in the same way and NGOs of similar sizes spend in similar ways. The second approach categorizes data sources by additional available information (e.g. number of employees in the case of an employer, health spending amount for NGOs). The third approach is weighting manually – weights are applied manually for four data source types (NGO, Employer, Insurance and Provider). Weighting can also be used to correct for data missing due to survey non-responses. By grouping similar entities, or by applying averages that are based on survey data, weighting can help teams estimate total expenditure using available data based on articulated and reasonable assumptions.

Choice of weighting scheme depends on your needs and on which primary and/or secondary data are available (Table 5.12).

Table 5.12. Overview of weighting methods available in HAPT

Data source type	Weighting method	Description
NGO	by number of NGOs	Estimates the missing health expenditure of NGOs by calculating and applying a weighting factor based on the number of NGOs in the country without any expenditure data and the number of NGOs for which expenditure data are available. Different weighting factors can be applied according to groups of NGOs, based on similar characteristics (size, level of activity, etc.). Refer to Weighting data by number of NGOs.
	by health spending	Calculates and applies a weighting factor to estimate the total health expenditure of NGOs for which data are missing. The amount of expenditure of missing NGOs is redistributed based on the spending of the NGOs' for which data are available (with the possibility of redistributing the expenditure by groups of NGOs, based on similar characteristics, such as the main activity). Refer to Weighting data by health spending (NGO).
	manually	For the estimation of missing NGOs' expenditure data, you may use your own weighting factors (previously calculated outside HAPT) and apply this manual weighting to the existing NGOs' expenditure data. Refer to Weight data manually (NGO).
Employer	by number of employers	Estimates the missing health expenditure of employers by calculating and applying a weighting factor based on the number of employers (enterprises, non-profit institutions, etc.) without any expenditure data, and the number of employers for which expenditure data are available. Employers can be given identical weights if they have similar types of activities (agriculture, transport, etc.). Refer to Weighting data by number of employers.
	by number of employees	Estimates the missing health expenditure of employers by calculating and applying a weighting factor based on the number of employees in employers without any

Data source type	Weighting method	Description
		expenditure data, and the number of employees in employers for which expenditure data are available. Different weighting factors can be applied according to groups of employers, based on the type of activity (agriculture, transport, etc.). Refer to Weighting data by number of employees.
	manually	For the estimation of missing employers' expenditure data, you may use your own weighting factors (previously calculated outside HAPT) and apply this manual weighting to the existing employers' expenditure data. Refer to Weighting data manually (Employer).
Insurance	by number of insurance	Estimates the missing health expenditure of insurers by calculating and applying a weighting factor based on the number of insurance companies without any expenditure data, and the number of insurance agencies and companies for which expenditure data are available. Different weighting factors can be applied according to groups of insurances, based on similar characteristics (size, level of activity, etc.). Refer to Weighting data by number of insurance companies.
	by number of individuals covered by health insurance	Estimates the missing health expenditure of insurances by calculating and applying a weighting factor based on the number of persons covered by health insurances without any expenditure data, and the number of persons covered by insurances for which expenditure data are available. Different weighting factors can be applied according to groups of insurances, based on similar characteristics (type of insurance, etc.). Refer to Weighting data by number of individuals covered by health insurance.
	manually	For the estimation of missing insurances' expenditure data, you may use your own weighting factors (previously calculated outside HAPT) and apply this manual weighting to the existing insurances' expenditure data. Refer to Weighting data manually (Insurance).
Provider	by health spending	Calculates and applies a weighting factor based on the total health expenditure of missing health care providers (e.g. the total health expenditure of providers without primary or secondary expenditure data is known by the user). The amount of expenditure of missing providers is redistributed to providers' health expenditure available from primary / secondary data (with the possibility of redistributing the expenditure by groups of providers, based on similar characteristics, such as the main activity). Refer to Weighting data by health spending (Provider).

Data source type	Weighting method	Description
	manually	For the estimation of missing providers' expenditure data, you may use your own weighting factors (previously calculated outside HAPT) and apply this manual weighting to the existing provider's expenditure data. Refer to Weighting data manually (Provider).

Note

- The tool uses the same weighting methods for all data source types except for employers.
- For employers, data sources are grouped by sectors in the economy, whereas other data source types are grouped by expenditure amounts.

5.6.1 Weighting NGO data

5.6.1.1 Weighting data by number of NGOs

Weighting of NGO data involves categorizing NGOs by groups. NGOs may be grouped by size (small, medium, large), local versus international NGO, number of projects, and so on. Each group is assigned a number. To apply weights by number, follow these steps.

1. In the **DATA COLLECTION** module, choose the **NGO** submodule.

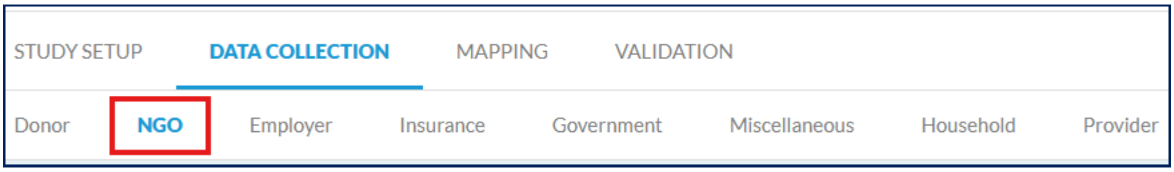


Fig. 5.95. Selecting the NGO submodule

The ***NGO*** screen is displayed.

2. Click **Weighting**.

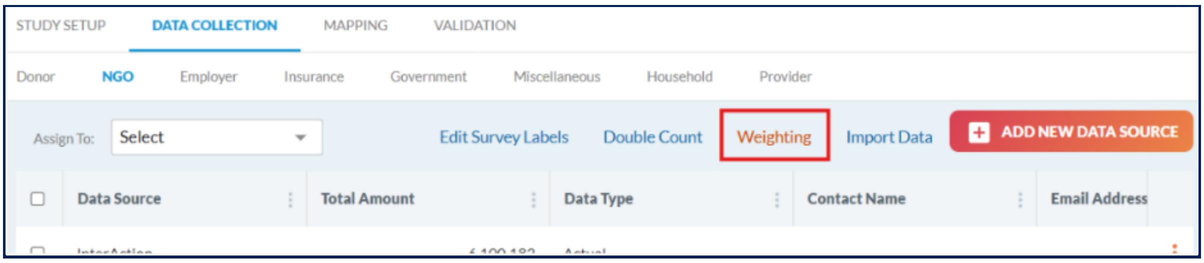


Fig. 5.96. Opening the *Weighting* form

3. A warning message about applying double counting before applying weighting is displayed.

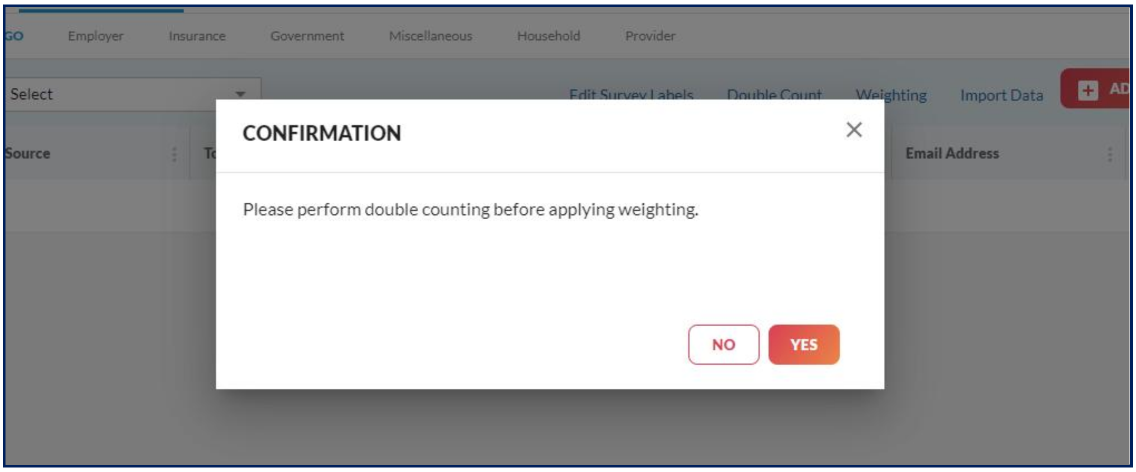


Fig. 5.97. Confirmation for double counting

After clicking **YES**, the ***Weighting*** screen (Data Collection/NGO) is displayed.

4. Check the box for “Yes” to apply weighting.

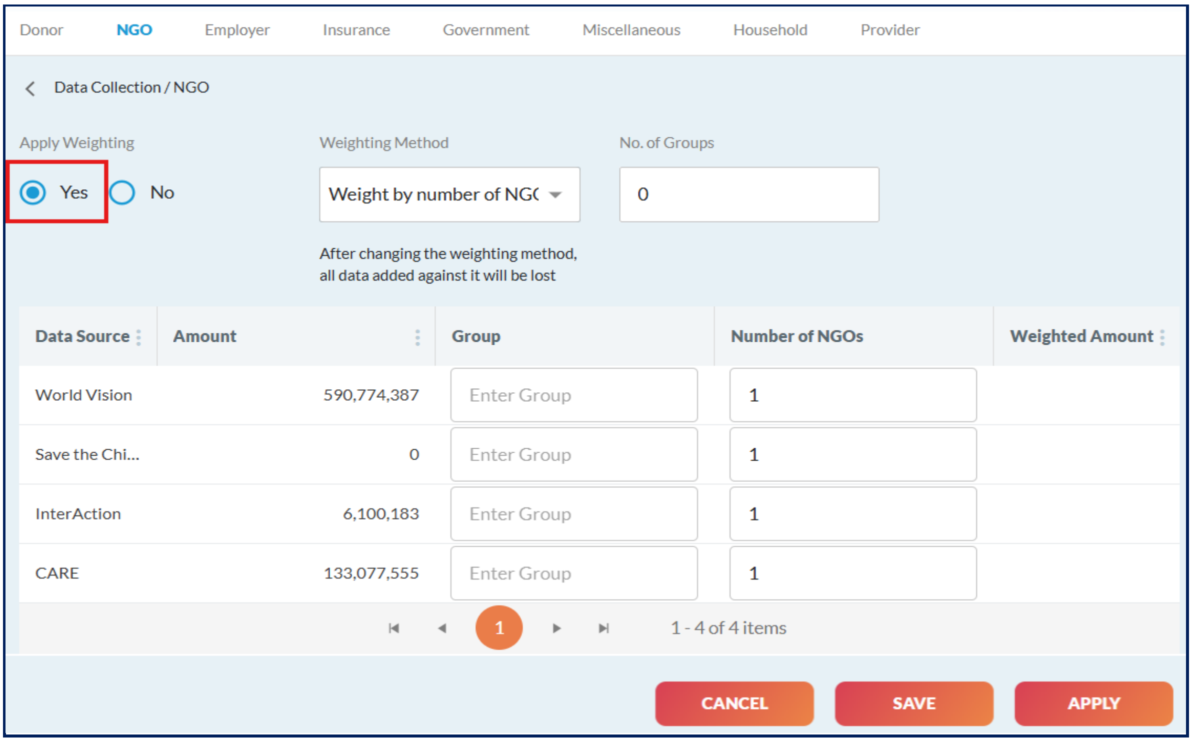


Fig. 5.98. Selecting to apply weighting

Note

The options to select weighting method and number of groups appears only after you select the check box for Yes to apply weighting.

5. Select **Weight by number of NGO** from the *Weighting Method* drop-down list.

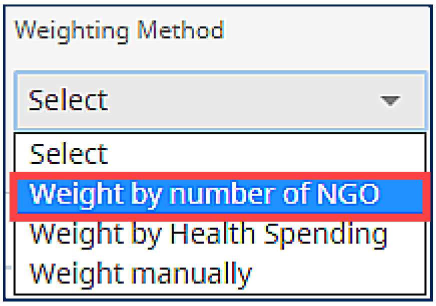


Fig. 5.99. Weighting by number of NGOs

6. Enter the number of groups.

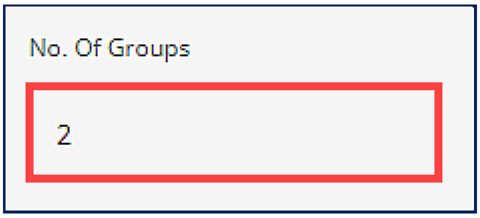


Fig. 5.100. Entering the number of groups

This categorization is done by grouping NGOs – for example, by size (small, medium, large), local versus international NGO, annual amount of expenditure or number of projects, and so on.

7. Assign each data source (NGO) in each group according to their characteristics.
8. Enter values in the "Number of NGOs" column (by default the value is 1) and click **SAVE**.

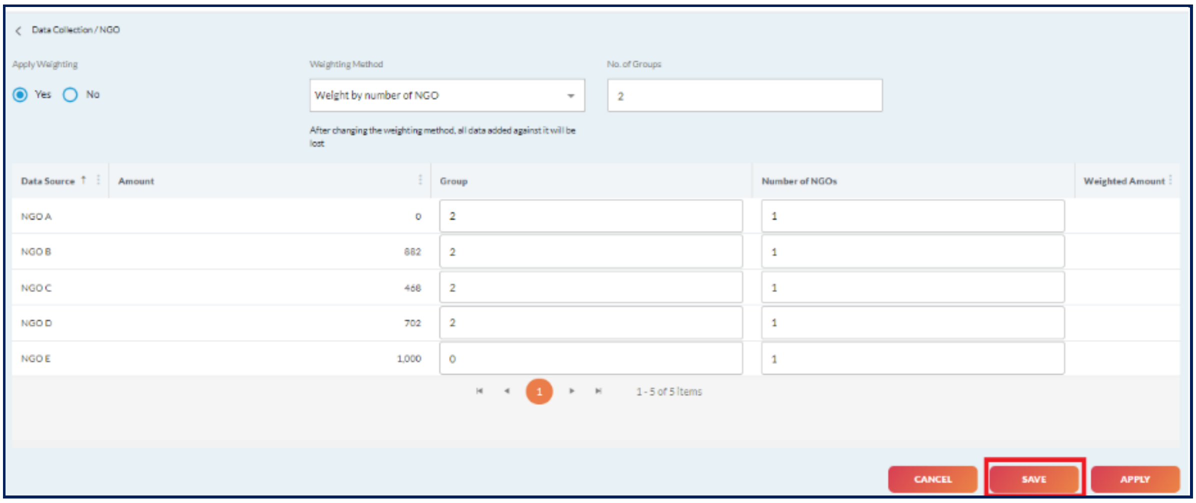


Fig. 5.101. Saving the weighting data

Note

- All amounts are shown in the default currency.
- For all weighting methods, you, the user, decide the number of groups.
- Always decide how to group data sources before applying weights.
- If you don't need different groups, you will still have to select 1 as number of groups and input "1" in the group name for the data sources you want to include in the calculation.
- Data sources without group (group missing or group 0) won't be included in the calculation and application of weights.
- Save the grouping of data sources before applying weighting logic.

Table 5.13 shows the fields present on the ***Weighting*** page of NGO.

Table 5.13. Description of fields and buttons on the *Weighting* page

Field/button name	Description
Apply Weighting	Allows selection of the weighting option, by selecting **Yes**.
Weighting Method	Allows selection of the weighting method from the list.
No. of Groups	Allows the selection of the number of groups in which the NGOs are categorized.
Number of NGOs	Allows entry of the number of NGOs.
Data Source	Displays the list of data sources.
Amount	Allows adding and editing edit comments for performing double count for NGO.
Group	Allows entering the group to be assigned to the data sources in the list. Only numerical characters are accepted for group name.
Weighted Amount	Displays the weighted amount after applying the weighting.

9. Click **APPLY** to apply the weighting logic.

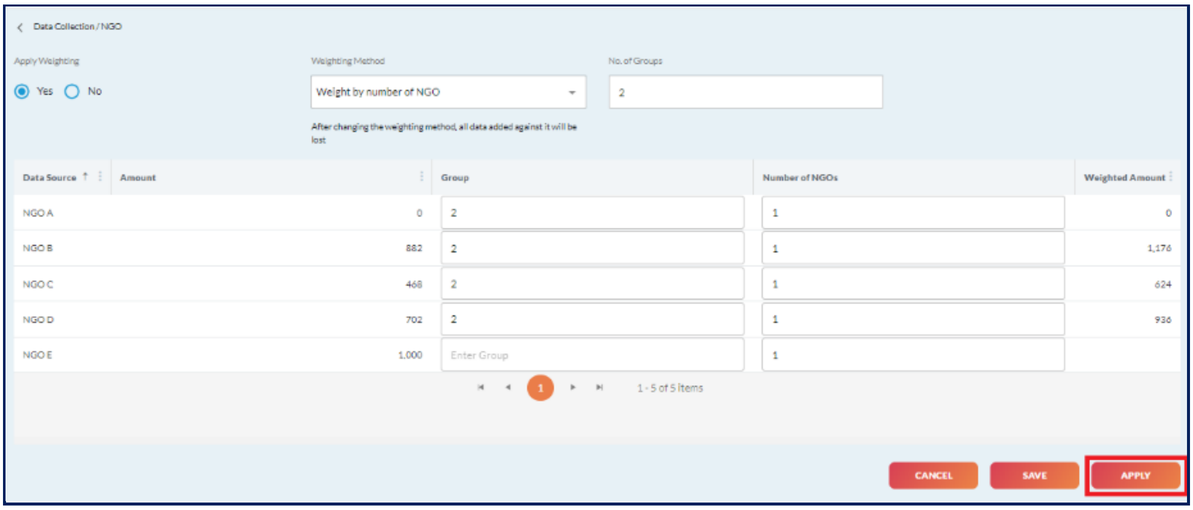


Fig. 5.102. Applying the weighting

The weighted amount is displayed.

5.6.1.1.1 Weighting calculation logic

The data sources are categorized in groups before weighting, and a weight is calculated for each group.

$$Weight = \frac{Total\ number\ of\ NGOs\ in\ the\ group}{Number\ of\ NGOs\ that\ provided\ data\ in\ the\ group}$$

For example, for group 2, the weight is 4/3 because data are available for only three NGOs among all four NGOs.

After calculating the weight, weighting logic is applied to each data source for which expenditure amount data are available to calculate weighted expenditure.

$$Weighted\ Amount = Expenditure\ Amount \times Weight$$

So, for the selected data source in group 2 (NGO B), the weighted amount is 882 × 4/3 = 1 176.

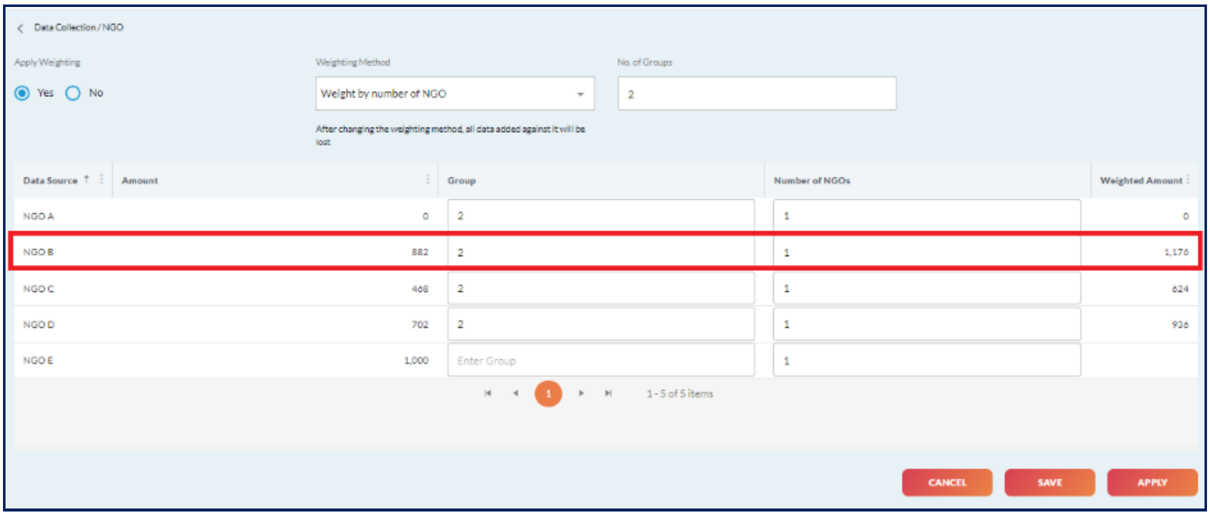


Fig. 5.103. Displaying the weighted amount

5.6.1.2 Weighting data by health spending (NGO)

This method allows you to weight expenditure data based on the available data sources of health spending. The assumption behind weighting NGOs based on health spending is that NGOs that spend similar amounts will behave in similar ways. You can use this option when data on total health spending for the non-surveyed or no-response NGOs are available. Teams can enter amounts based on knowledge about those entities or past data and can use this to estimate the missing data. Note: You can manually enter health spending for the missing data sources.

To apply weights by health spending, follow these steps.

To open the weighting page, refer to Weighting data by number of NGOs, steps 1 to 4.

1. Select **Weight by health spending** from the ***Weighting Method*** drop-down list.

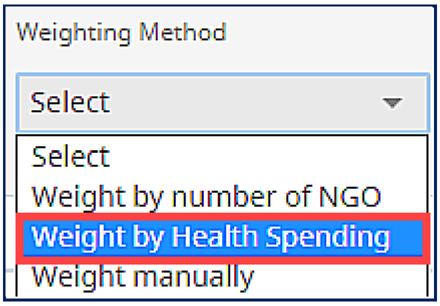


Fig. 5.104. Weighting by health spending

2. Enter the number of groups.

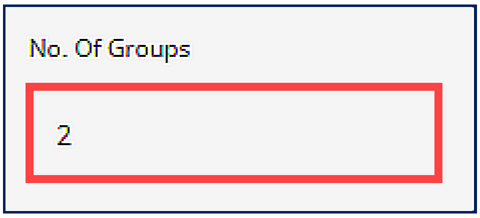


Fig. 5.105. Entering the number of groups

This categorization is done based on grouping NGOs – for example, by size (small, medium, large), local versus international NGO, annual amount of expenditure or on number of projects the NGO undertakes or the types of activity carried out.

3. You can add the amount for the data sources if no amount is available from secondary data or survey.

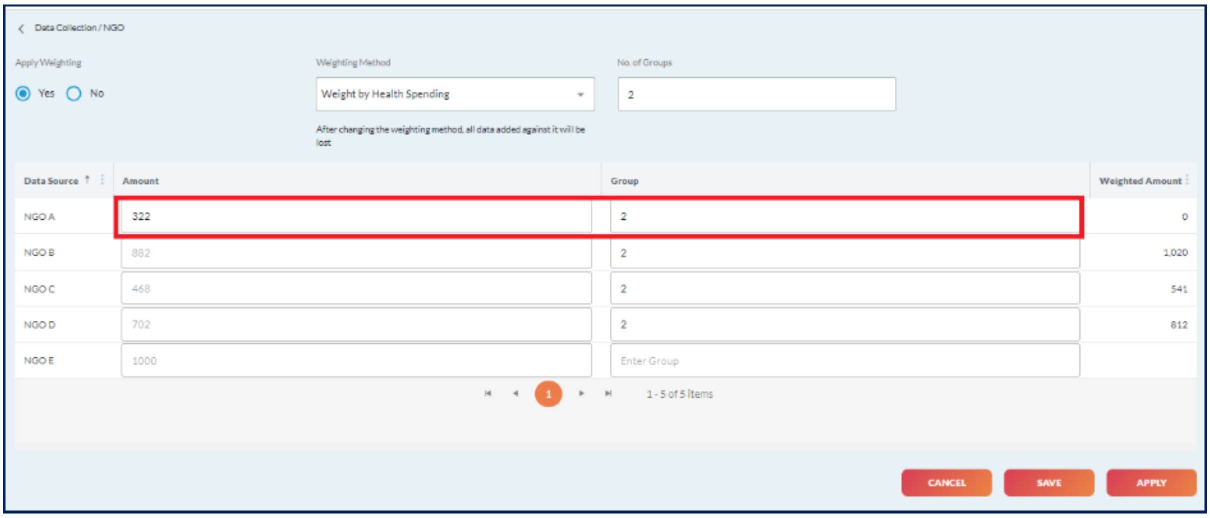


Fig. 5.106. Entering a missing amount for a data source

4. After entering the missing amounts for data sources in the same group, click **SAVE**.

Fig. 5.107. Saving the weighting data

5. Click **APPLY** to apply the weighting logic.

Fig. 5.108. Applying weighting

The weighted amount is displayed.

5.6.1.2.1 Weighting calculation logic

The data sources are merged in different groups before applying the weighting logic, and a weight is calculated for each group.

$$Weight = \frac{Total\ amounts\ in\ the\ group}{Amount\ for\ data\ source(s)\ with\ survey\ or\ secondary\ data\ in\ the\ group}$$

For example, for group 2:

$$Weight = \frac{Amount\ of\ NGO\ B + Amount\ of\ NGO\ C + Amount\ of\ NGO\ D + Amount\ of\ NGO\ A}{Amount\ of\ NGO\ B + Amount\ of\ NGO\ C + Amount\ of\ NGO\ D} = \frac{2\,374}{2\,052} = 1.1569$$

Note: Amount for NGO A is input by the user in the column “Amount”. So, for example:

$$Weight = \frac{882 + 468 + 702 + 322}{882 + 468 + 702} = \frac{2\,374}{2\,052} = 1.1569$$

After calculating the weight, weighting logic is applied to each data source to calculate weighted expenditure.

$$Weighted\ amount = Amount\ of\ data\ source \times Weight$$

For example, for group 2:

- NGO B weighted amount = 882 × 1.1569 = 1 020.404
- NGO C weighted amount = 468 × 1.1569 = 541.439
- NGO D weighted amount = 702 × 1.1569 = 812.158

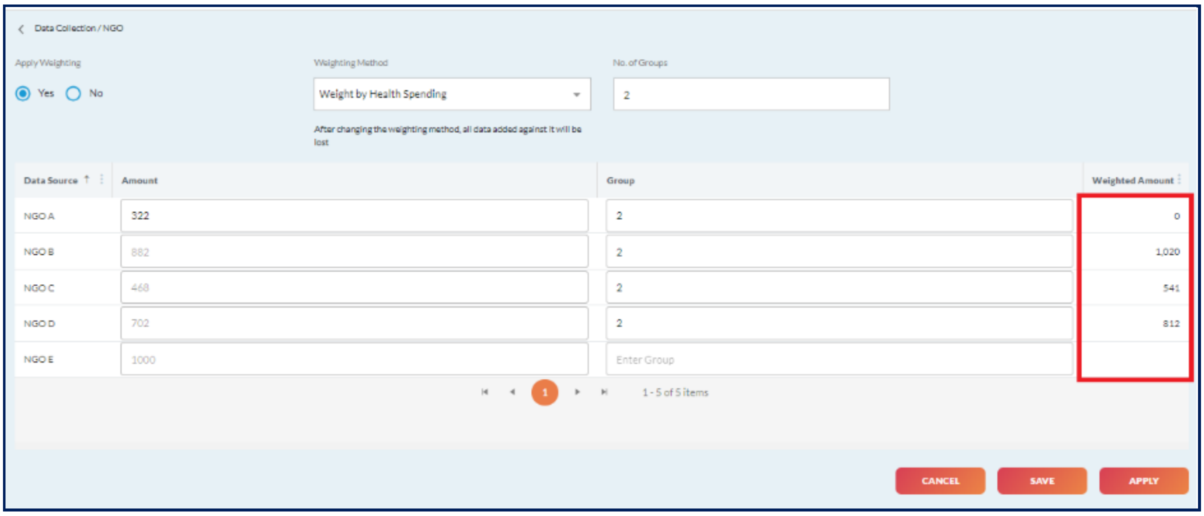


Fig. 5.109. Displaying the weighted amount

5.6.1.3 Weighting data manually (NGO)

Depending on the experience and calculation capabilities of the country, you may have done calculations outside the HAPT tool, or have access to such calculations, and may know the weight to be applied. Therefore, the weighting or applying of the weight could be done manually in the tool. For that, follow these steps.

To open the weighting page, refer to Weighting data by number of NGOs, steps 1 to 4.

1. Select **Weight manually** from the drop-down list of weighting methods.

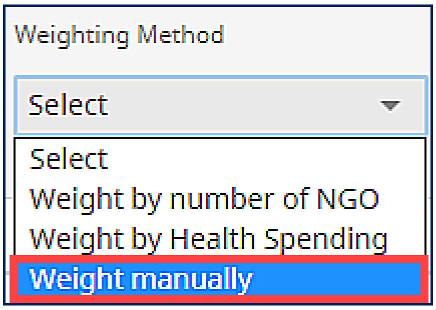


Fig. 5.110. Weighting manually

2. Enter the weighting factors for the relevant data sources.

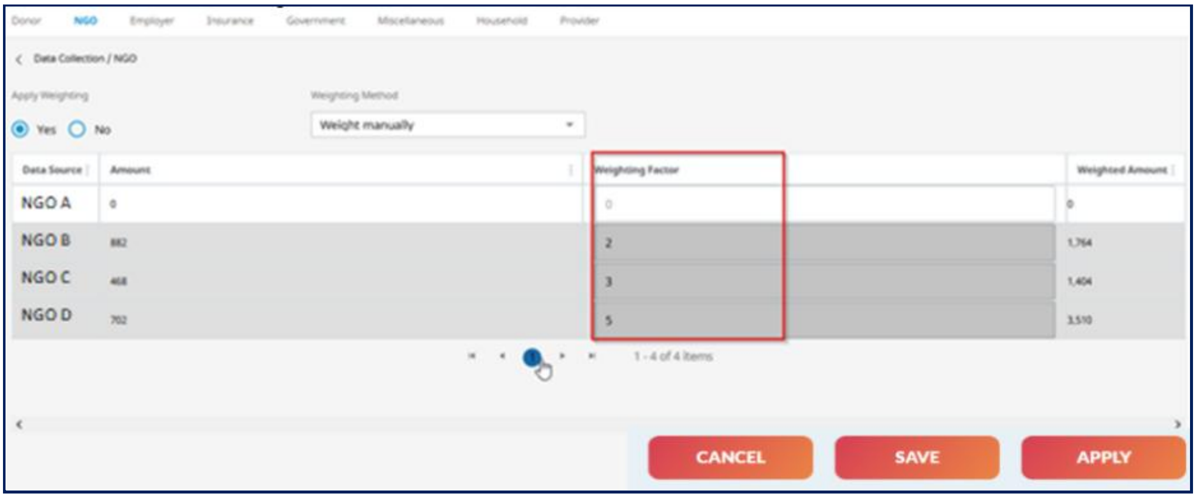


Fig. 5.111. Entering the weighting factor

3. Click **SAVE**.

Fig. 5.112. Saving the weighting data

4. Click **APPLY** to apply the weighting logic.

Fig. 5.113. Applying weighting

The weighted amount is displayed.

5.6.1.3.1 Weighting calculation logic

Input a weight against each data source for which data are available. For example, if the weight for NGO B is 2, NGO C is 3 and NGO D is 5, then the weighted amounts will be:

- NGO B = 882 × 2 = 1 764
- NGO C = 468 × 3 = 1 404
- NGO D = 702 × 5 = 3 510

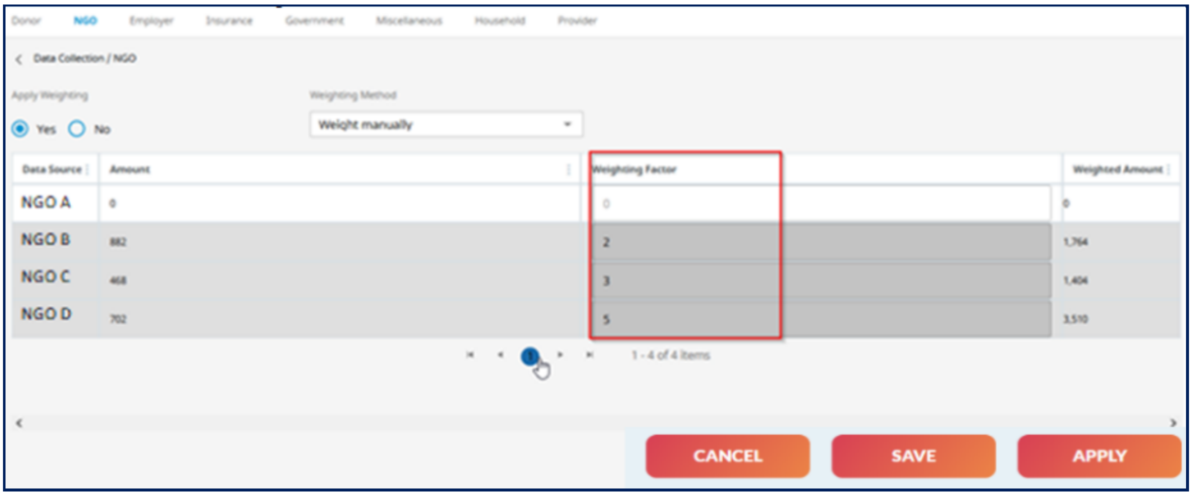


Fig. 5.114. Displaying the weighted amounts

> **Note**
>
> The weight can be different for different data sources.

5.6.2 Weighting expenditure data by number of employers

Employers are grouped based on the sector of the economy to which they belong, and weighting is calculated. It is assumed that enterprises in the same sector allocate health resources similarly.

5.6.2.1 Weighting data by number of employers

Using the number of employers, weighting is calculated by grouping data source by sector of economy and by number of employers. The weight is calculated:

$$Weight \ = \frac{Total\ number\ of\ employers\ in\ the\ group}{Number\ of\ employers\ that\ provided\ data\ in\ the\ group}$$

Table 5.14 shows the calculation of weighted expenditure using the number of employers. Note that the currency for the amount is arbitrary, so is not defined.

Table 5.14. Weighted expenditure based on the number of employers

Data source	Amount	Industry type	Number of employers	Weighted amount
Employer A	2 000	Agriculture	3	2 000 × (6/4) = 3 000
Employer B	ND	Agriculture	2	NA
Employer C	5 000	Agriculture	1	5 000 × (6/4) = 7 500
Employer D	ND	Transport	1	NA
Employer E	ND	Transport	10	NA
Employer F	8 000	Transport	1	8 000 × (12/1) = 96 000
Employer G	ND	Retail	1	NA
Employer H	12 000	Retail	2	12 000 × (4/2) = 24 000
Employer I	ND	Retail	1	NA
Employer J	10 000	Select	1	NA

NA: not applicable; ND: no data

First, the weights for each group are calculated.

- For Agriculture:

  $$B1 \ = \frac{Number\ of\ employers\ (data\ sources)\ in\ group}{Number\ of\ data\ sources\ for\ which\ data\ is\ received\ from\ survey\ or\ secondary\ data}$$

  $$B1 \ = \frac{6}{4}$$
- Similarly, for Transport:
- $B2 \ = \frac{12}{1}$
- Similarly, for Retail:

- $B3 = \frac{4}{2}$

The weighted amount is calculated by using following formula:

$$\textit{Weighted amount} = \textit{Amount for data source} \times \textit{Weight}$$

Weighted amount for data sources is as follows:

- Data source: Employer A: 3 000
- Data source: Employer C: 7 500
- Data source: Employer F: 96 000
- Data source: Employer H: 24 000

To apply weight by number, follow these steps.

1. Under DATA COLLECTION, click **Employer**.

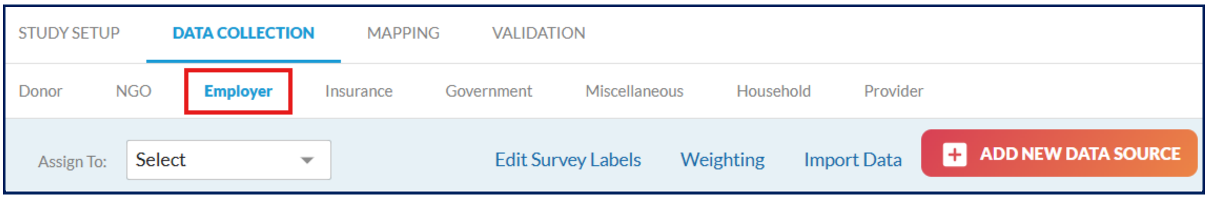


Fig. 5.115. Selecting the employer data source type

The ***Employer*** screen is displayed.

2. Click **Weighting**.

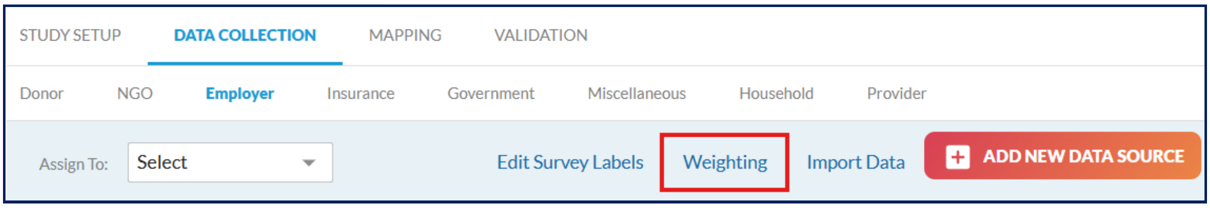


Fig. 5.116. Opening the *Weighting* screen

The ***Weighting*** screen is displayed.

3. Select **Yes** to apply weighting.

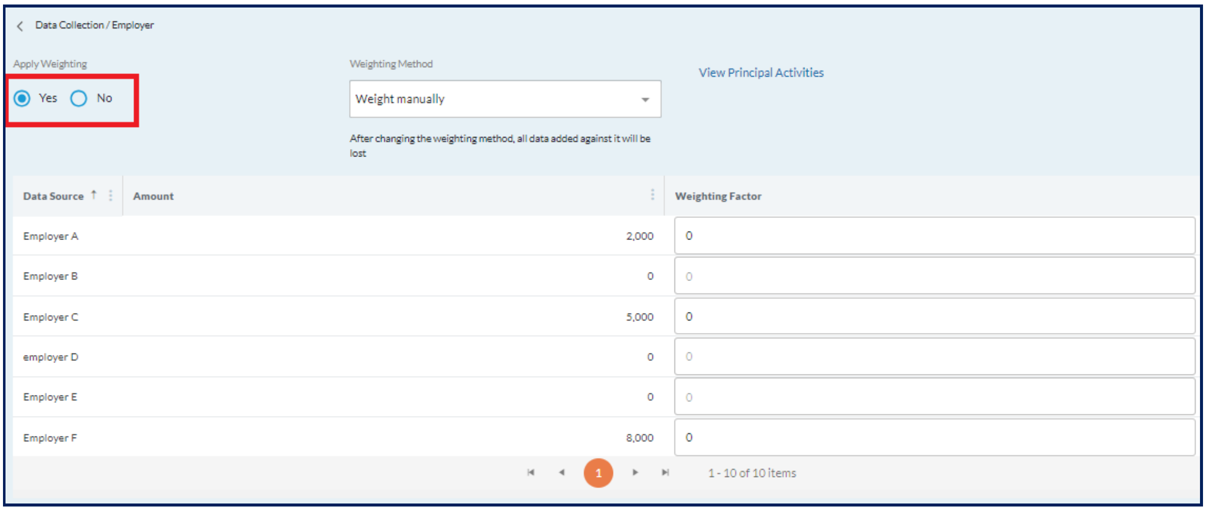


Fig. 5.117. Selecting to apply weighting

4. Select **Weight by number of Employers** from the *Weighting Method* drop-down list.

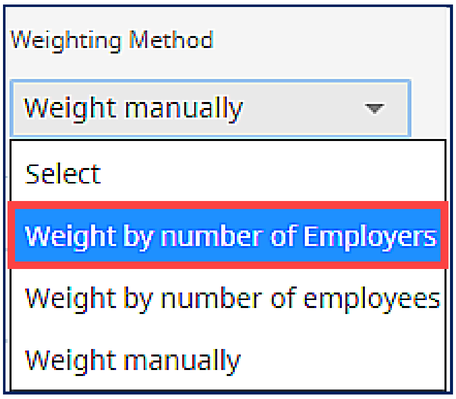


Fig. 5.118. Weighting by number of employers

5. For each data source, select the industry type.

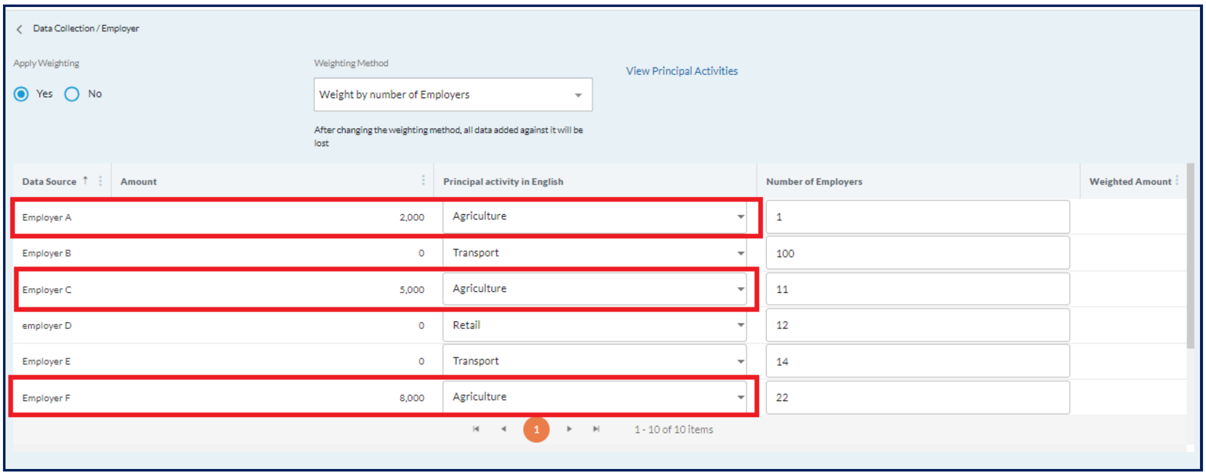


Fig. 5.119. Selecting the industry type

Note: The option to select industry type appears only if you select “Weight by number of employers” as the weighting method.

6. Click **SAVE**.

Fig. 5.120. Saving the weighting data

7. Click **APPLY** to apply the weighting logic.

Fig. 5.121. Applying the weighting

The weighted amount is displayed.

5.6.2.2 Weighting data by number of employees

This strategy can be used when the number of employees is available for all sources, including those that were not surveyed or have not responded to a survey. In this case, you must enter the number of employees for each such source. You cannot manually enter the number of employees for sources captured from survey or from a secondary file. For the calculation of the weight by the number of employees, the following logic is used.

1. Enter the number of employees (data you add will be shown in green).

Table 5.15. Weighted amount calculation for number of employees

Data source	Amount	Principal activity (in English)	Number of full-time employees	Weighted amount
Employer A	ND	Agriculture	90 (input by user)	
Employer B	882	Agriculture	100	
Employer C	468	Agriculture	50 (input by user)	
Employer D	702	Agriculture	45	
Employer E	1 000	ND		

ND: no data

2. Calculate the weight for each group.

- For Agriculture:

$$B1 = \frac{Number\ of\ employees\ in\ group\ combining\ all\ data\ sources}{Number\ of\ total\ employees\ obtained\ from\ different\ surveys}$$

$$B1 = \frac{90 + 100 + 50 + 45}{100 + 45 + 50} = \frac{285}{195} = 1.461$$

3. Find the weighted amount of expenditure for data sources.

Table 5.16 shows the calculation of the weighted amount for data sources.

Table 5.16. Weighted amount calculation for data sources

Data source	Amount	Sector	Number of full-time employees	Weighted amount (weight for group × expenditure)
A	ND	Agriculture	90 (input by user)	NA
B	882	Agriculture	100	1 289.07
C	468	Agriculture	50 (input by user)	683.74
D	702	Agriculture	45	1 025.62
E	1 000	ND	ND	NA

NA: not applicable; ND: no data

Thus:

- Data source: Employer B: 882 × 1.461 = 1 289.07
- Data source: Employer C: 468 × 1.461 = 683.74
- Data source: Employer D: 702 × 1.461 = 1 025.62

To apply weight by number of employees, follow these steps.

To open the weighting page, refer to Weighting data by number of employers, steps 1 to 3.

1. Select **Weight by number of employees** from the *Weighting Method* drop-down list.

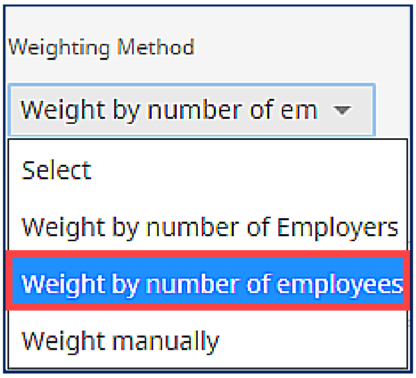


Fig. 5.122. Weighting by number of employees

2. For a selected principal activity in English, enter the known number of employees.

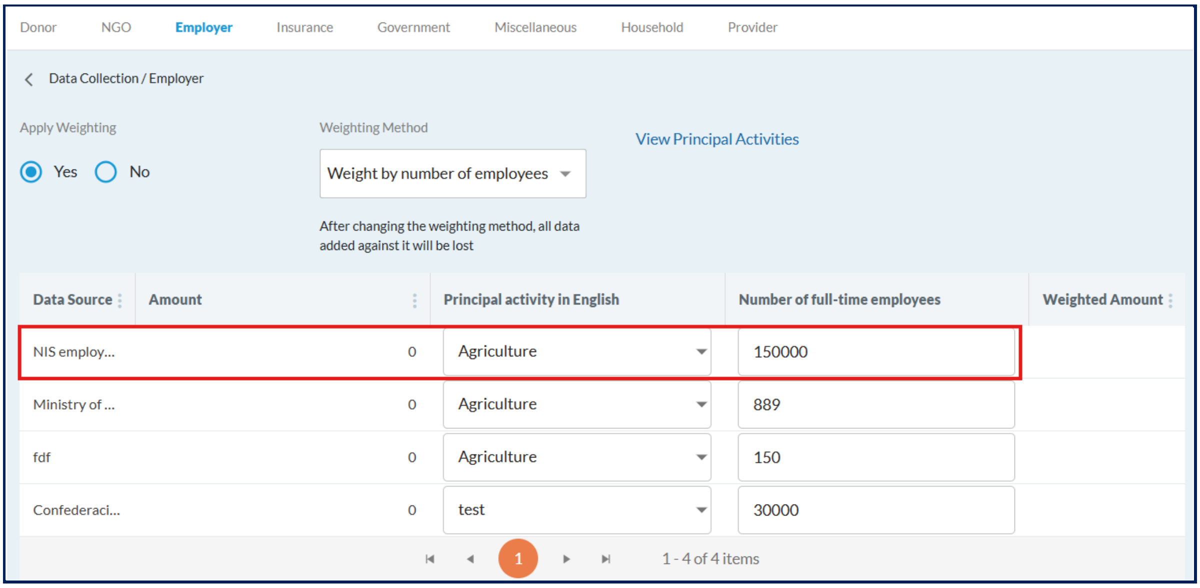


Fig. 5.123. Entering the number of employees

3. Click **SAVE**.

Fig. 5.124. Saving the weighting data

4. Click **APPLY** to apply the weighting logic.

Fig. 5.125. Applying a weighting

The weighted amount is displayed.

5.6.2.3 Weighting data manually (Employer)

Depending on experience and calculations outside the tool, you may be aware of weights that need to be applied. So, in this method, the weights are applied manually. Table 5.17 shows the calculation of the weighted amount for the manual weight.

Table 5.17. Weighted Amount Calculation for Manual Weight

Employer	Amount	Weight	Weighted amount
A	2 000	2	2 000 × 2 = 4 000
B	ND	-	NA
C	5 000	1.5	5 000 × 1.5 = 7 500
D	ND	-	NA
E	ND	-	NA
F	8 000	0.7	8 000 × 0.7 = 5 600
G	ND	-	NA
H	12 000	1	12 000
I	ND	-	NA

NA: not applicable; ND: no data

The weighted amount is calculated by using following formula:

$$\textit{Weighted amount} = \textit{Amount for data source} \times \textit{Weight}$$

Weighted amounts for data sources are:

- Data source: Employer A: 4 000

- Data source: Employer C: 7 500
- Data source: Employer F: 5 600
- Data source: Employer H: 12 000

To apply weight manually, follow these steps.

To open the weighting page, refer to Weighting data by number of employers, steps 1 to 3.

1. Select **Weight manually** from the ***Weighting Method*** drop-down list.

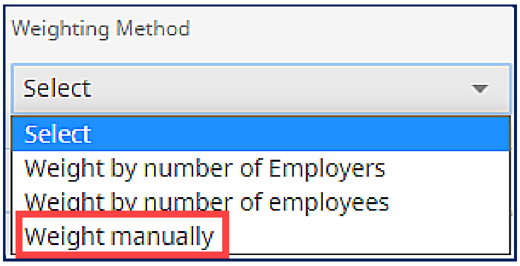
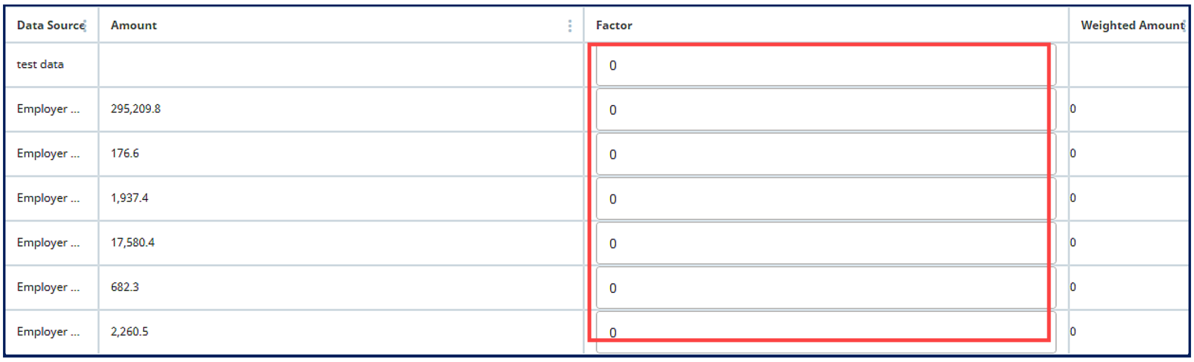


Fig. 5.126. Weighting manually

2. Enter the weights for the relevant data sources, and then click **SAVE**.



Data Source	Amount	Factor	Weighted Amount
test data		0	
Employer ...	295,209.8	0	0
Employer ...	176.6	0	0
Employer ...	1,937.4	0	0
Employer ...	17,580.4	0	0
Employer ...	682.3	0	0
Employer ...	2,260.5	0	0

Fig. 5.127. Entering a weighting factor

3. Click **APPLY** to apply the weighting logic.

Fig. 5.128. Applying weighting

5.6.2.4 Selecting principal activities

An employer can be from various sectors like agriculture, transportation, retailer, wholesaler and financial. Sector type categorizes the data source. To select a principal activity for a particular employer, follow these steps.

To open the weighting page, refer to Weighting data by number of employers, steps 1 to 3.

1. Select **Weight by number of employers** from the ***Weighting Method*** drop-down list.
2. Select **Principal activity** from the ***Principal activity in English*** drop-down list.

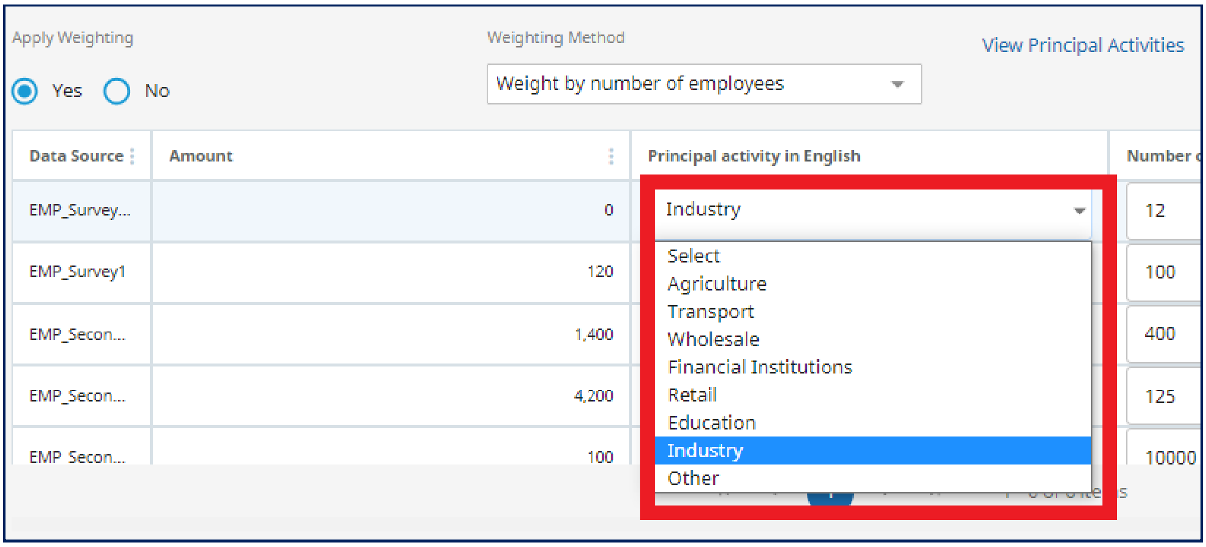


Fig. 5.129. Selecting industry type

3. Click **SAVE**.

Fig. 5.130. Saving the industry type

4. Click **APPLY**.

Fig. 5.131. Applying the selection

Note

The industry type can be selected for both the weighting methods: “Weight by number of employee” and “Weight by number of employer”.

5.6.2.5 Editing principal activities

To edit the principal industry for the employer, follow these steps.

To open the weighting page, refer to Weighting data by number of employers, steps 1 to 3.

1. Click **View Principal Activities**.

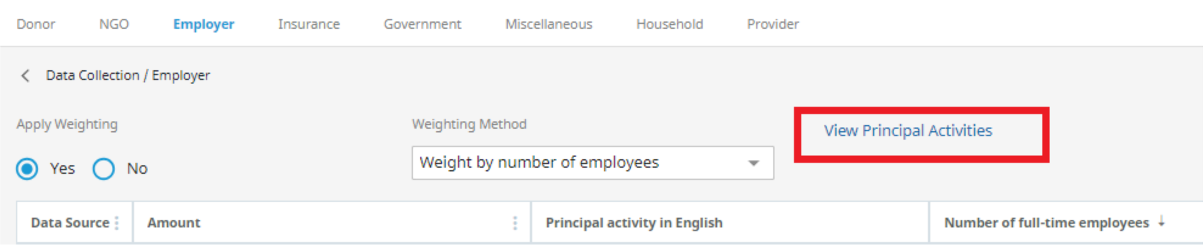


Fig. 5.132. Viewing the principal activities

2. Select the industry type from the list. Click the edit icon ().
3. Enter the sector name in the field. The principal activity label can be edited in any language, but can be translated into other languages if necessary.

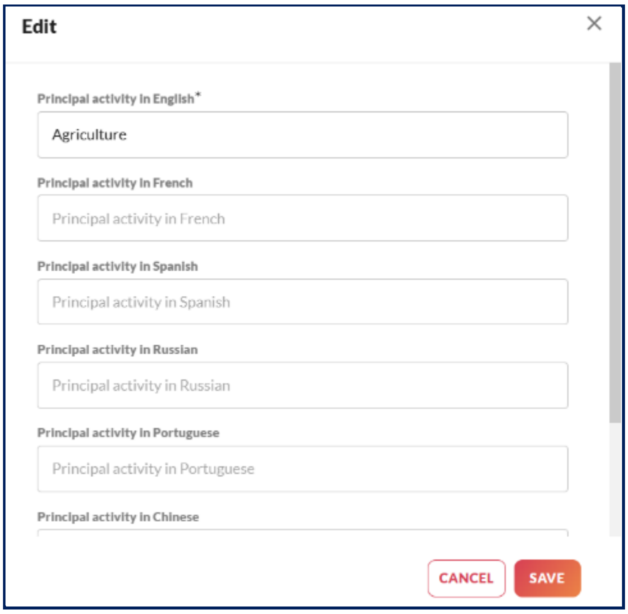


Fig. 5.133. Editing the sector name

4. Click **SAVE**.

Fig. 5.134. Saving sector name changes

5.6.2.6 Adding a new principal activity

A new sector type can also be added in HAPT. To add a type, follow these steps.

To open the view industry type option, refer to Editing principal activities, steps 1 to 2.

1. Click **Add Principal Activity**.

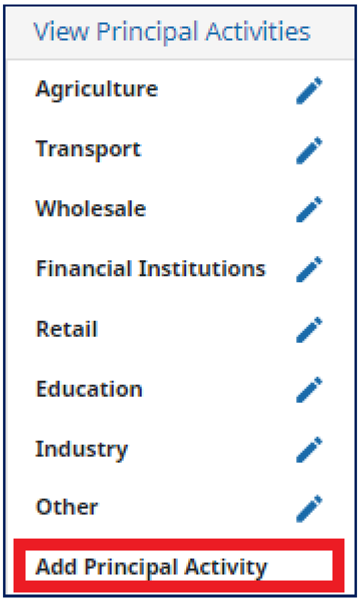


Fig. 5.135. Adding a principal activity

2. Enter the sector name in the "Principal activity" field.

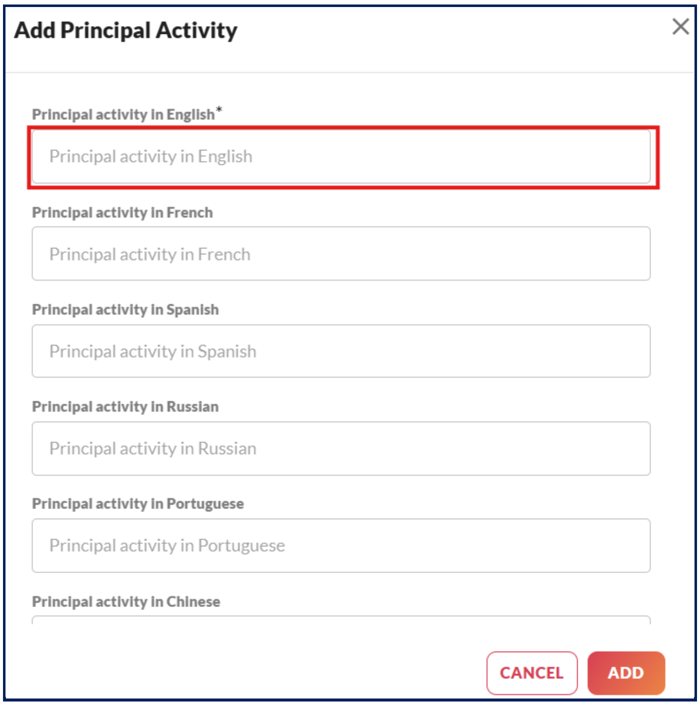


Fig. 5.136. Entering the sector name

3. Click **ADD**.

Fig. 5.137. Saving the principal activity

5.6.3 Weighting insurance data

For countries that have many private insurance companies, the HA team may decide to collect health expenditure data from a sample of companies and then apply weighting. The weighting procedure for health insurance companies is similar to those for NGO and employer.

5.6.3.1 Weighting data by number of insurance companies

You can categorize companies into different groups, and provides a value for the number of insurance companies, and then calculate weights based on number of insurance companies as follows:

$$Weight = \frac{Total\ number\ of\ insurance\ companies\ in\ the\ group}{Number\ of\ insurance\ companies\ that\ provided\ data}$$

Table 5.18 shows the calculation of weighted expenditure for the number of insurance companies. For example, for the data source “A*A”, the weight = 2 (insurance companies in the group 1) / 1 (number of insurance companies with data) = 2.

Table 5.18. Weighted expenditure calculation using number of insurance companies

Data source	Amount	Group	Number of insurance companies	Weighted amount
A*A	20 000	1	1	20 000 × (2/1) = 40 000
LIC	ND	2	1	NA
New insurance	10 000	2	1	10 000 × (2/1) = 20 000
ABC	ND	1	1	NA

NA: not applicable; ND: no data

Note: A*A, LIC and ABC are example names for insurance companies.

The weighted amount is calculated by using following formula:

$$Weighted\ amount = Amount\ for\ data\ source \times Weight$$

For example:

- $Weighted\ amount\ for\ A^*A = 20\ 000 \times 2 = 40\ 000$

5.6.3.2 Weighting data by number of individuals covered by health insurance

For this, the HA team must know the number of individuals covered under health insurance for each insurance companies. Depending on this input, the weighting for insurance is calculated.

$$Weight = \frac{Number\ of\ individuals\ covered\ by\ health\ insurance\ for\ all\ data\ sources\ in\ the\ group}{Number\ of\ individuals\ covered\ under\ health\ insurance\ that\ provided\ data\ in\ the\ group}$$

Table 5.19 shows the calculation of weighted expenditure for the number of individuals covered by health insurance.

Table 5.19. Weighted expenditure for number of individuals covered by health insurance

Data source	Amount	Groups	Number of individuals covered under insurance	Weighted amount
Insurance A	0	1	90 (input by user)	NA
Insurance B	882	1	1 000	1 289.07
Insurance C	468	1	50 (input by user)	683.74
Insurance D	702	1	45	1 025.62
Insurance E	1 000	0	ND	NA

NA: not applicable; ND: no data

For example, for the data source “A*A”, the weight = (number of individuals covered by health insurance in all data sources of group 1) / (number of individuals covered in data sources with expenditure amount data in group 1) = (90 + 100 + 50 + 45)/(100 + 45 + 50) = 285/195 = 1.461.

The weighted amount is calculated by using following formula:

$$Weighted\ amount = Amount\ for\ data\ source \times Weight$$

Weighted amounts in this example:

- Insurance B = 882 × 1.461 = 1 289.07
- Insurance C = 468 × 1.461 = 683.74
- Insurance D = 702 × 1.461 = 1 025.62

5.6.3.3 Weighting data manually (Insurance)

The weighting is similar to manual weighting for NGOs. Refer to Weighting data manually (NGO).

5.6.4 Weighting provider data

5.6.4.1 Weighting data by health spending (Provider)

The weighting is similar to health spending for NGOs. See Weighting data by health spending (NGO).

5.6.4.2 Weighting data manually (Provider)

The weighting is similar to manual weighting for NGOs. Refer to Weighting data manually (NGO).

6. MAPPING module

The MAPPING module is available when a study is opened.

Mapping helps to assign appropriate codes to each expenditure data point. The MAPPING module includes many features, functions, and menus to assist you in mapping data.

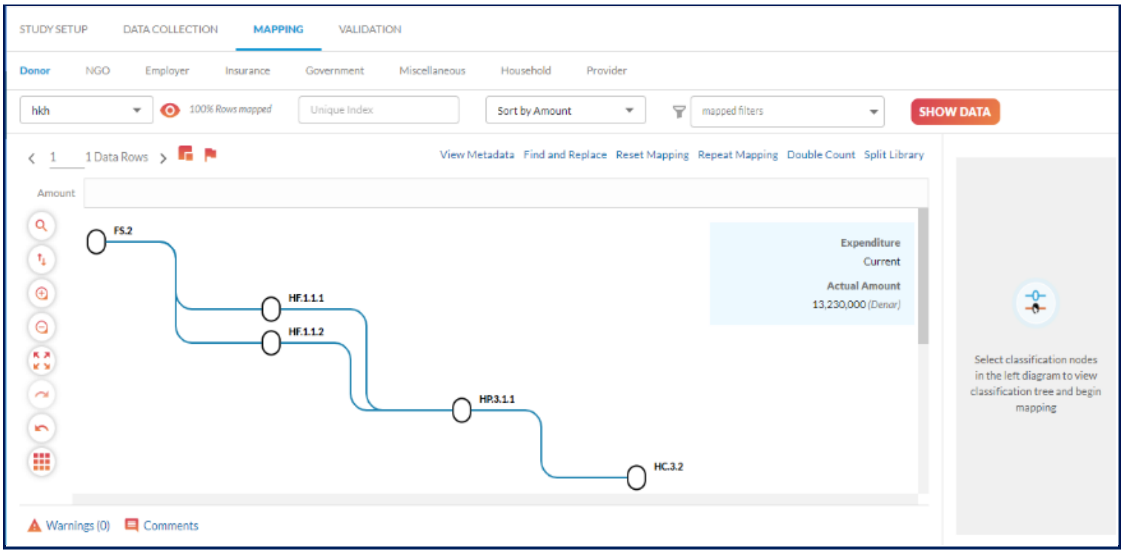


Fig. 6.1. MAPPING module

The MAPPING module is divided into two parts:

1. *Mapping options* pane: This pane allows you to select data sources, select amount types and apply filters. It also has a **SHOW DATA** button, to trigger displays of the mapping tree on the display pane.

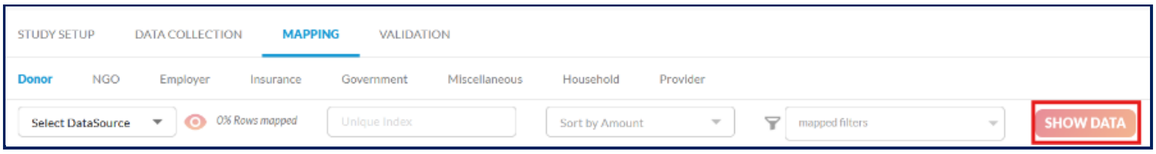


Fig. 6.2. *Mapping options* pane

2. *Mapping display* pane: This pane displays the mapping tree for a given expenditure data row for imported data sources of a selected data source type.

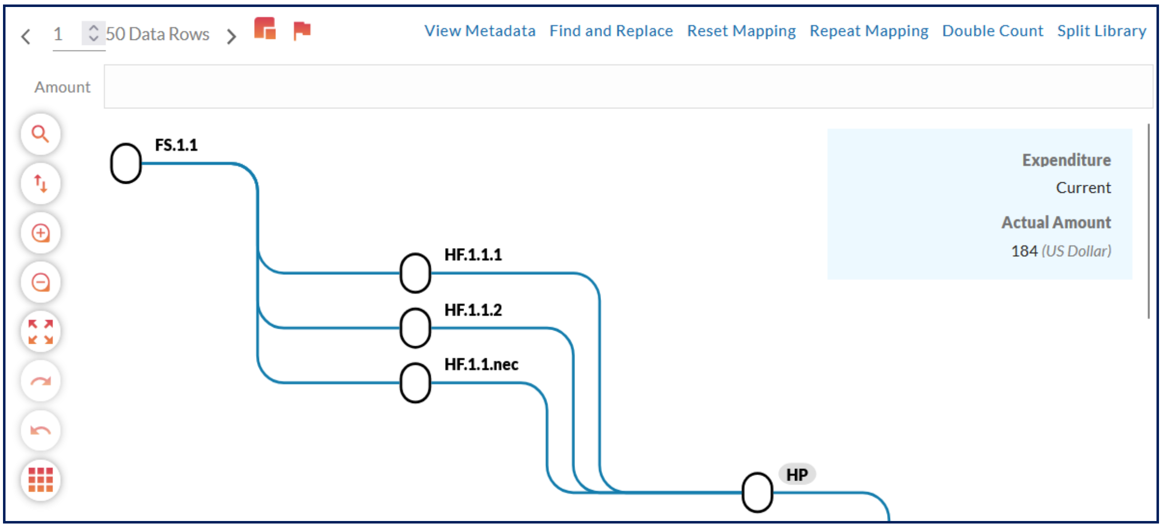


Fig. 6.3. *Mapping display* pane

You can view the mapping tree for each data row of the selected data source.

The mapping tree is displayed for first data source of the first data source type. Whenever you change a data source within the data source type, the mapping tree for first data row for the data source is shown, allowing for any applied filters.

When you change a data source type, the mapping tree for the first data source is displayed.

To filter the mapping tree, follow these steps.

1. Click **MAPPING**.

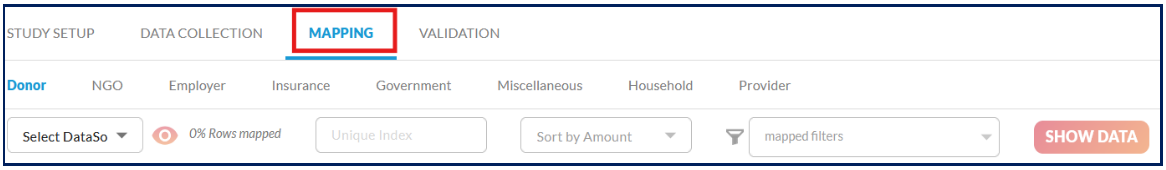


Fig. 6.4. Viewing data row mapping

Table 6.1 shows the fields, buttons and icons present on the MAPPING module.

Table 6.1. Description of fields and buttons for the MAPPING module

Field/button name	Description
Select Data Source	Allows selection of the data source from the selected data source type.
Percentage of rows mapped	Shows the percentage of data rows mapped. (Changes based on applied filters.)
Unique Index	Numeric identifier of the data row, determined automatically in the DATA COLLECTION module.
Sort by Amount	Allows selection of an option for sorting data rows according to their amount.
 mapped filters	Allows application of filters from the list.
SHOW DATA	Shows the mapping tree of a data rows with the applied filters.

2. Select the data source from the ***Select Data Source*** drop-down list.

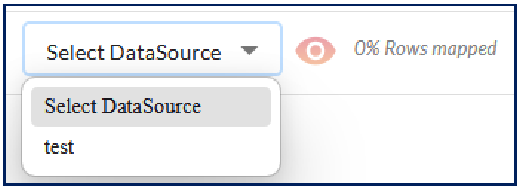


Fig. 6.5. Selecting a data source

3. Select the amount type from the ***Sort by Amount*** drop-down list.

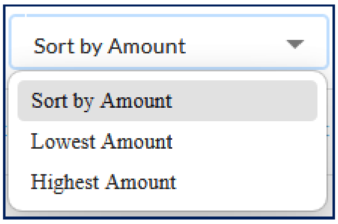


Fig. 6.6. Selecting the amount type to sort by

Table 6.2 shows the various amount types present on the ***Sort by Amount*** drop-down list.

Table 6.2. Description of fields for *Sort by Amount*

Field/button name	Description
Lowest Amount	Sorts data rows within the data sources, showing the data row with the lowest amount first (sorted from lowest to highest).
Highest Amount	Sorts data rows within data source, showing the data row with the highest amount first (sorted from highest to lowest).

4. Select the required filter from the ***mapped filters*** drop-down list.

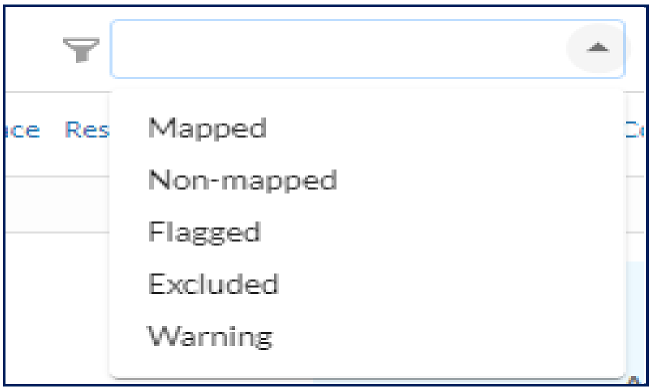


Fig. 6.7. Selecting mapped filters

Table 6.3 shows the various filters for the data rows in a mapping tree.

Table 6.3. Description of fields when selecting mapped filters

Field/button name	Description
Mapped	Shows data rows that are mapped. Data rows in which all classifications are mapped (except the reporting item classification) are considered as mapped data rows.
Non-mapped	Shows data rows that are not mapped. Data rows in which at least one classification is not mapped are considered as non-mapped data rows.
Flagged	Shows data rows that are flagged.
Excluded	Shows data rows that are excluded.
Warning	Shows data rows on which warnings are applied.

5. Click **Show data**.

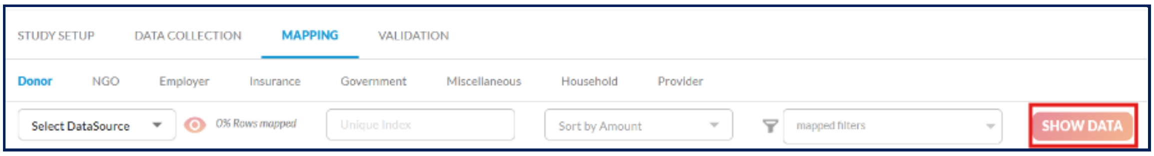


Fig. 6.8. Displaying the data row mapping

The mapping tree is displayed, allowing for the applied filters.

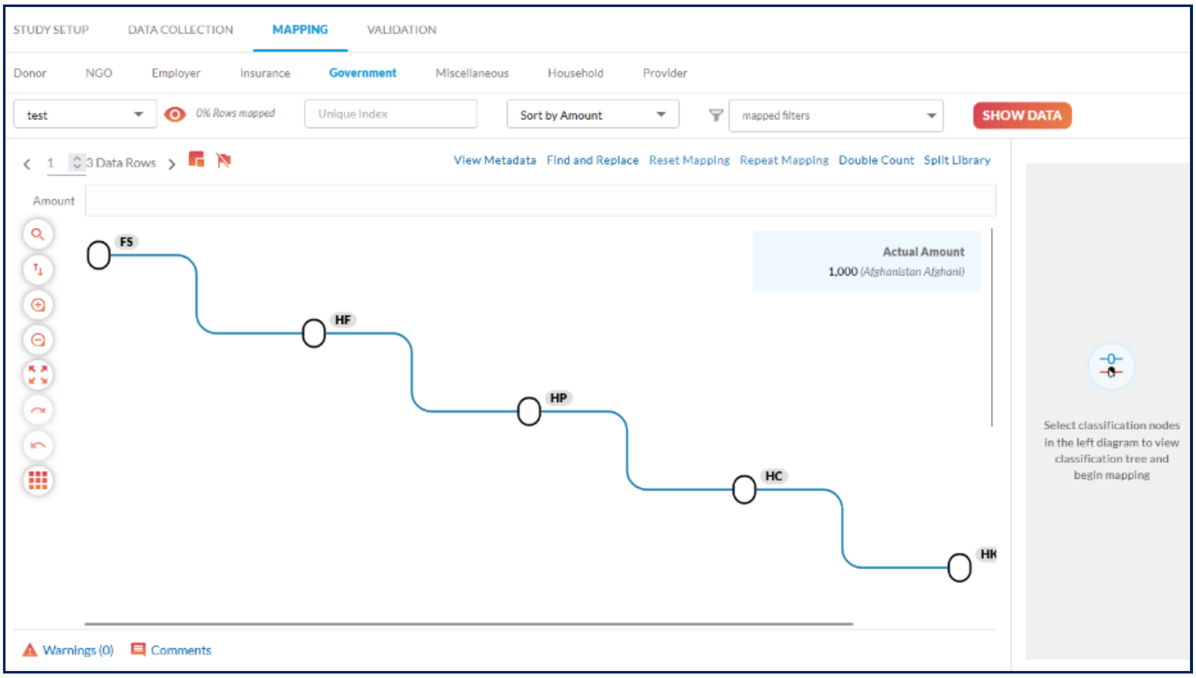


Fig. 6.9. A mapping tree

Note

- When a filter or sort is applied, you must click **SHOW DATA**.
- You can remove sorting by clicking on the drop-down and selecting "Select amount type" and clicking **SHOW DATA**.
- You can remove filters by clicking on the small 'x' icon (e.g. Mapped ✕) and clicking **SHOW DATA**.
- If a data source type has only **one** data source, that data source is automatically preselected when you click on a data source type.
- A TL can set a classification as a reporting item from **SETUP**. If this classification is selected for study, and if this classification is only one not mapped, but other all do, then the data row is considered as fully mapped. When adding a reporting item from **SETUP**, the TL will add suffix to the classification so that a TL can easily identify any reporting items.

6.1 Performing mapping

To perform mapping, follow these steps.

1. Click on the classification node to select it for mapping. The node will turn dark, which means it is selected.

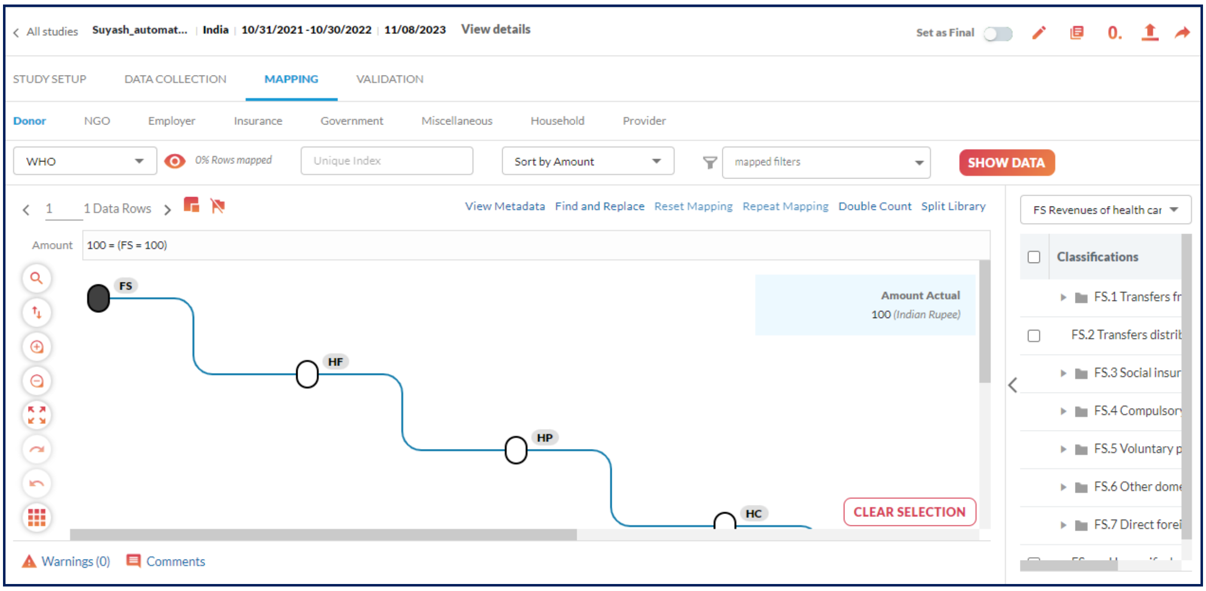


Fig. 6.10. Selecting a node for mapping

The list of categories under the selected classification appears in the right pane.

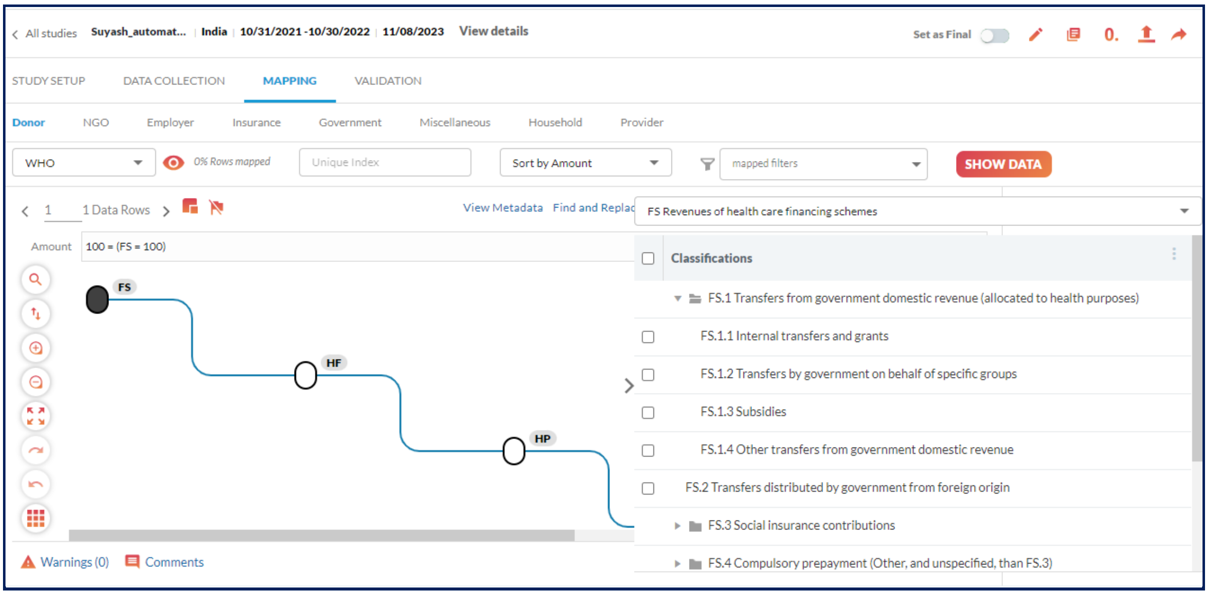


Fig. 6.11. Displaying the list of categories

2. Select the category from the list by checking its check box and click **MAP**.

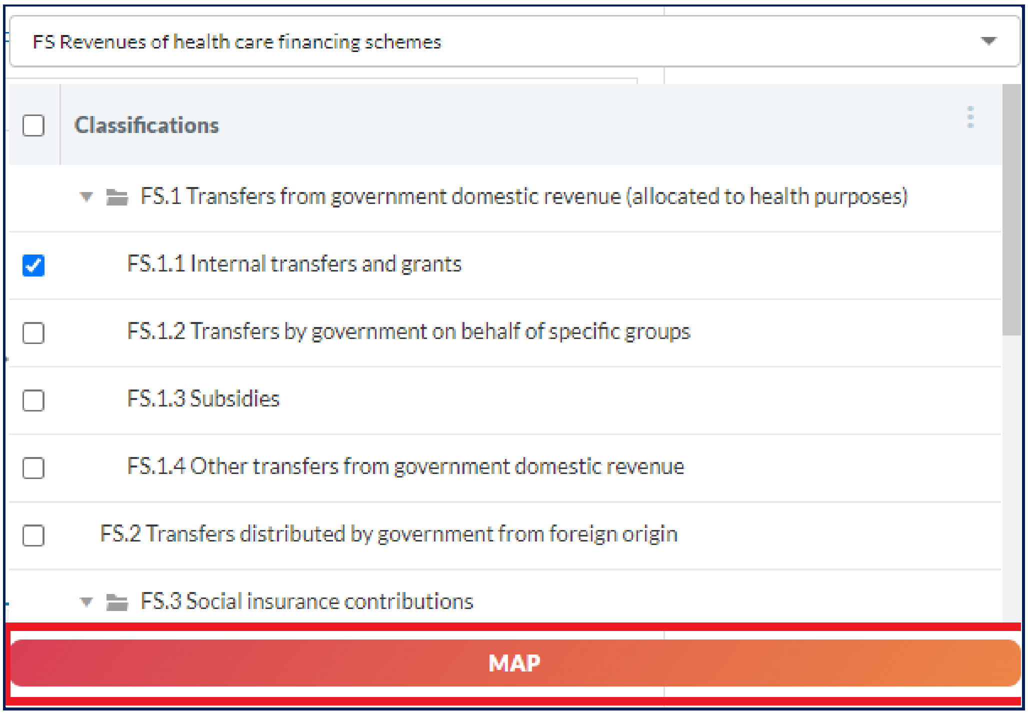


Fig. 6.12. Selecting a category for mapping

The category is mapped successfully.

Note

If you select more than one category for mapping, you must define a split rule. To apply a split rule, refer to Adding a split rule while mapping data from Adding a split rule.

4. To view details in a mapping tree, click on the mapped category code. You get the label of the specific code and also the upper flow code and amount.

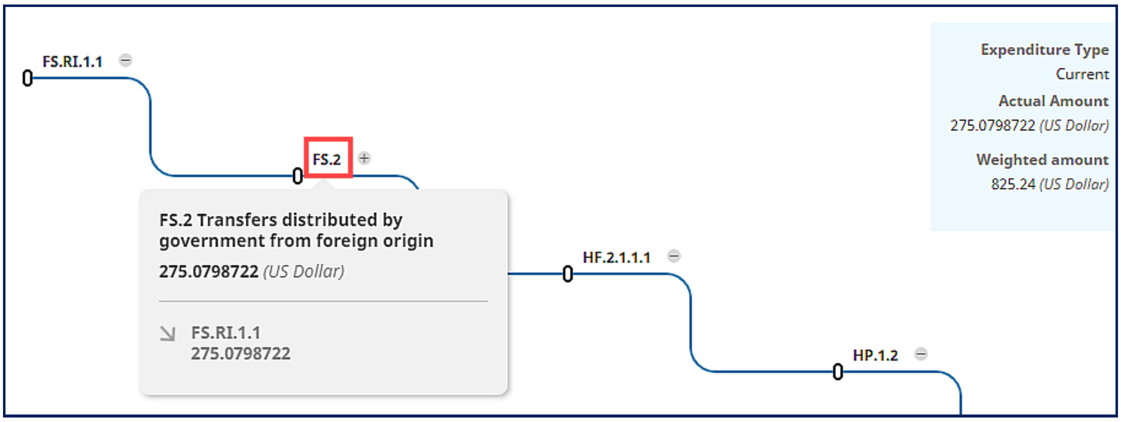


Fig. 6.13. Viewing category details

5. To unmap the node, select it and click **UNMAP**.

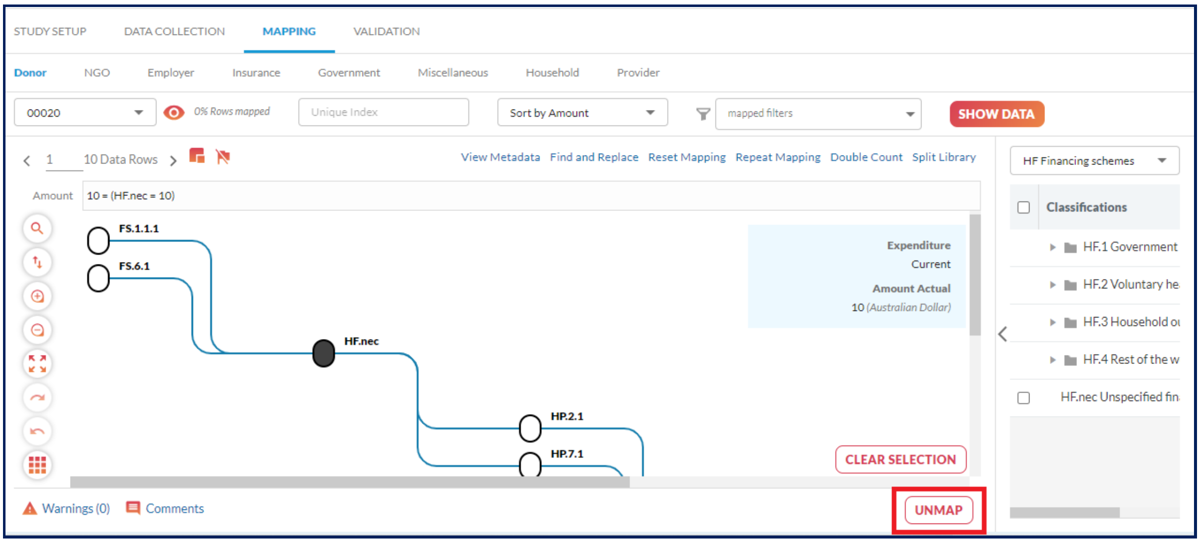


Fig. 6.14. Selecting UNMAP

Note

The **UNMAP** button appears only after selecting a node that is already mapped.

The confirmation message is displayed.

Note

- Upon selecting a mapped/non-mapped node, the expenditure type and actual / budget amount of the data row are displayed in the top-right corner of mapping pane, as shown in Fig. 6.15.
- In the DATA COLLECTION module, the data types are defined for data sources. Depending on the data type for the expenditure, the amount is categorized as an actual amount or a budget amount.

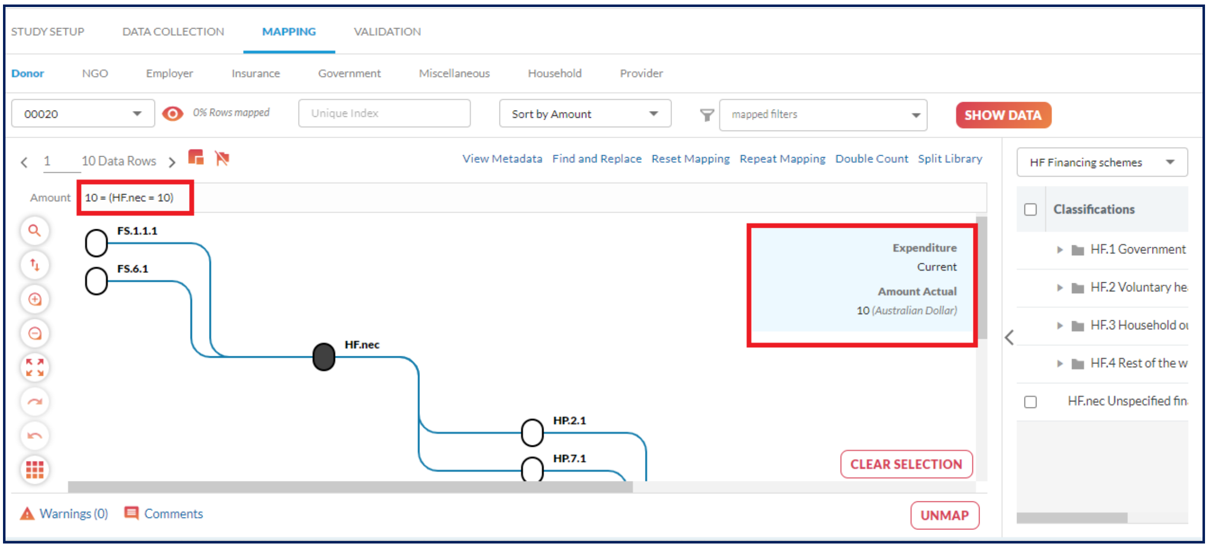


Fig. 6.15. Viewing expenditure type

To map a category of one classification (for example HP) that crosses with a combination of categories from other classifications (for example FS and HF), you can first select a flow (select multiple nodes connected together from those different classifications, FS and HF), choose the classification you want to map under the "Classifications" heading on the right, and code that particular expenditure category (HP.7.1 in this example).

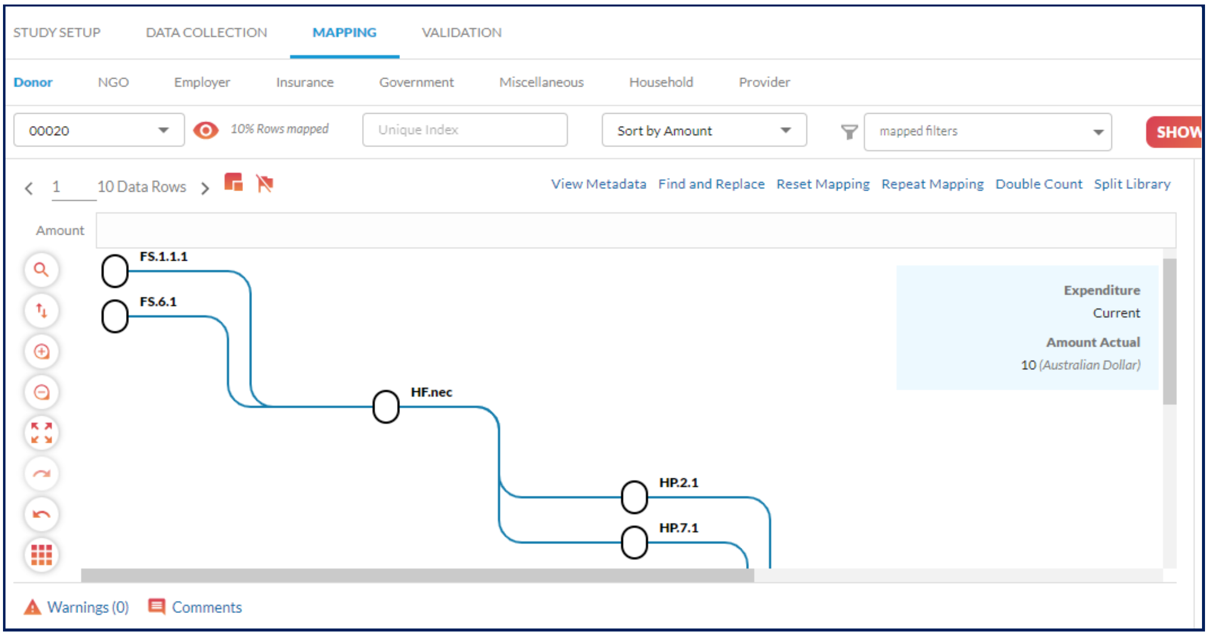


Fig. 6.16. Mapped data row

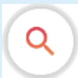
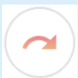
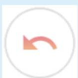
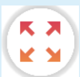
Note

- When selecting multiple nodes, only map the expenditure flowing through the selected nodes.
- When selecting multiple nodes, you can select only a classification that is not mapped (or partially not mapped).

6.2 Features in mapping

In mapping, various features are provided to view, search, edit, and modify data rows in a mapping tree. These features make it easy to perform mapping, and they enhance the user experience. Table 6.4 shows the fields, buttons and icons present on the MAPPING module.

Table 6.4. Description of fields, buttons and icons in the MAPPING module

Field/button/icon	Field/button name	Description
	Eye icon	Shows a combined mapping tree of the data source based on the expenditure type.
	Search on map	Searches a classification or matching classification item for a code or name present in the mapping tree.
	Reorder	Reorders the sequence of classification during mapping.
	Undo	Cancels the last changes done to a mapping tree.
	Redo	Reverts to previous changes done to the mapping tree.
	Zoom in	Zooms in to the mapping tree to view the specific part of a health study.
	Zoom out	Zooms out from the mapping tree to view the specific part of a health study.
	Full screen	Shows the diagram on full screen.
	Data grid view	Shows the mapped data in a tabular format.

6.2.1 Eye icon

The eye icon shows the mapping tree not only for the selected row, but of the whole selected data source, based on the chosen expenditure type. To view the mapping tree of data source, follow these steps.

1. Click the eye icon ( ).
2. A new page is displayed. Click **SYNC DATA**.

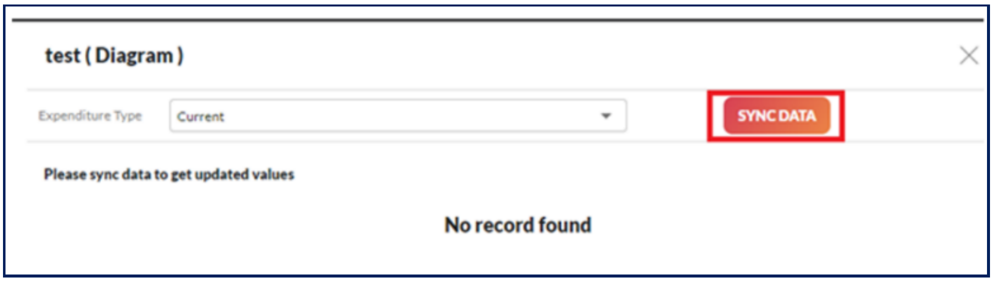


Fig. 6.17. The windows brought up by the eye icon

3. A confirmation window will open, click **YES**.

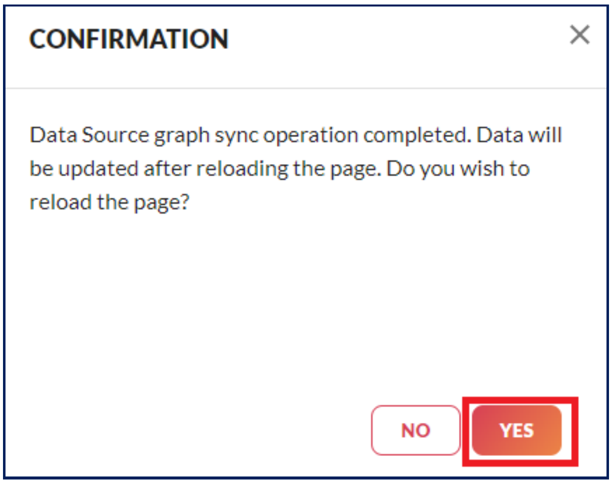


Fig. 6.18. Data source graph sync confirmation window

4. After the page refreshes, the MAPPING module is displayed. Select data source and again click the eye icon.
5. The mapping tree of the selected data source is displayed.

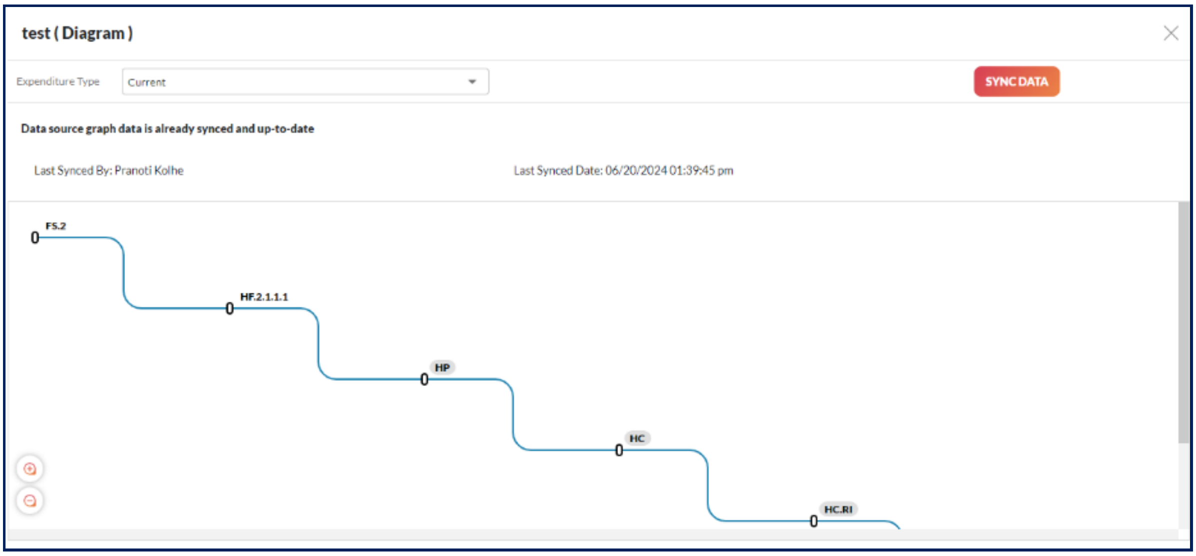


Fig. 6.19. An example mapping tree of a data source

6. To change “Expenditure type”, select the eye icon again and choose the expenditure type from the *Expenditure Type* drop-down menu.

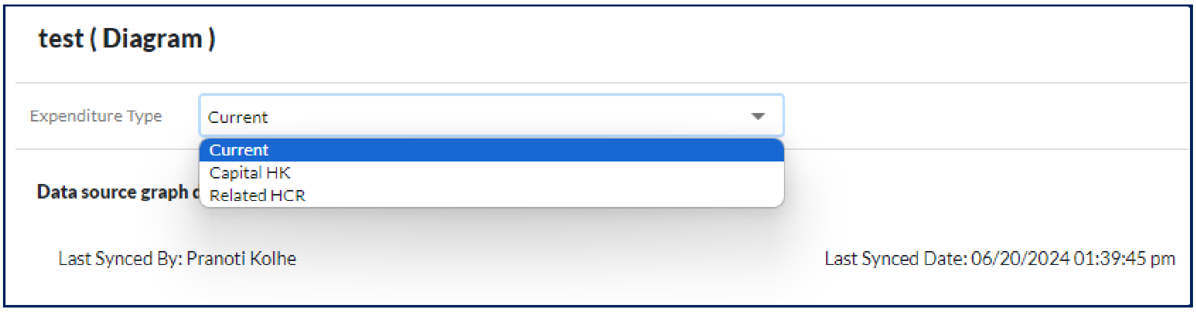


Fig. 6.20. Selecting an expenditure type

7. Click the exit icon (top-right; ╳) to go back the MAPPING module screen.

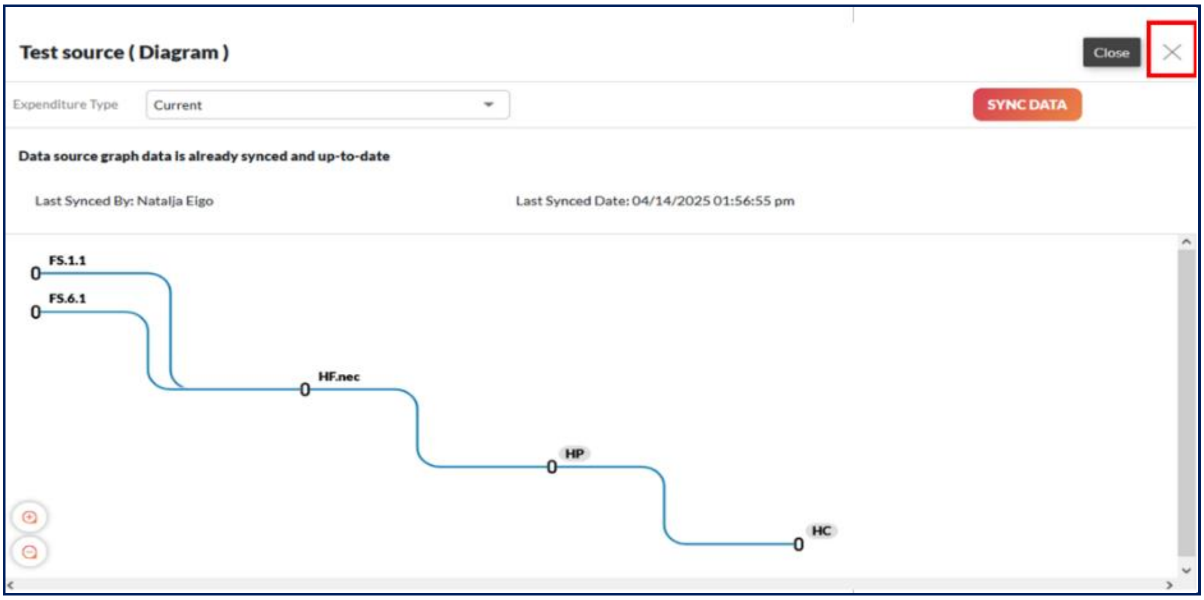


Fig. 6.21. Click the exit icon (top-right; ×)

6.2.2 Data grid view

The data grid view helps you view the mapping data in a tabular structure. All filters applied in a mapping tree are applied in the data grid view. To view data in data grid view, follow these steps.

1. Click the grid icon ( ).
2. Data for one data row is shown. To view data for all data rows, select the data rows from the left and click **SHOW DATA**.

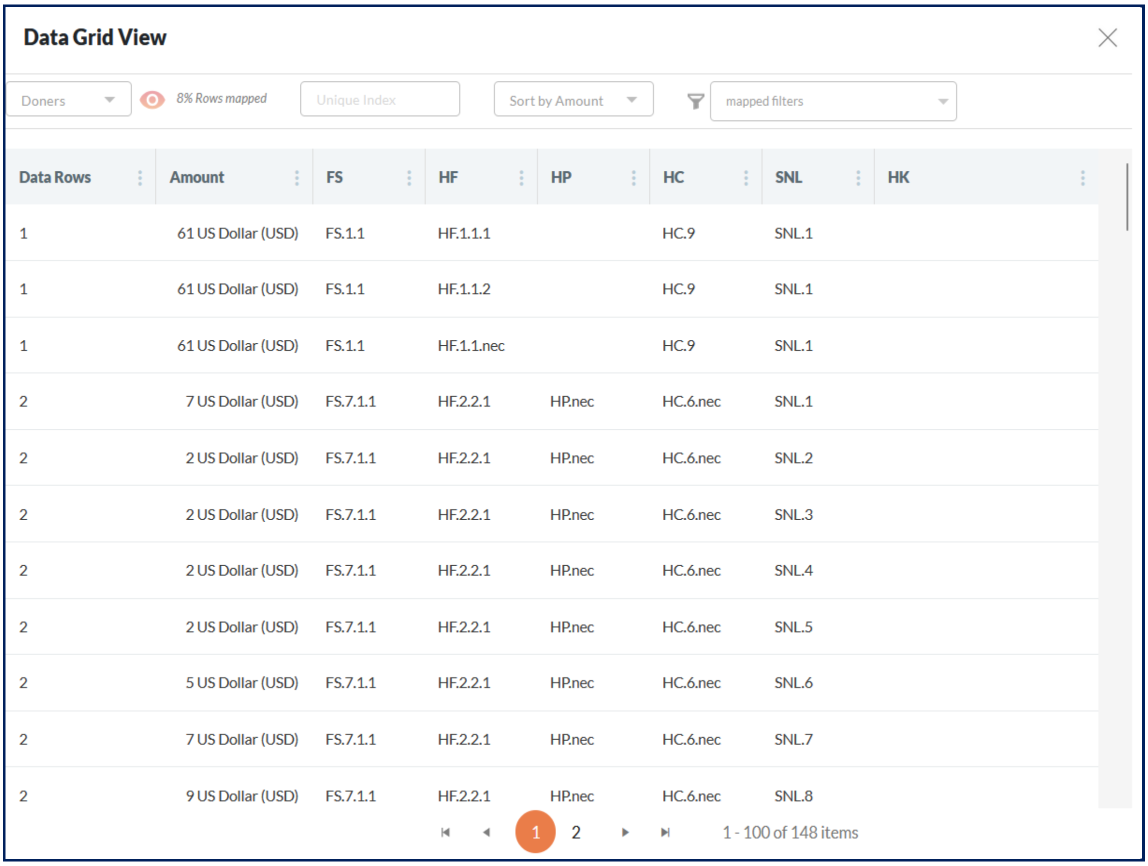


Fig. 6.22. The *Data Grid View* screen

6.2.3 Viewing metadata

Metadata is information additional to data collected from surveys and secondary data in Excel files. Refer to List of metadata fields for all data source types by survey (Annex 1) and List of metadata fields of all data source types by secondary data source (Annex 2) to view the list of metadata fields. To view metadata, follow these steps.

1. On the MAPPING module, click **View Metadata**.

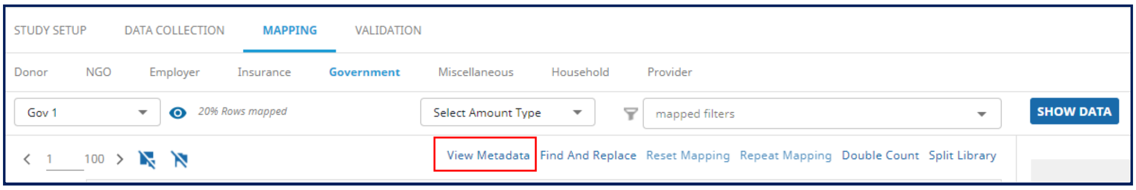


Fig. 6.23. Selecting View Metadata

The ***Metadata*** screen is displayed.

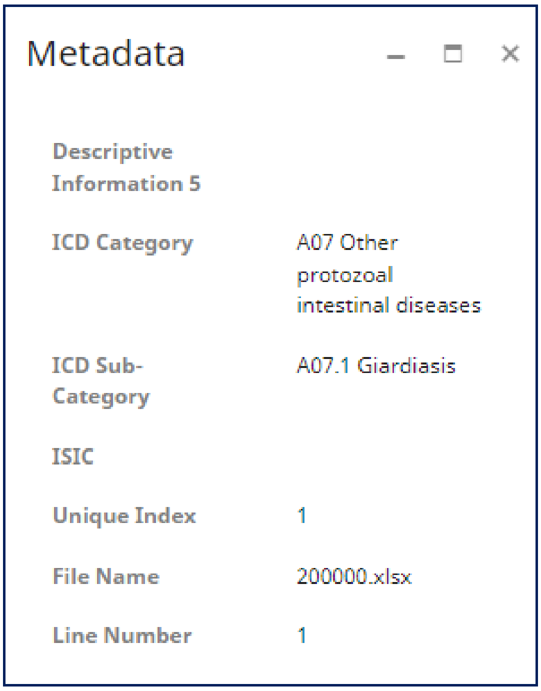


Fig. 6.24. An example *Metadata* screen – the details vary with context

Note

- You can move the ***Metadata*** screen and continue to have it displayed while mapping and navigating through data rows in the mapping tree.
- Only the section for which a data row is created is displayed when viewing metadata.
- If there are several capital expenditures captured in survey, then the ***View metadata*** pop-up shows the general information and metadata related to capital expenditure as "Capital expenditure – Expenditure 1" for data row 1, "Capital expenditure – Expenditure 2" for data row 2, etc.

6.2.4 Split library

All split rules and patterns can be stored in the split library at the country level and can be used for the same country for different years The split rules can also be only stored at the study level and be used within the same study.. Refer to Split rule and to Split pattern to view rules and patterns in **SETUP** at the country level.

6.2.4.1 Split rule

Split rules are used to split expenditure amounts among different categories using shares defined by the user. An expenditure amount can be split into more than two categories if required.

6.2.4.2 Adding a split rule

There are three methods of adding split rules.

1. From a split library. Refer to Adding a split rule from the split library.
2. While performing mapping. Refer to Adding a split rule while mapping data.
3. Importing from Excel. Refer to Importing a split rule from an Excel file.

6.2.4.2.1 Adding a split rule from the split library

To add a new split rule from the split library, follow these steps.

1. On the **MAPPING** module, click **Split Library**.

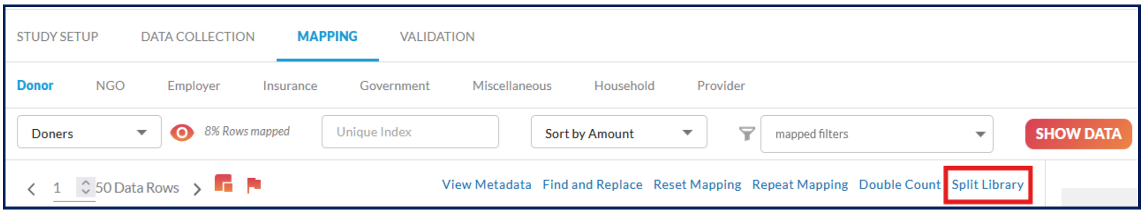


Fig. 6.25. Selecting Split Library

The ***Split Library*** page is displayed.

2. Click **ADD NEW RULE**.

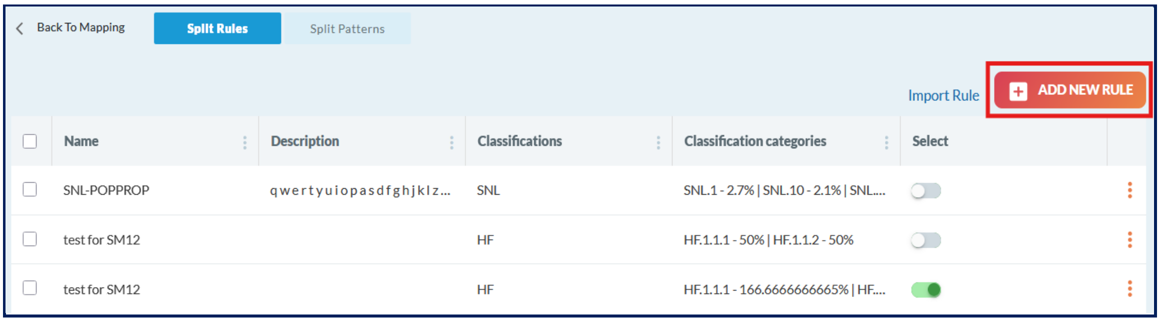


Fig. 6.26. Adding a new rule

The ***Add New Split Rule*** form is displayed.

3. Enter the split rule details in their respective fields, and then click **ADD**.

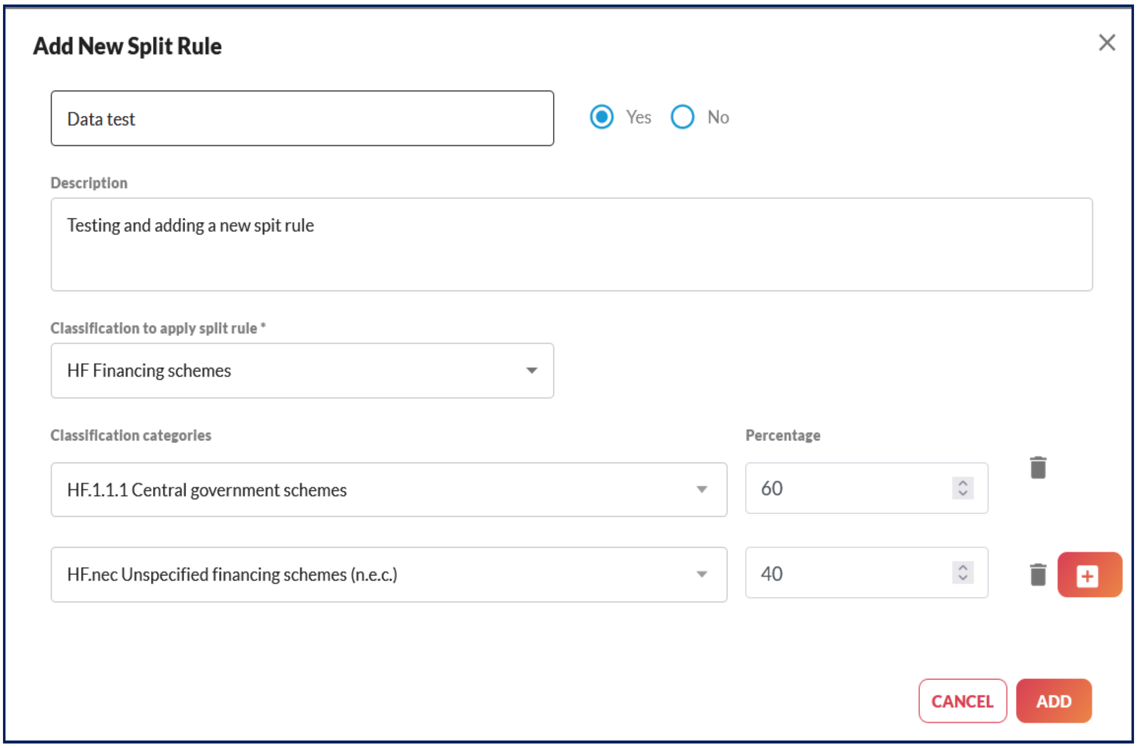


Fig. 6.27. The *Add New Split Rule* form

The new split rule is added successfully.

Note

- Split rules with the same categories and percentages but with different split rule names can be created in the split library.
- Click the trash ( ) next to a category to remove it from the list.
- Click the add icon ( ) next to a category to add it as a new one.
- There can be only one split rule with the same name, classification categories, and percentages. However, you can create a split rule with the same name but with different categories and percentages.
- When duplicating a study, the split rule name remains the same as in the original study.

Table 6.5 shows the fields and buttons present in the ***Add New Split Rule*** form.

Table 6.5. Description of fields in the *Add New Split Rule* form

Field/button name	Description
Split Rule Name	Allow entry of the name of a split rule.
Add a rule to country-level split library	Adds the rule to the country-level library.
Description	Allows entry of the description of the split rule.
Classification to apply the split rule	Allows selection of the classification to be split.
Classification category	Allows selection of the categories in which you want to split the classification chosen from the list. Categories can be added and deleted.
Percentage	Allows input of the percentage associated with each category included in the rule. Percentages are reported without the "%" sign. Percentages for all categories within a rule must sum to exactly 100.

6.2.4.2.2 Adding a split rule while mapping data

Split rules can be created while mapping data.

To add a new split rule, follow these steps.

1. Click on a node to select it for the mapping. The node will turn dark.

The classification window appears on the right side.

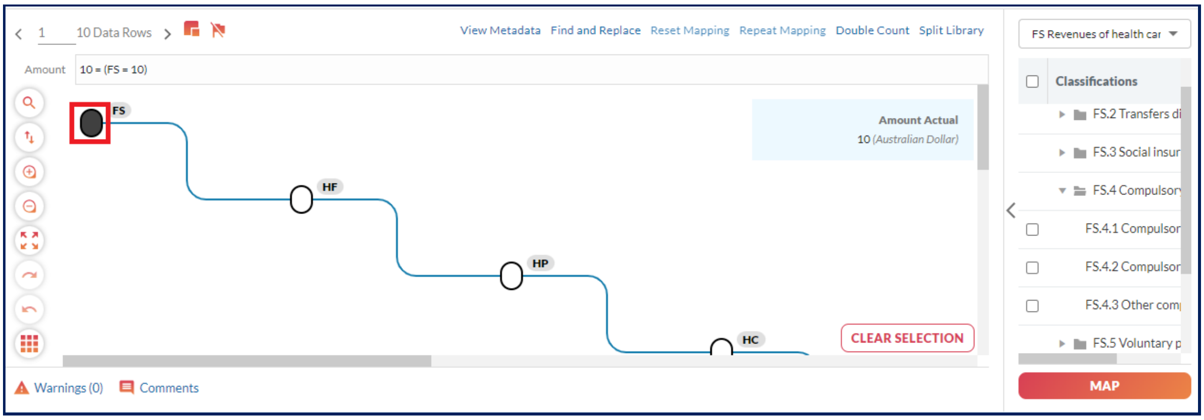


Fig. 6.28. Selecting a node for mapping

2. Select a category from the list. If you select more than one category for mapping, the **ADD NEW SPLIT RULE** button appears at the bottom.

3. Click **ADD NEW SPLIT RULE**.

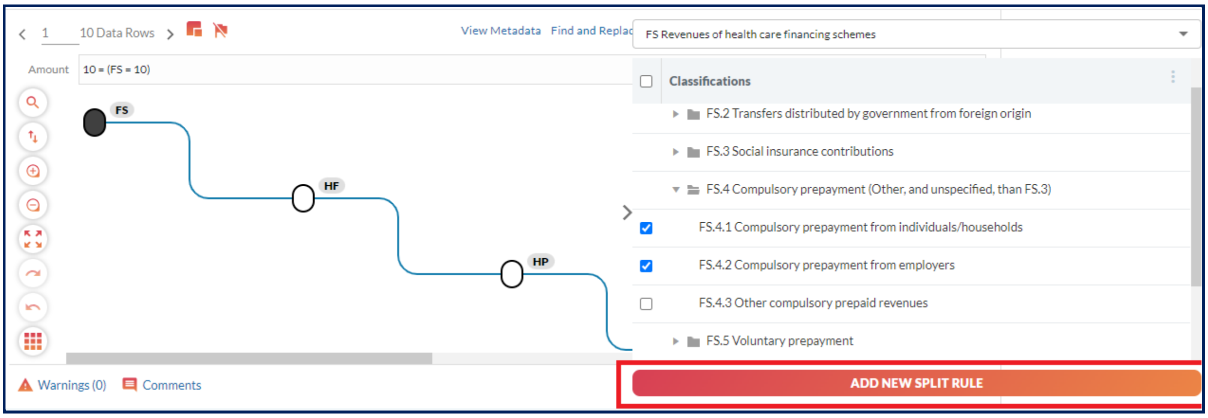


Fig. 6.29. Adding a new split rule

The *Add New Split Rule* form is displayed.

4. Enter the split rule details in their respective fields, and then click **ADD**.

If an amount is entered in the **Amount** field then the percentage is calculated automatically based on the amount (and vice versa if a percentage is entered).

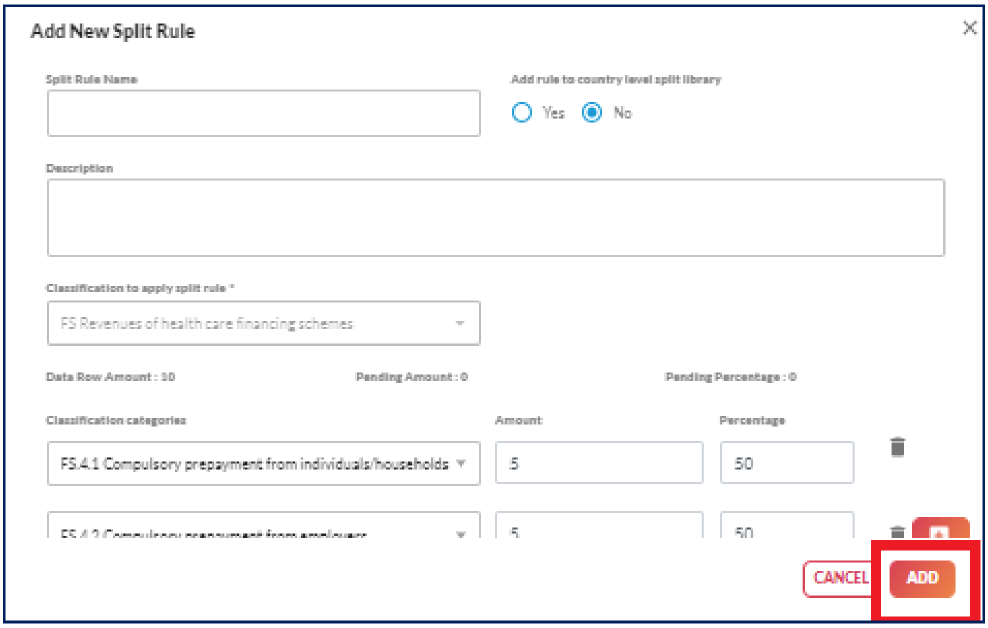


Fig. 6.30. The *Add New Split Rule* form

5. If a split rule with same categories and percentages does not exist, the new split rule is added to the split library and applied to the data row.

6. If a split rule with same categories and percentages but with a different split rule name exists, then the form with existing split rules is displayed.

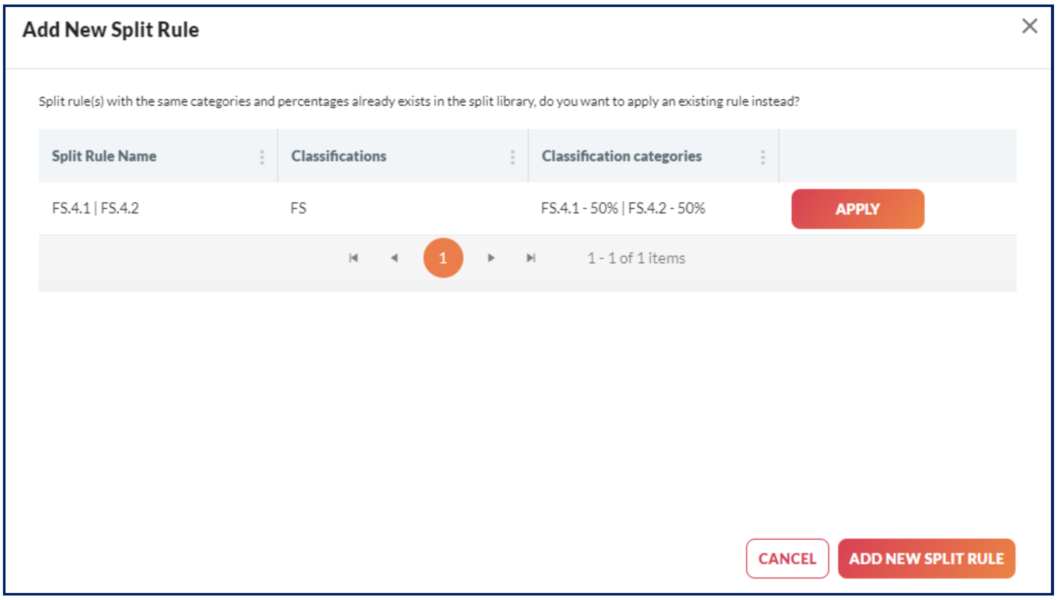


Fig. 6.31. The *Add New Split Rule* form, when an existing rule is found

8. To select an existing split rule, click **APPLY**.
9. To add a new split rule, click **ADD NEW SPLIT RULE**.

Table 6.6. Description of fields in the *Add New Split Rule* form

Field/button name	Description
Split Rule Name	Allows entry of the name of a split rule.
Add a rule to country-level split library	Adds the rule to the country-level library.
Description	Allows entry of the description of the split rule.
Classification to apply the split rule	Allows selection of the classification to be split.
Classification categories	Allows selection of the classification categories into which you want to split the classification chosen from the list. Classification items can be added and deleted.
Percentage	Allows input of the percentage associated with each classification category included in the rule. Percentages are reported without the "%" sign. Percentages for all categories within a rule must sum up to exactly 100.
Amount	Allows input of the amount associated with each classification category included in the rule. Amount for all categories within a rule must sum to the total amount.

Field/button name	Description
Total Amount	Shows the data row amount.
Pending Amount	Shows the pending amount entered for the category, given the data row amount or total amount
Pending Percentage	Shows the pending percentage entered for category with respect to 100.

Note

- Split rules with the same categories and percentages but with different split rule names can be created from the MAPPING module screen.
- Split rules displayed in the split library use percentages only.

6.2.4.2.3 Importing a split rule from an Excel file

To import split rules, follow these steps.

1. Click **Split Library**.

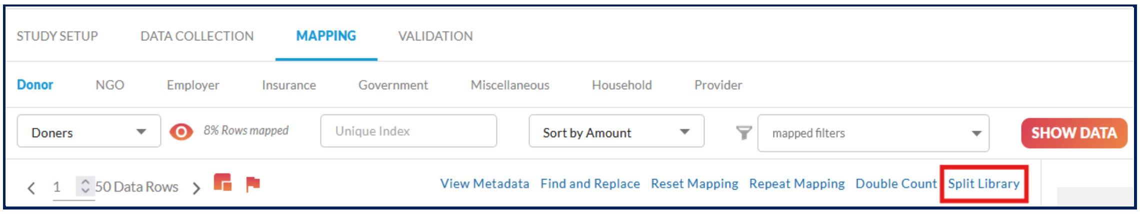


Fig. 6.32. Select Split Library

2. Click **Import Rule**.

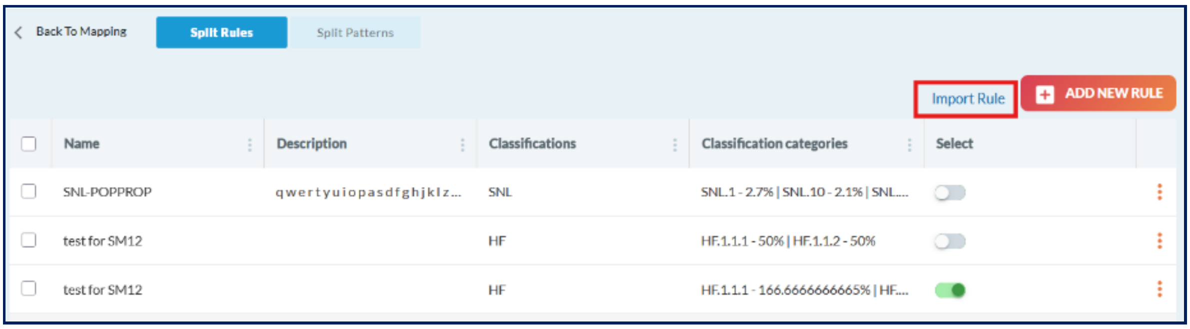


Fig. 6.33. Selecting Import Rule

3. Click **CHOOSE FILE**. Select the file to be imported

4. Select the desired Excel sheet

5. Bind the columns with their respective fields and click **IMPORT**. When columns are bound to their fields, a check mark appears in the right grid under the “Binding” column, and the colour of mandatory fields changes from red to black.

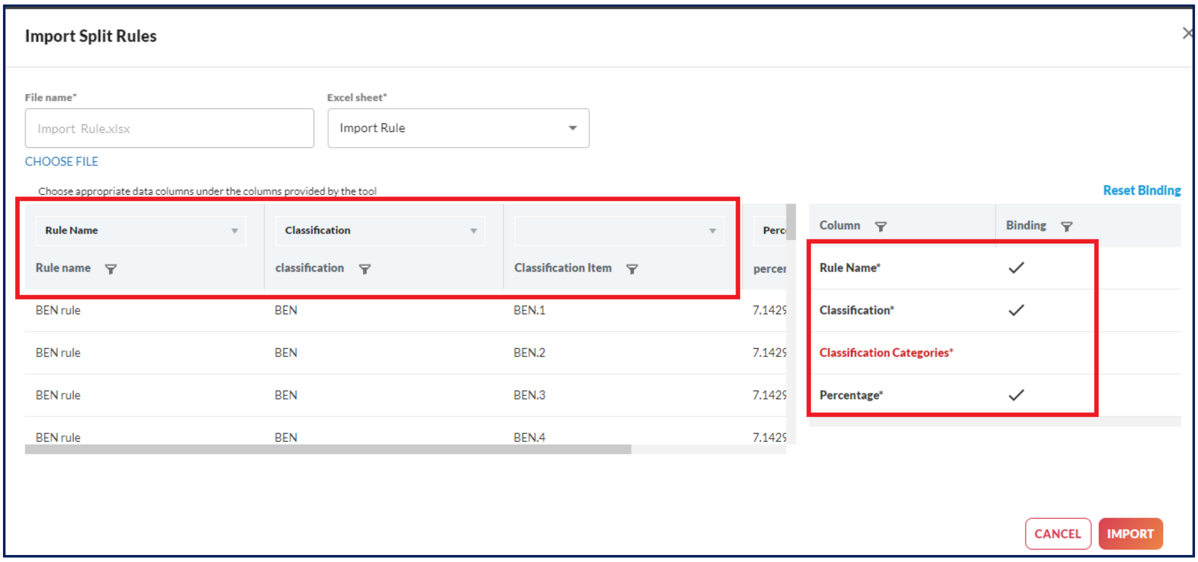


Fig. 6.34. The *Import Split Rules* screen

After a file is imported, a message is shown in the notifications section.

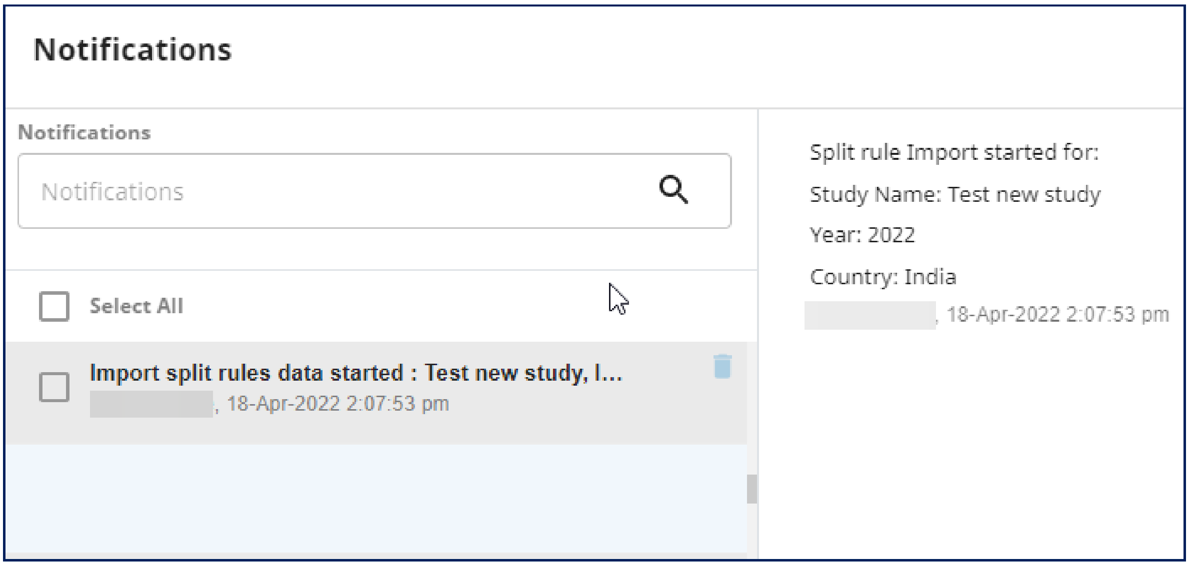


Fig. 6.35. Notification that import has started

A confirmation message is shown. You will be asked to reload the page to show the changes on the screen.

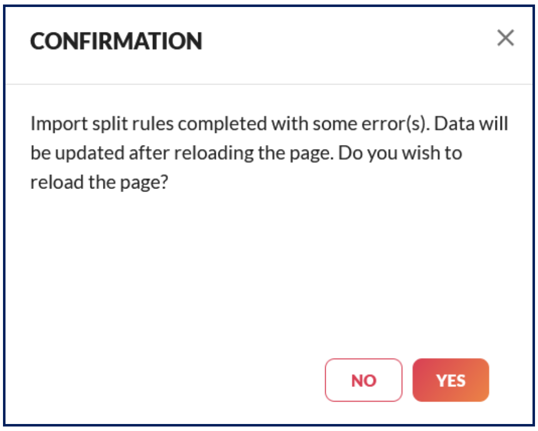


Fig. 6.36. Confirmation message shown after import

Clicking **YES** on the notification page refreshes the page, and imported split rules are displayed (the same split rule page is displayed after page reload). If you click **NO**, the page is not refreshed, and you must do a manual page refresh by reloading the browser.

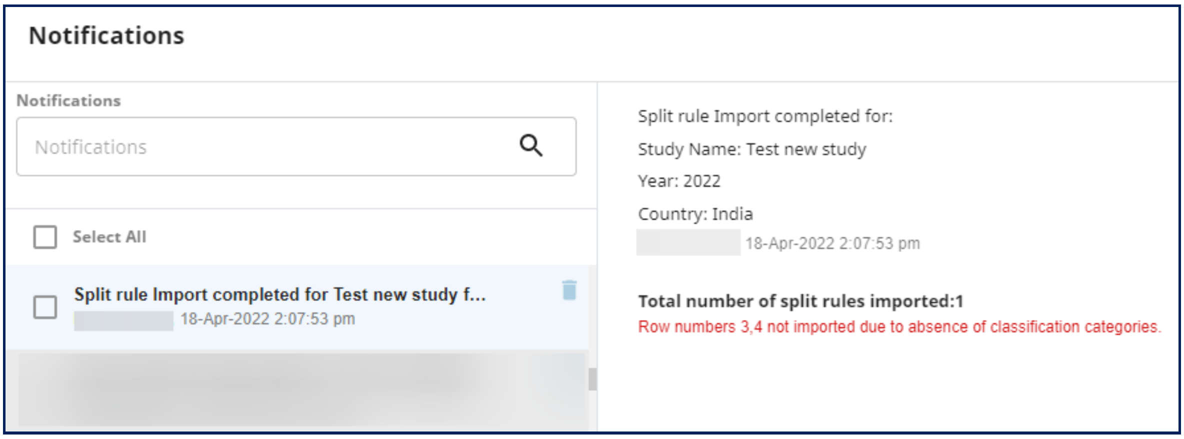


Fig. 6.37. Notification that import has completed

Note

- Only rules with all necessary information (name, classification, category codes, percentages) are imported. The sum of the percentages of all categories should exactly equal 100. If the condition is not met, the rule will not be imported.
- If the headers in the Excel spreadsheet match exactly with the ones provided in the tool, the columns will automatically bind. If headers do not match, you can manually bind the columns.
- Split rules with same categories and percentages but with different split rule names can be imported.

- Mandatory fields are highlighted in red when columns are not bound to fields. Mandatory field names will change from red to black when columns are bound to their respective fields.

Sample Excel template

Fig. 6.38 shows the Excel content with columns for rule name, classification, categories and percentage. The code can be imported with or without the code abbreviation – for example, HP.1.1 and 1.1 and.1.1. This also works for HP.nec, nec and .nec.

Rule name	Classification	Classification category	Percentage
FS distribution	FS	FS.3.1	50
FS distribution	FS	FS.3.2	50
HF rule	HF	2.1.1.1	50
HF rule	HF	2.1.1.2	50
Allocation keys for MoH	FS	FS.1.1	25
Allocation keys for MoH	FS	FS.1.2	25
Allocation keys for MoH	FS	FS.2	50
HF rule for governemnt	HF	.1.1.1	2.9
HF rule for governemnt	HF	.1.1.2	45.4
HF rule for governemnt	HF	.nec	51.7

Fig. 6.38. Sample Excel spreadsheet for importing a split rule

Note that:

- Rule name – The rule name should be the same for all rows included in this rule.
- Classification – should be a classification for which the split rule is created.
- Classification category – should be categories for which the split rule is created.
- Percentage –values can be entered as decimals or integers. However, please note that if a value is entered as 0.7, it will be interpreted by the tool as 0.7%, not 70%.

Warning

Import of split rules may fail due to various reasons, including:

- missing classification categories
- missing mandatory information like percentages, classification and categories
- unknown classification category
- sum of category percentages not equal to 100
- a rule of the same name is associated with different classifications
- a rule with the same name exists
- the rule already exist in HAPT

- the same rule with the same categories and shares repeats twice in the Excel file.

Status of the import of split rules is shown in the **NOTIFICATION** section. It shows the total number of split rules imported and if any split rule(s) have not imported (reason shown in red).

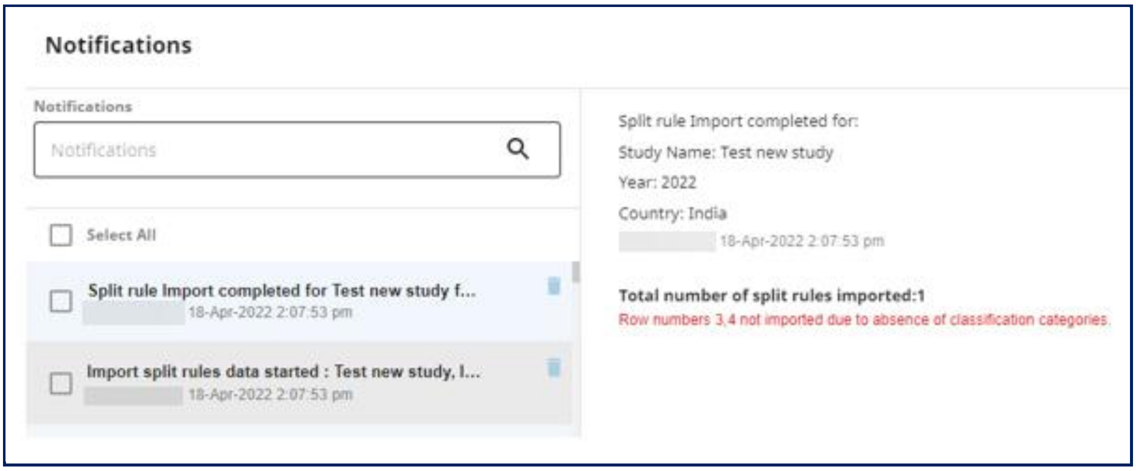


Fig. 6.39. Notification for split rule import completed

Examples of error messages shown in notifications if a split rule fails to import include the following.

- Row number 3, 4 not imported due to absence of classification categories.
- Row numbers 8 not imported due to missing mandatory information.
- Row numbers 5, 6, 7 not imported as classification category not found.
- Row numbers 15, 16 not imported due to sum of categories not equal to 100 percentages.
- Row numbers 17, 18, 19 not imported as the same rule name associated with different classifications.
- Row numbers 21 not imported as rule with the same name exists.
- Row numbers 25, 26 not imported due to existing split rule.
- Row numbers 30, 31, 32 not imported due to duplicate classification with categories and share in Excel.

6.2.4.3 Viewing split rule statistics

Statistics show how many data rows the split rule is applied to. Split rule statistics show the data source type, data source name, and data rows on which this particular split rule is applied. To view statistics, follow these steps.

1. Click the ellipsis ( ) corresponding to the split rule for which you want to view statistics.
2. Click **View Statistics**.

Fig. 6.40. Choosing the split rule to view statistics

The *View Statistics* form is displayed.

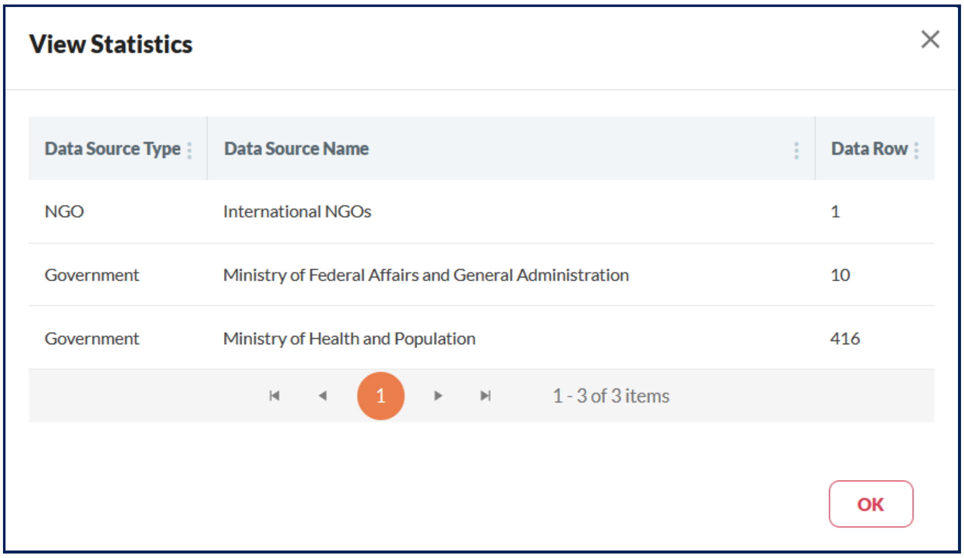


Fig. 6.41. Viewing split rule statistics

Table 6.7 shows the fields and buttons present on the *View statistics* form.

Table 6.7. Description of fields in the *View Statistics* form

Field/button name	Description
Data Source Type	Shows the data source type for which this split rule is applied.
Data Source Name	Shows the data source name for which this split rule is applied.
Data Row	Shows the number of data rows on which this split rule is applied.

3. Click **OK**.

6.2.4.4 Editing a split rule

It is possible to modify data row and sub-row split rules. To edit a split rule, follow these steps.

It is assumed that the split library is already opened.

1. Click the ellipsis ( ) corresponding to the split rule you want to edit.
2. Click **Edit**.

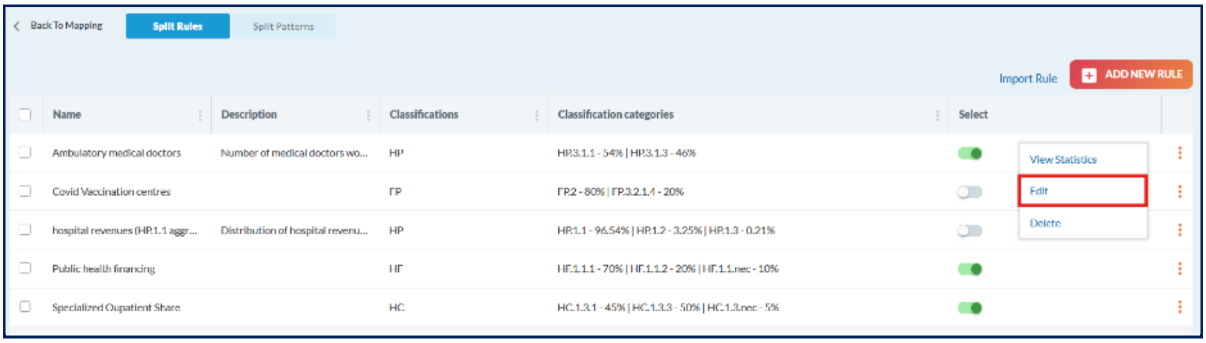


Fig. 6.42. Choosing to edit a split rule

The ***Edit Split Rule*** form is displayed.

3. Edit the split rule details, and then click **SAVE**.

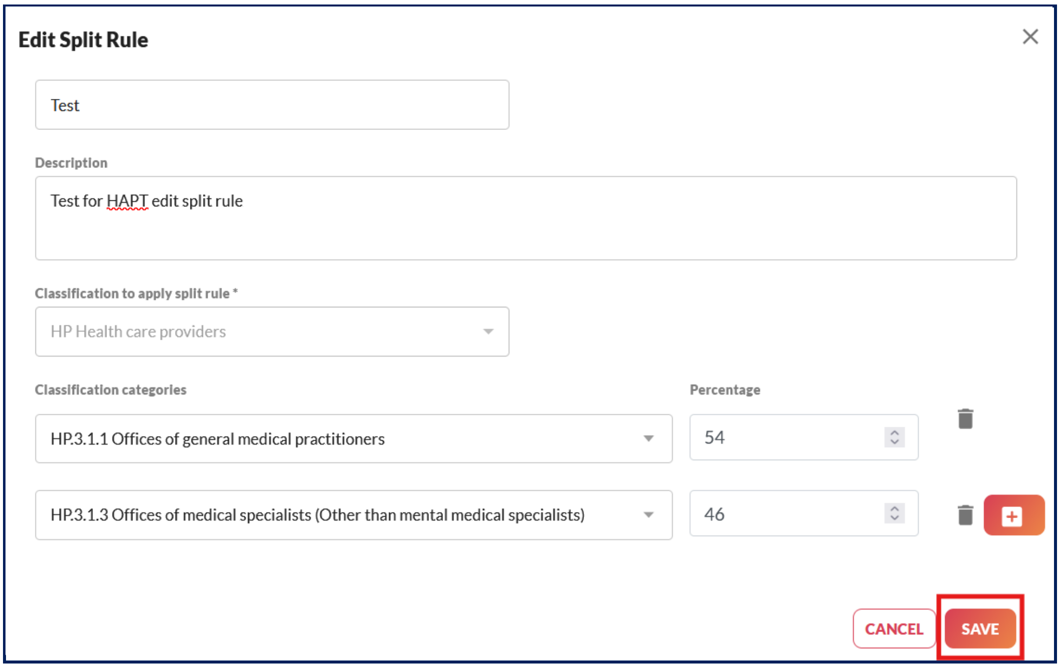


Fig. 6.43. The *Edit Split Rule* form

The split rule is edited and saved successfully.

Note

- Click the trash icon ( ) next to a category to remove it from the rule

- Click the add icon ( ) next to a category to add a new one.
- Editing a split rule changes the rule wherever applicable throughout the study.
- When editing a split rule, if it is used in the study on data rows, you will be asked for confirmation.

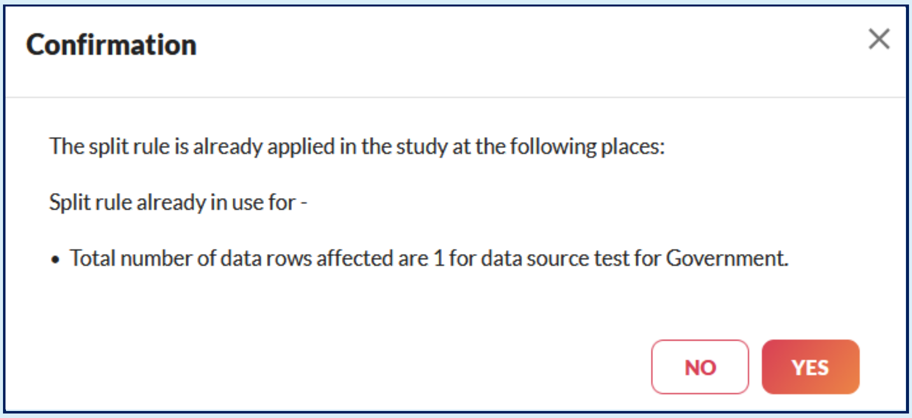


Fig. 6.44. Confirmation for edit

- If you select **YES**, the rule is updated in the split library. The rule is updated along with data rows wherever the rule was used.

6.2.4.5 Deleting a split rule

Deleting a split rule is possible if the rule is not used for any data rows. The deleted split rule will no longer be available for mapping. To delete a split rule, follow these steps.

It is assumed that you have already opened the split library.

1. Click the ellipsis ( ) corresponding to the split rule you want to delete.
2. Click **Delete**.

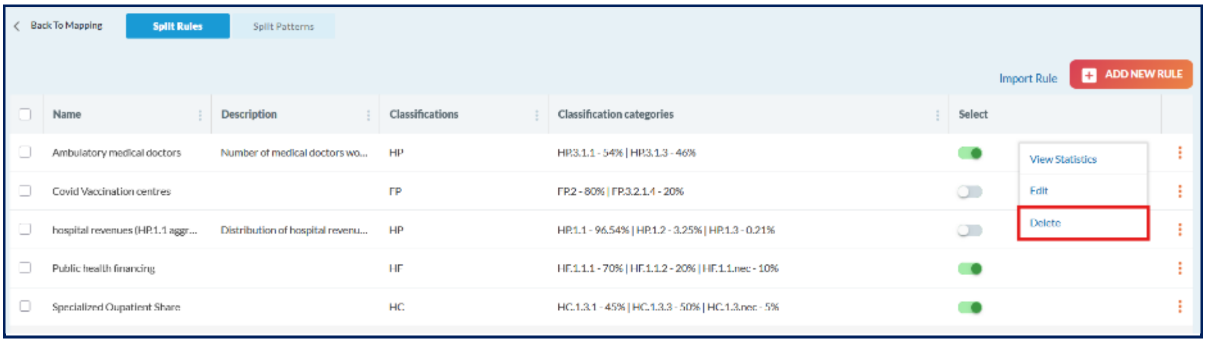


Fig. 6.45. Deleting a split rule

A message asking you to confirm your action is displayed.

3. To confirm, click **YES**.

The split rule is deleted successfully.

6.2.4.6 Apply a split rule to a data row

Split rules are used when performing mapping, to split the expenditure of a data row in a determined classification between two or more categories. To apply a split rule from the split library, follow these.

It is assumed that the split library is already opened.

1. Select the data row for which you want to apply the split rule and open the split library.
2. Click the toggle button corresponding to the split rule you want to apply.

The button turns green and a confirmation message is displayed, indicating the split rule is applied.

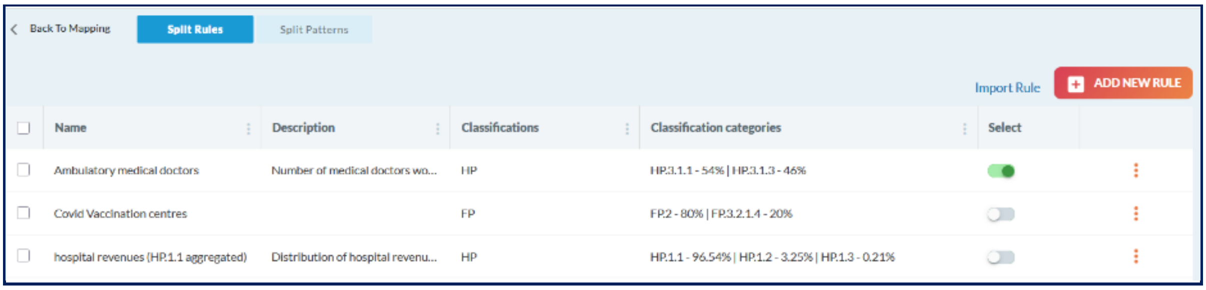


Fig. 6.46. Applying a split rule

Note

- A split rule for a determined classification cannot be applied to a data row that already has data mapped for this classification.
- A split rule can be applied to a completely unmapped data row (no classifications mapped) if the level of mapping is correct.
- If a classification is selected at the same mapping level in both the current and capital accounts, an error message will appear. To apply a split rule from the library in such cases, you must map at least one node in the data row. This allows the tool to correctly identify whether the data row belongs to the current or capital account.

If the digit levels of mapping do not match while applying a split rule, an error message is shown. For example, if the data row is mapped with HCR classification and HP under HCR is restricted to mapping only at the second-digit level, and you try to apply split rule code of more detailed HP code (like HP.3.1.1 and HP.3.1.2) then an error message is shown (Fig. 6.47).

Fig. 6.47. Error on wrongly applying a split rule

6.2.4.7 Apply a split rule to a node (sub-row)

To apply the split rule, follow these steps.

1. Select the data row to which you want to apply a split rule.
2. Select the node and click **Split Library**.
3. Click the toggle button corresponding to the split rule you want to apply.
4. Click **Back to Mapping**.

The button turns green and a confirmation message is displayed indicating the split rule is applied.

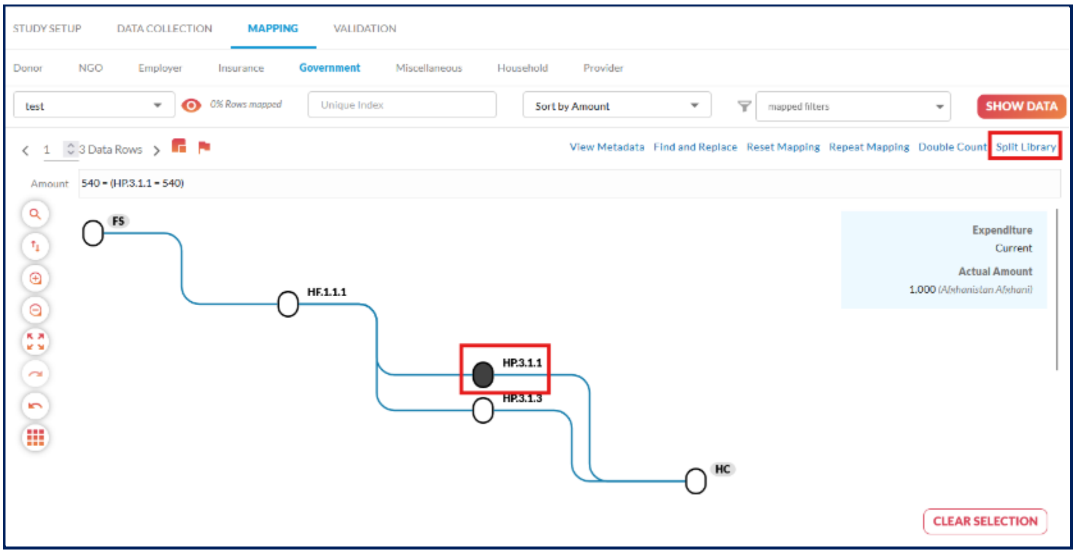


Fig. 6.48. Selecting a node and opening the split library

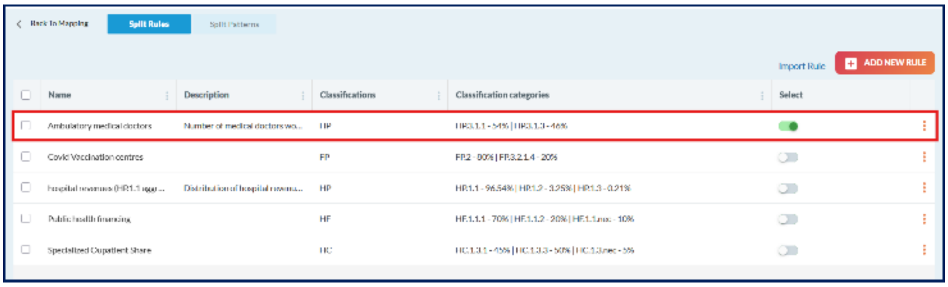


Fig. 6.49. Selecting split rule from split library

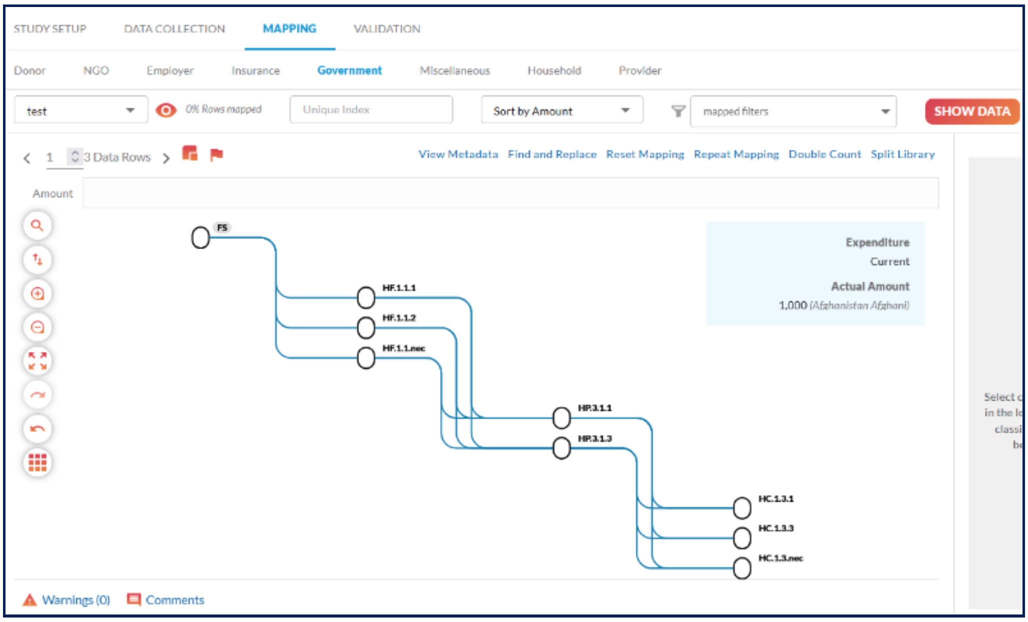


Fig. 6.50. The split rule has been applied to the selected node

Note

- You can select a mapped or non-mapped node to apply a split rule to.
- You can apply a split rule of the same classification or other classification by selecting a node.
- If you select a mapped node and apply a split rule, then the previous mapping is replaced by a split rule. For example, if you select node mapped as HF.1.1.1 and apply the split rule from the split library as HF.1.1.1 | HF.1.1.2 | HF.1.2.nec, then HF.1.1.1 code is replaced by HF.1.1.1, HF.1.12, HF.1.2.nec (Fig. 6.51).

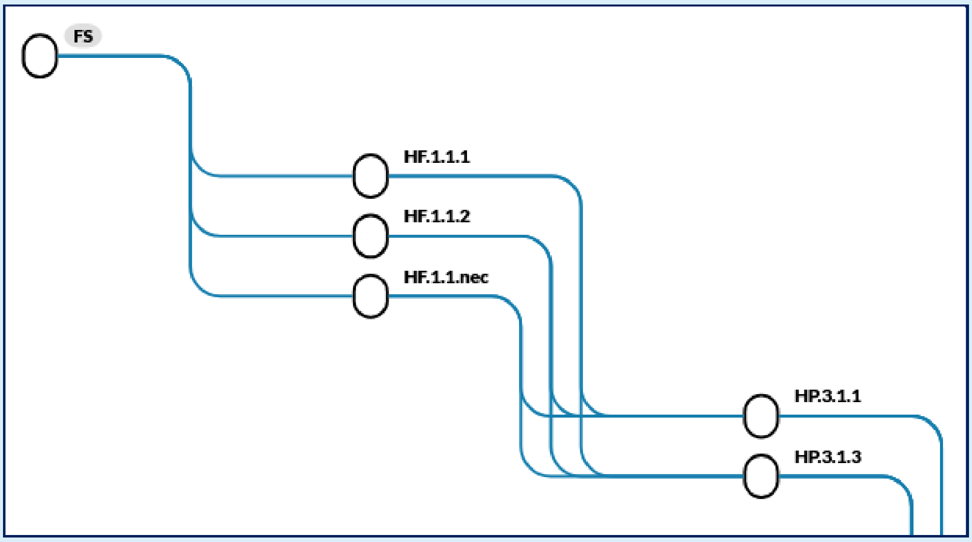


Fig. 6.51. Split rules applied

- You cannot apply a split rule if the same codes are already used for mapping. For example, if you select a node mapped as HF.1.2.1 in the mapping tree and apply a split rule HF.3.1 | HF.nec, then you will get an error message because HF.nec is already used for the same row in the mapping tree (Fig. 391).

Fig. 6.52. The error message shown if a classification is already mapped

6.2.4.8 Deselecting a split rule from the split library

A split rule can be deselected from the split library using the select/deselect toggle button (/). To deselect a split rule from the split library, follow these steps.

1. Select the data row for which you want to deselect the split rule.
2. Click **Split Library**.
3. Click the toggle button corresponding to the split rule you want to deselect. The button should currently be green.

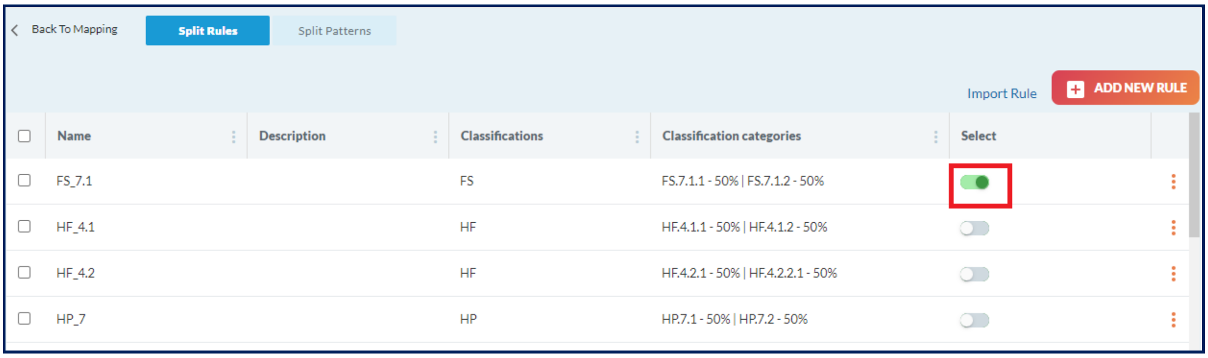


Fig. 6.53. Deselecting a split rule

4. A confirmation notification is displayed.

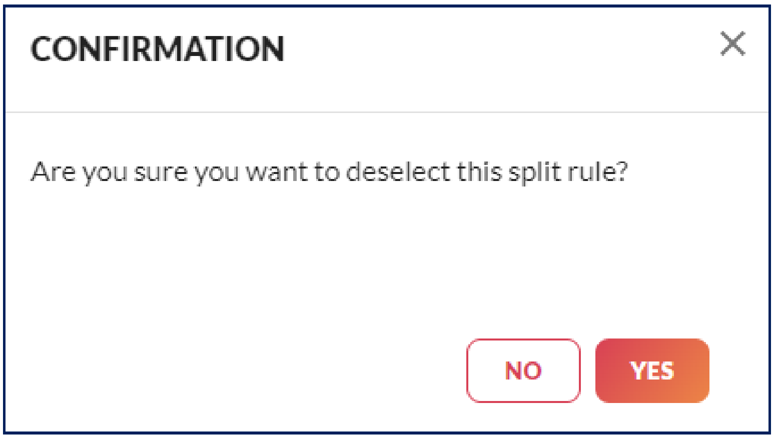


Fig. 6.54. Confirmation on deselecting a split rule

5. Click **YES**. The button turns grey and a confirmation message is displayed indicating the split rule is deselected. The split rule containing the categories for classification is unmapped for the data row.

Note:

In case of conditional mapping, the dependent category will also be unmapped. For example, if HF is split into two categories – HF.1.1.1 and HF.1.1.2 and HP is split into HP.1.1 and HP.1.2, which flows from HF.1.1.1 and HP.2.1 and HP.2.2 which flows from HF.1.1.2:

- if completed HF split rule with item HF.1.1.1 and HF.1.1.2 is unmapped, then its dependant mapping for HP will also be removed;
- if only HF.1.1.1 is unmapped, then its dependant mapping HP.1.1, HP.1.2 will also be removed; and
- if only HF.1.1.2 is unmapped, then its dependant mapping HP.2.1, HP.2.2 will also be removed.

6.2.4.9 Export split rule

Split rules can be exported as an Excel spreadsheet using the export functionality. To export a split rule, follow these steps.

It is assumed that the split library is already opened.

1. Select the split rule or rules that you want to export by clicking the check boxes beside the split rules. Select all the split rules by selecting the check box above.

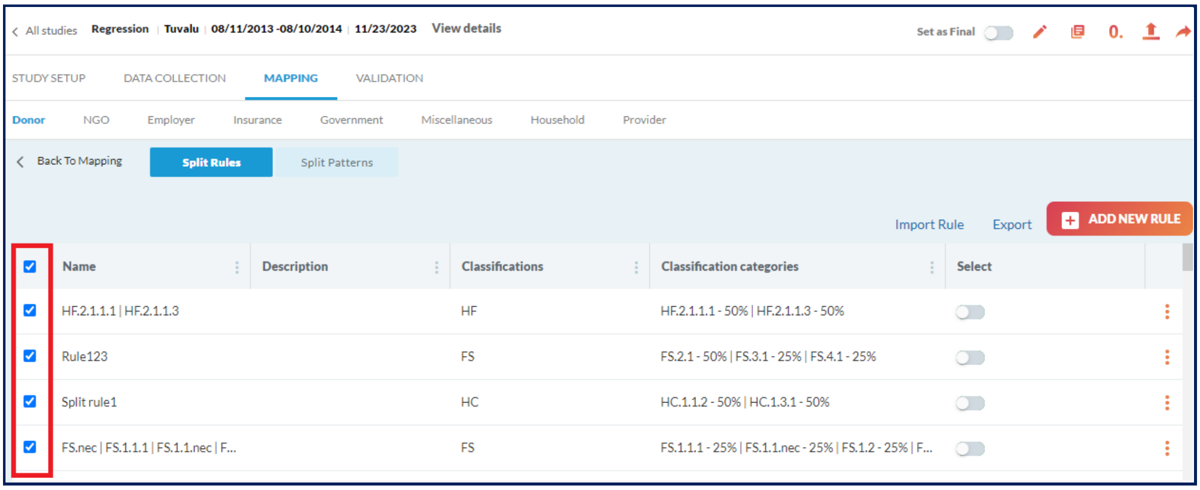


Fig. 6.55. Selecting split rules

2. The option to export will appear. Click **Export**.

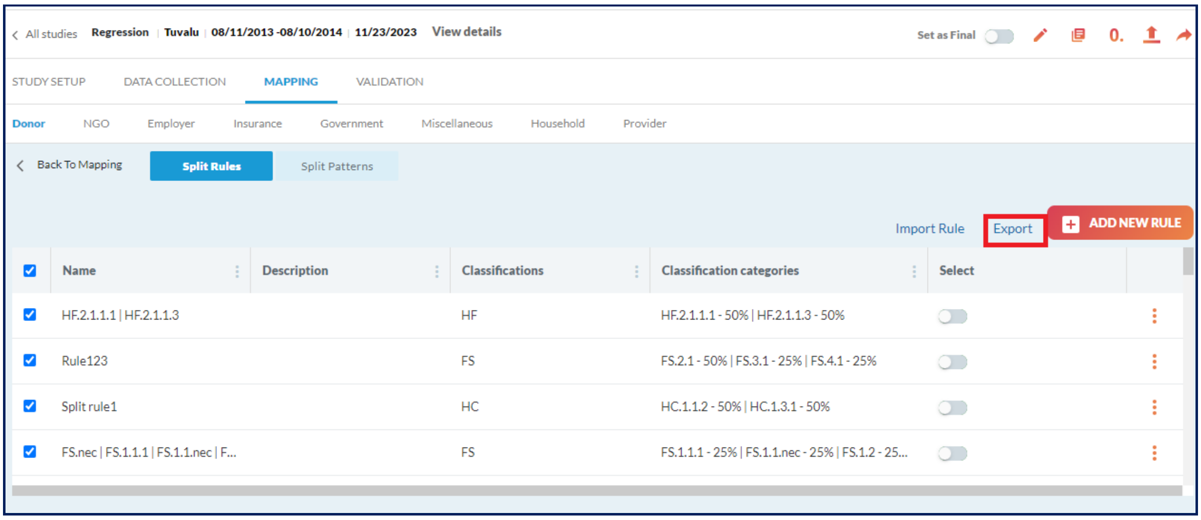


Fig. 6.56. The “Export” option

The *Export* dialog box is displayed.

3. Fill in the required details and click **EXPORT**. The Export As field gives the file name.

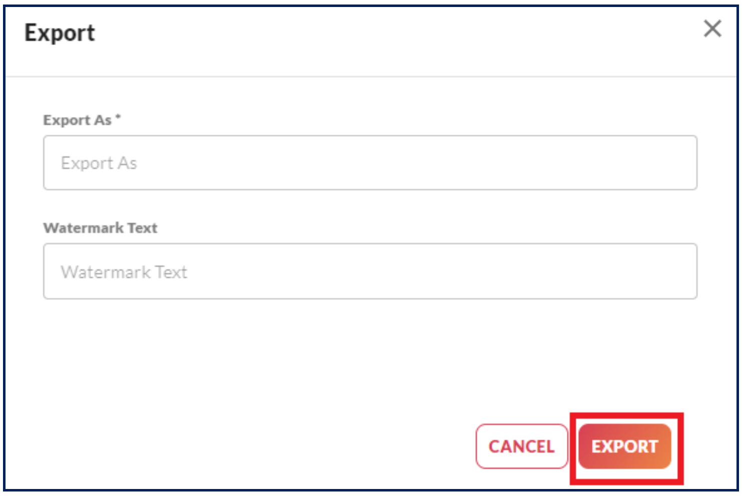


Fig. 6.57. *Export* form

4. An Excel file is downloaded to the default folder.

Note

Sample downloaded split rule file:

Rule Name	Classification	Classification	Percentage
HF.2.1.1.1 | H	HF	HF.2.1.1.1	50
HF.2.1.1.1 | H	HF	HF.2.1.1.3	50

Fig. 6.58. Sample split rule downloaded file

6.2.5 Split patterns

A split pattern is used to group and apply multiple split rules simultaneously.

6.2.5.1 Adding a split pattern

This feature is meant for adding new split patterns that are used to apply multiple split rules (for multiple classifications) to a data row at the same time. To add a new split pattern, follow these steps.

It is assumed that the split rules have already been created before being included in a split pattern. Refer to Adding a split rule.

1. On the **MAPPING** module, click **Split Library**.

The ***Split Library*** page is displayed.

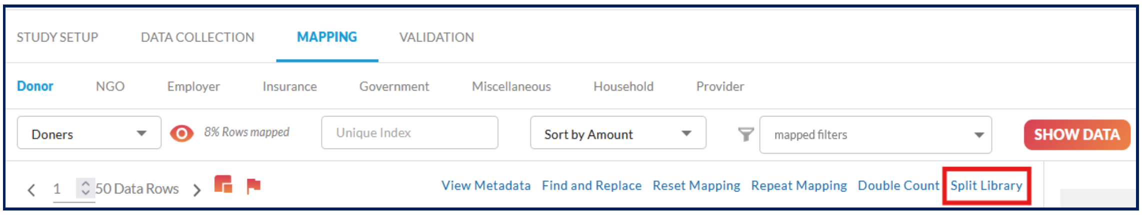


Fig. 6.59. Selecting Split Library

2. Click **Split Patterns**.

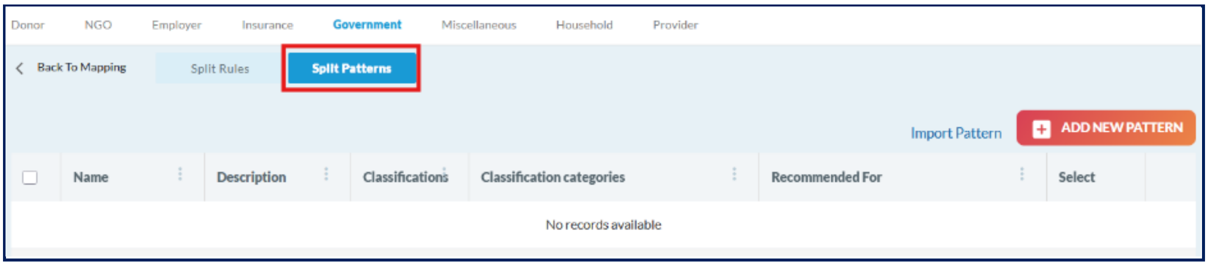


Fig. 6.60. Choosing Split Patterns

3. Click **ADD NEW PATTERN**.

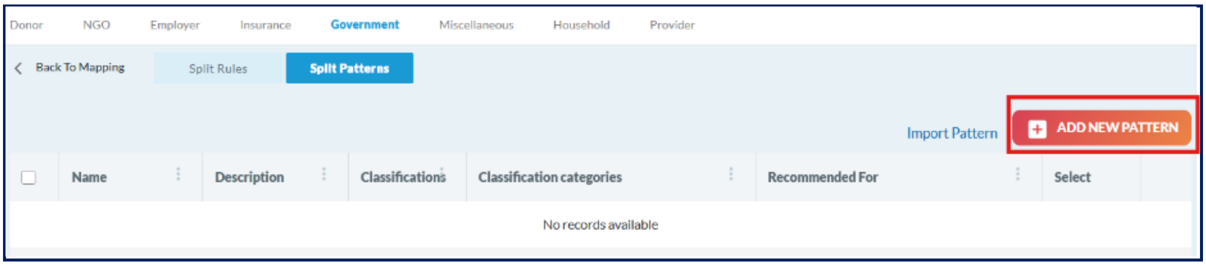


Fig. 6.61. Adding a new pattern

The ***Add New Split Pattern*** form is displayed.

Enter the split pattern details in their respective fields, and click **ADD**.

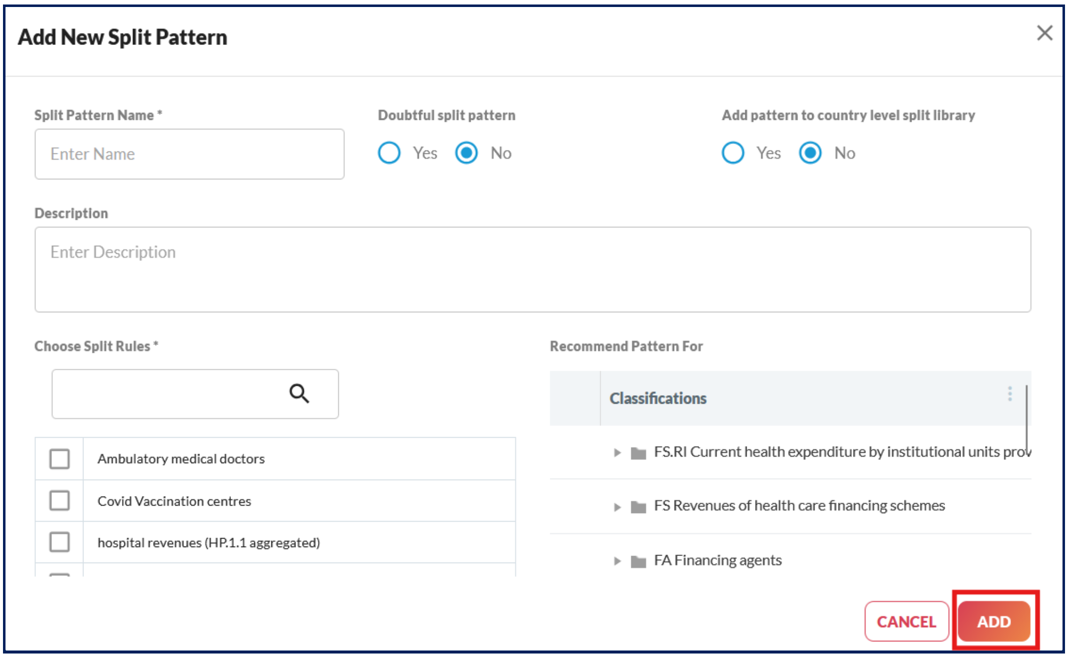


Fig. 6.62. The *Add New Split Pattern* form

A new split pattern is added successfully.

Table 6.8 shows the fields and buttons present on the ***Add New Split Pattern*** form.

Table 6.8. Description of fields in the *Add New Split Pattern* form

Field/button name	Description
Split Pattern Name	Allows entry of the name of the split pattern.
Doubtful split pattern	Creates a visual differentiation for selected split patterns for future review. By default, it is marked as "No".
Add rule to country-level split library	Adds the rule to the country-level library.
Description	Allows entry of the description of the split pattern.
Choose Split Rules	Allows selection of the split rules that are to be included in the split pattern. Split rules must have been added previously (Refer to Adding a split rule.)
Recommend Pattern For	Allows selection of the categories for which you want to recommend this pattern.

Note

- If a split pattern is marked as doubtful ("Yes"), it is displayed in blue.
- If a split pattern is marked as doubtful ("No"), it is displayed in black.
- "Recommend pattern for": While adding a split pattern, you can recommend a split pattern for a classification category.
- If you previously have recommended a split pattern for a category and select the node to map it manually, then the **USE RECOMMENDED PATTERNS** button appears on the MAPPING module screen. Using this, you get to the ***Split Pattern*** screen and see the available split patterns. For example, you may create a split pattern and add HF.1.1.1 under "Recommend Pattern For". Now you will be on the MAPPING module screen and can manually map HF with HF.1.1.1. If you select node HF.1.1.1 then the **USE RECOMMENDED PATTERNS** appears. Clicking this will redirect you to the ***Split Pattern*** screen. If required, you can select a split pattern for the data row.
- You can create only one split pattern with the same name, categories, and percentages. Also, you can create a split pattern with the same name but with different categories and percentages.

6.2.5.1.1 Recommend split pattern for

You can recommend a split pattern for one or more categories.

To recommend and use the recommended split pattern, follow these steps:

1. Follow the steps in Adding a split pattern.
2. Under "Recommend Pattern For", select the classification categories for which you want to recommend patterns.

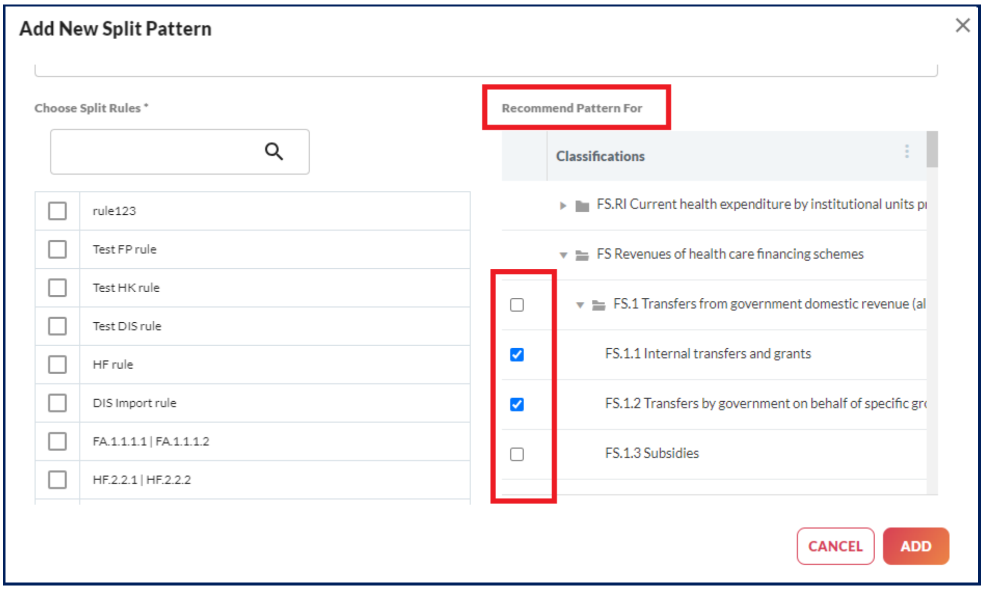


Fig. 6.63. Selecting classification categories under "Recommend Pattern For"

Click **ADD**. The split pattern is added, and recommended categorization categories are displayed for the split pattern under the column “Recommended For”.

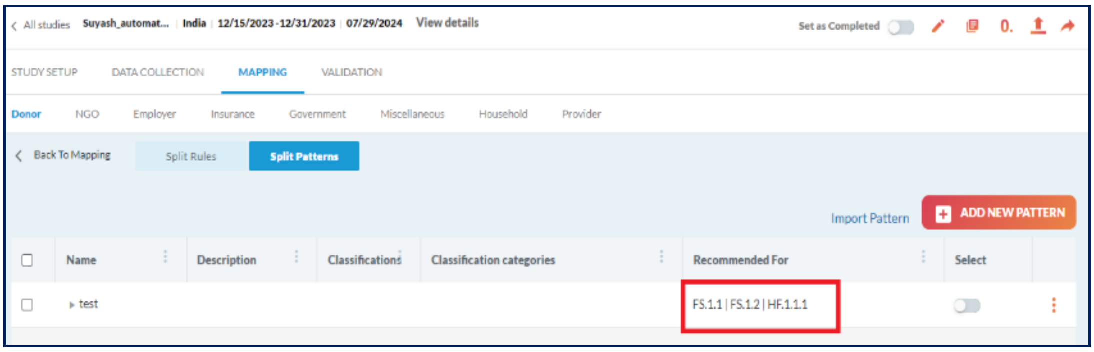


Fig. 6.64. Classification categories under “Recommend For”

3. Navigate to the **MAPPING** module screen and map a node to the recommended classification category.

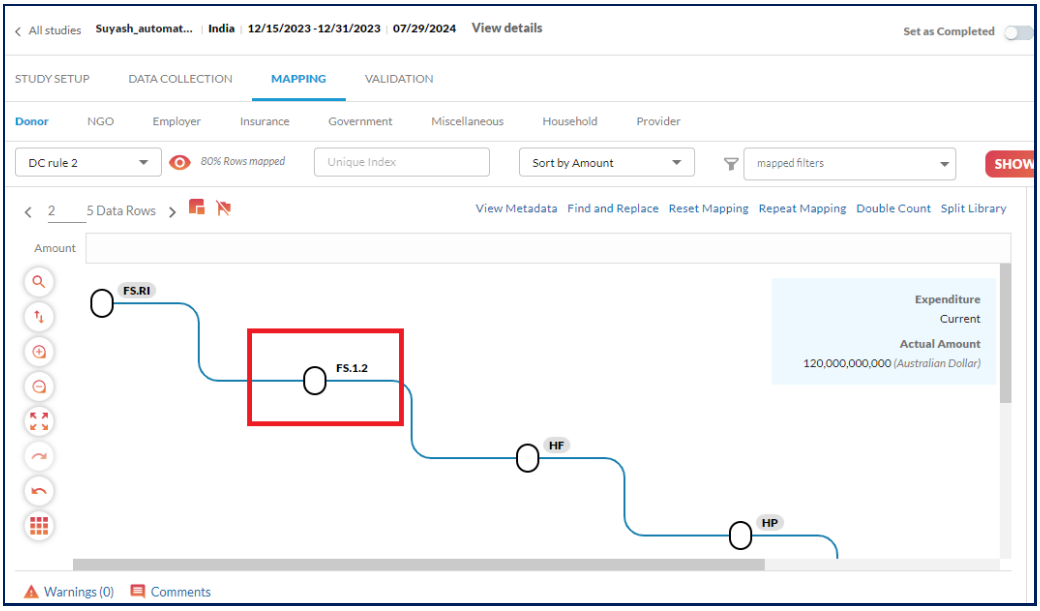


Fig. 6.65. Mapping a node with recommended classification categories

4. Select the mapped node (e.g. FS.1.2) and click **USE RECOMMENDED PATTERNS**.

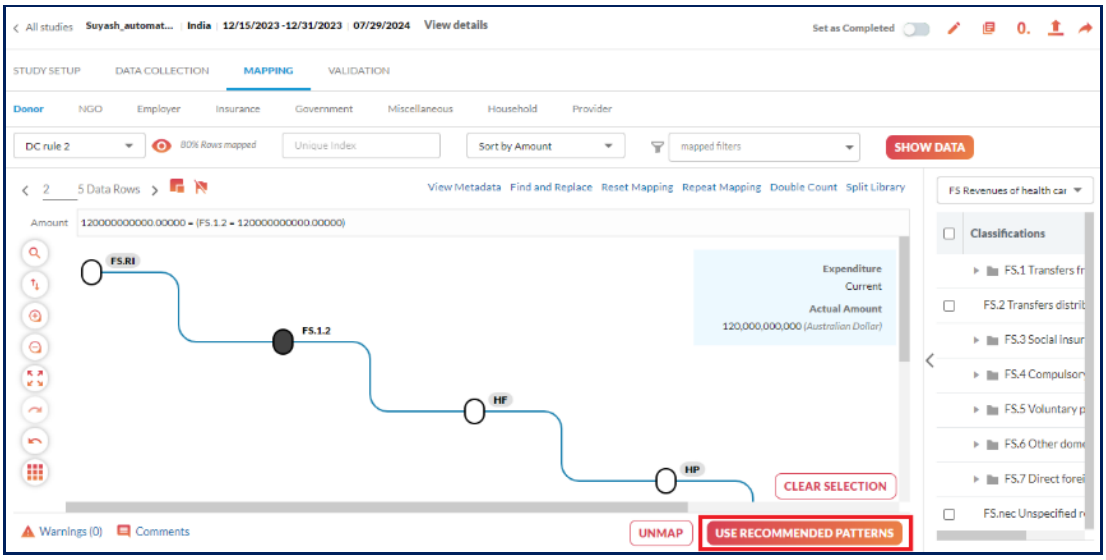


Fig. 6.66. Use recommended patterns

5. The ***Split Pattern*** screen will open. Select the desired patterns.

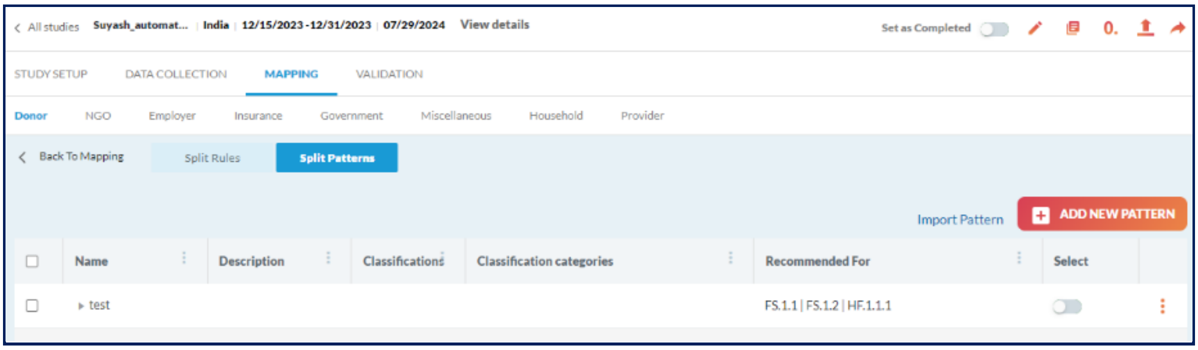


Fig. 6.67. The *Split Pattern* screen

6.2.5.2 Importing a split pattern

To import a split pattern, follow these steps.

1. Open the split library and click **Split Pattern**.

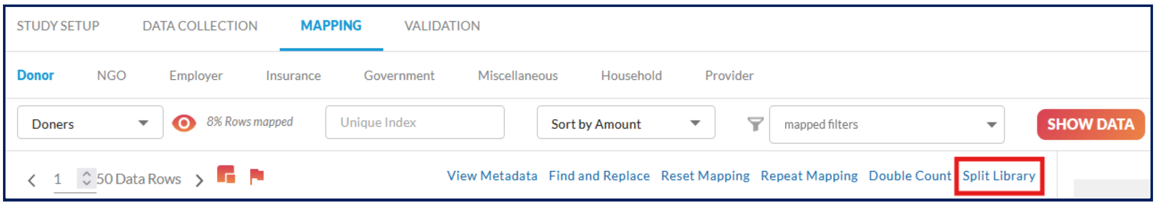


Fig. 6.68. Selecting split library

2. Click **Import Pattern**.

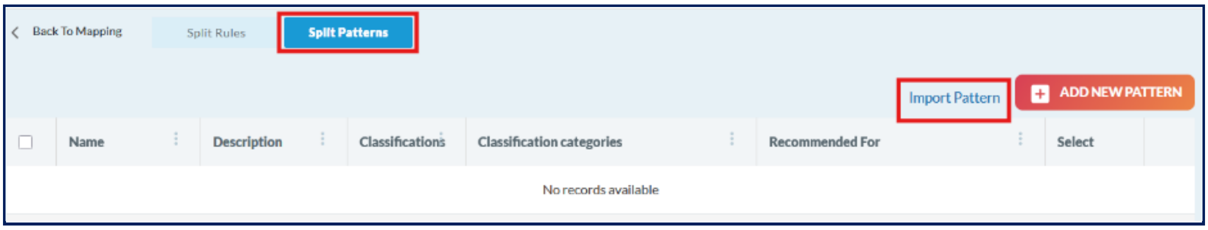


Fig. 6.69. Selecting the pattern to import

3. Click **CHOOSE FILE**. Select the file to be imported.
4. Select the Excel sheet.
5. Bind the columns with their respective fields and click **IMPORT**. After the columns are bound to their fields, a check mark appears in the right grid under the “Binding” column, and the colour of mandatory fields changes from red to black.

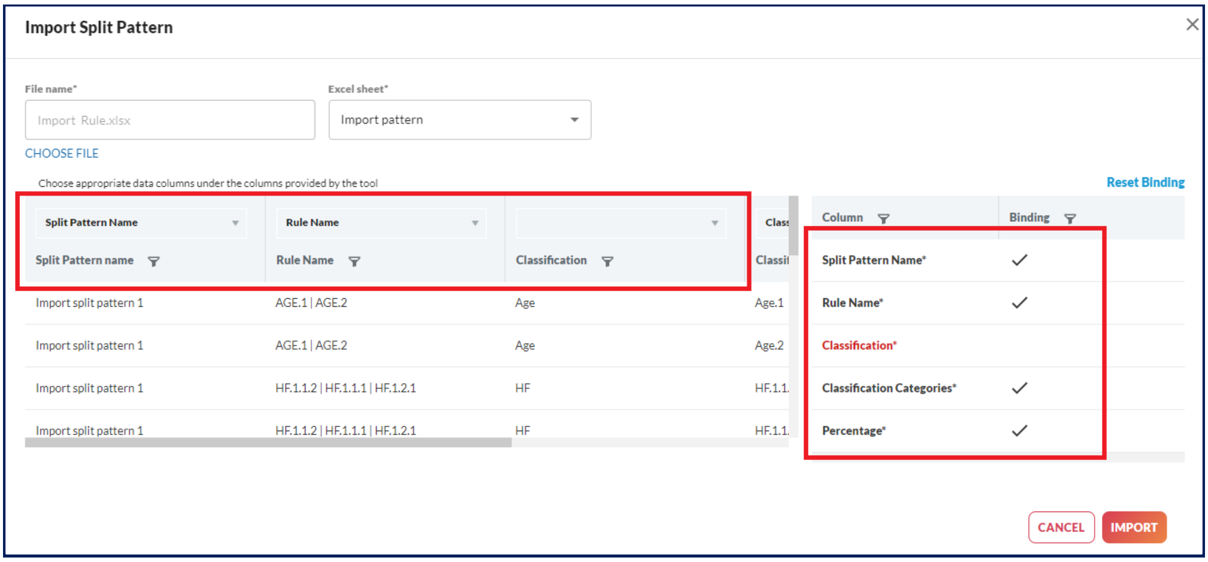


Fig. 6.70. The *Import Split Pattern* screen

Once the file is imported, a notification is shown.

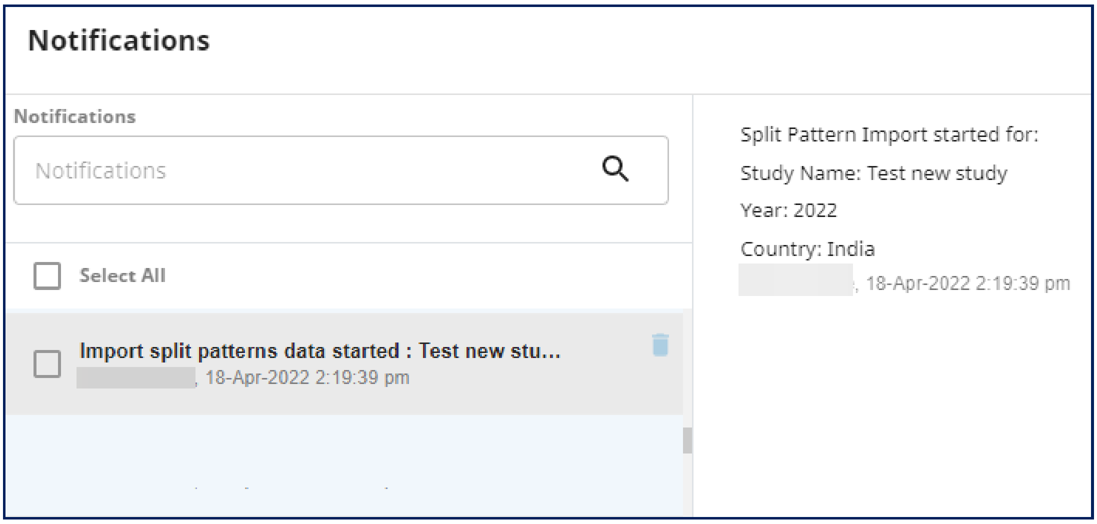


Fig. 6.71. Notification that import has started

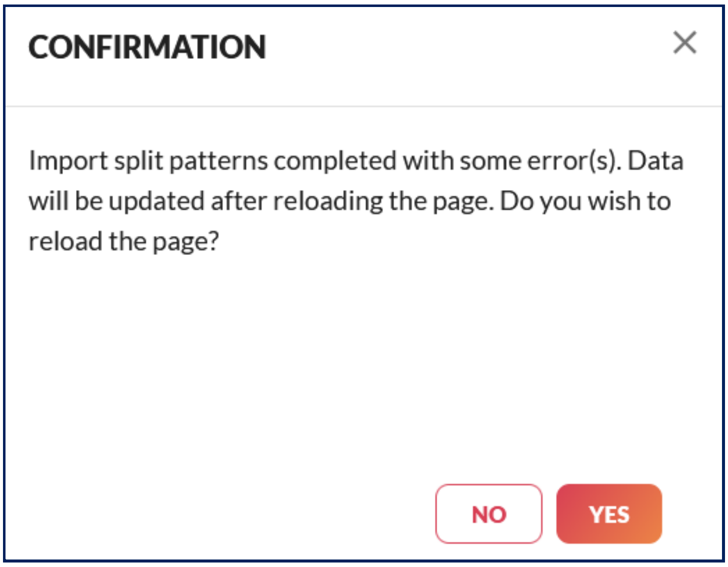


Fig. 6.72. Confirmation message

Upon clicking **YES**, the page is refreshed, and imported split patterns are displayed.

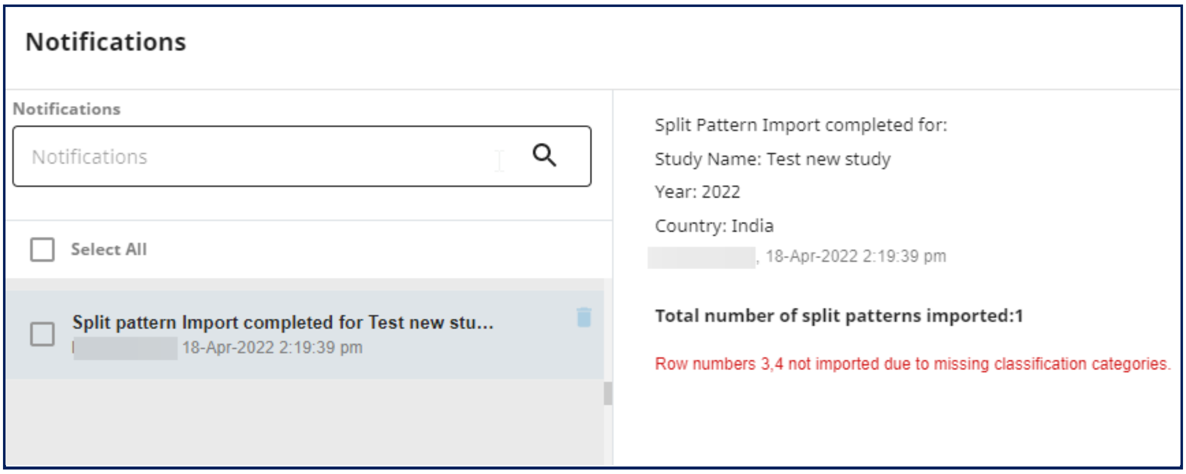


Fig. 6.73. Notification that import has completed

Notifications will be displayed all rules that fail to import. A split pattern may not import because:

- it is missing mandatory information like split pattern name, rule name, classification item, percentage;
- classifications cannot be found;
- classification categories are missing;
- sum of category percentages does not equal 100;
- the same pattern name is associated with different split rules with classifications; or
- a pattern with the same name exists.

Note:

- If the split rule does not exist in the split library (with same classification categories and percentages), then the split rule is added automatically and then split patterns are imported.
- The pattern is imported even if a rule already exists in the split rule library (same classification categories, same percentages).
- If the headers in the Excel spreadsheet match exactly with the ones provided in the tool, the columns will automatically bind. The ones whose headers do not match can be manually bound.
- Mandatory fields are highlighted in red when columns are not bound to fields. Once columns are bound to their respective fields, the mandatory field name is black.

Sample Excel template

Fig. 6.74 shows the Excel spreadsheet content with columns “Split Pattern name”, “Rule Name”, “Classification”, “Classification Categories” and “Percentage”. The format for the code of categories can include HP.1.1, 1.1 or.1.1. This also works for nec; that is HP.nec, nec and .nec.

Split Pattern name	Rule Name	Classification	Classification Categories	Percentage
Import split pattern 1	AGE.1 | AGE.2	Age	Age.1	50.0000
Import split pattern 1	AGE.1 | AGE.2	Age	Age.2	50.0000
Import split pattern 1	.1.1.2 | .1.1.1 | .1.2.1	HF	HF.1.1.2	33.3333
Import split pattern 1	.1.1.2 | .1.1.1 | .1.2.1	HF	HF.1.1.1	33.3333
Import split pattern 1	HF.1.1.2 | HF.1.1.1 | HF.1.2.1	HF	HF.1.2.1	33.3334
Import split pattern 1	3.3 | 3.nec	HC	HC.3.3	50
Import split pattern 1	3.3 | 3.nec	HC	HC.3.nec	50
Import split pattern 1	GEN.1 | GEN.nec	GEN	Gen.1	50
Import split pattern 1	GEN.1 | GEN.nec	GEN	Gen.nec	50
Import split pattern 2	.3.3 | .3.nec	HC	HC.3.3	50
Import split pattern 2	.3.3 | .3.nec	HC	HC.3.nec	50
Import split pattern 2	AGE.1 | AGE.2	Age	Age.1	50.0000
Import split pattern 2	AGE.1 | AGE.2	Age	Age.2	50.0000
Import split pattern 2	GEN.1 | GEN.2	GEN	Gen.1	65
Import split pattern 2	GEN.1 | GEN.2	GEN	Gen.2	35
Import split pattern 3	HK.2.1 | HK.2.2	HK	HK.2.1	55
Import split pattern 3	HK.2.1 | HK.2.3	HK	HK.2.2	44
Import split pattern 3	HP rule	HP	HP.3.2	63
Import split pattern 3	HP rule	HP	HP.3.3	37
Import split pattern 3	NW rule	NW	NW.1.1.1	60
Import split pattern 3	NW rule	NW	NW.1.1.nec	40

Fig. 6.74. Sample of an Excel sheet to use to import split patterns

Note several key requirements.

- Split pattern name – the split pattern name should be the same for all rows included in this pattern.
- Rule name – the rule name should be the same for all rows included in this rule.
- Classification – should be a classification for which a split rule is created.
- Classification categories – should be categories for which split rule is created.
- Percentage – values can be entered as decimals or integers. However, please note that if a value is entered as 0.7, it will be interpreted by the tool as 0.7%, not 70%.

The **NOTIFICATION** section shows the status of the importing of split patterns. It shows the total number of split patterns imported, and if any split pattern(s) did not import, it shows reasons in red.

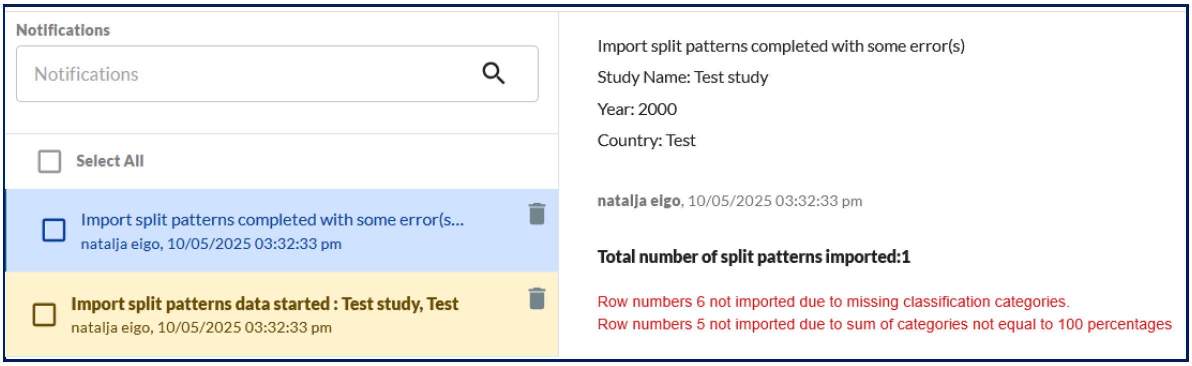


Fig. 6.75. After importing a split pattern

Below are examples of error messages shown in notifications if a split pattern fails to import.

- Row numbers 1, 2 not imported due to missing mandatory information.
- Row numbers 1, 2 not imported due to not found classifications.
- Row numbers 1, 2 not imported due to missing classification categories.
- Row numbers 1, 2 not imported due to sum of categories not equal to 100 percentages.
- Row numbers 1, 2 not imported due to the same pattern name associated with different split rules with classifications.
- Row numbers 1, 2 not imported as pattern with the same name exists.

6.2.5.3 Viewing split pattern statistics

The statistics show data source type, data source name and the number of data rows to which this pattern is applied.

To view statistics, follow these steps.

1. Click the ellipsis (⋮) corresponding to the split pattern for which you want to view statistics.
2. Click **View Statistics**.

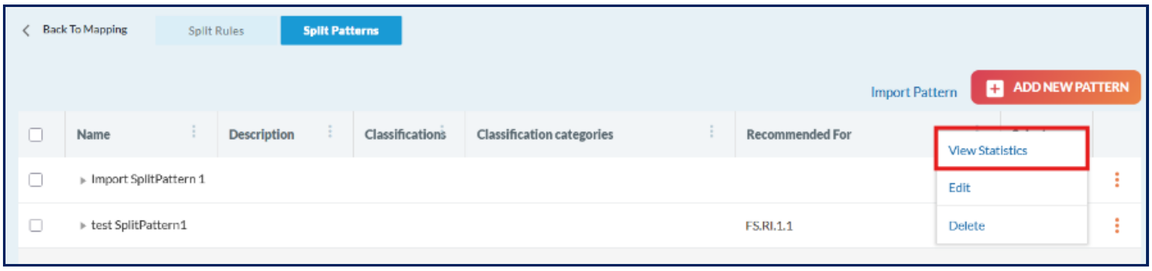


Fig. 6.76. Choosing a split pattern

The ***View Statistics*** form is displayed.

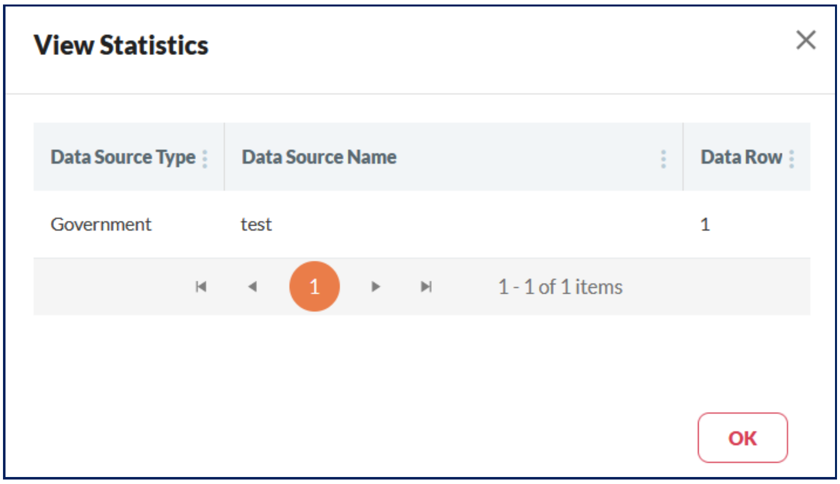


Fig. 6.77. Viewing split pattern statistics

3. Click **OK**.

6.2.5.4 Editing a split pattern

It is possible to modify a split pattern. The modified split pattern is applied to the data rows. Any changes made to the split pattern are reflected on the data rows to which the split pattern is applied.

To edit a split pattern, follow these steps.

1. Click the ellipsis ( ) corresponding to the split pattern you want to edit.
2. Click **Edit**.

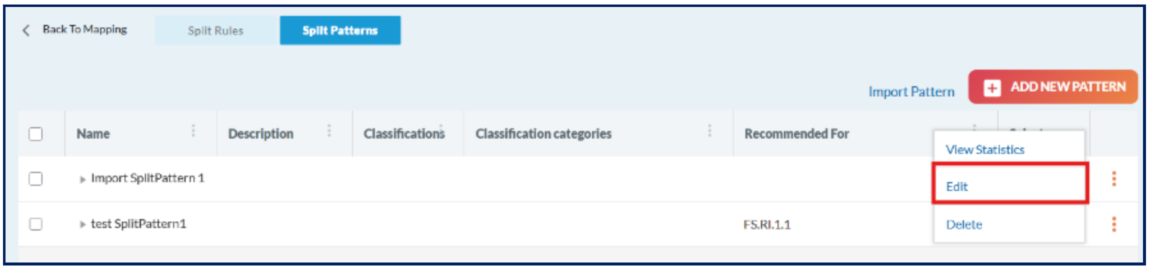


Fig. 6.78. Editing a split pattern

The ***Edit Split Pattern*** form is displayed.

3. Edit the split pattern details, and then click **SAVE**.

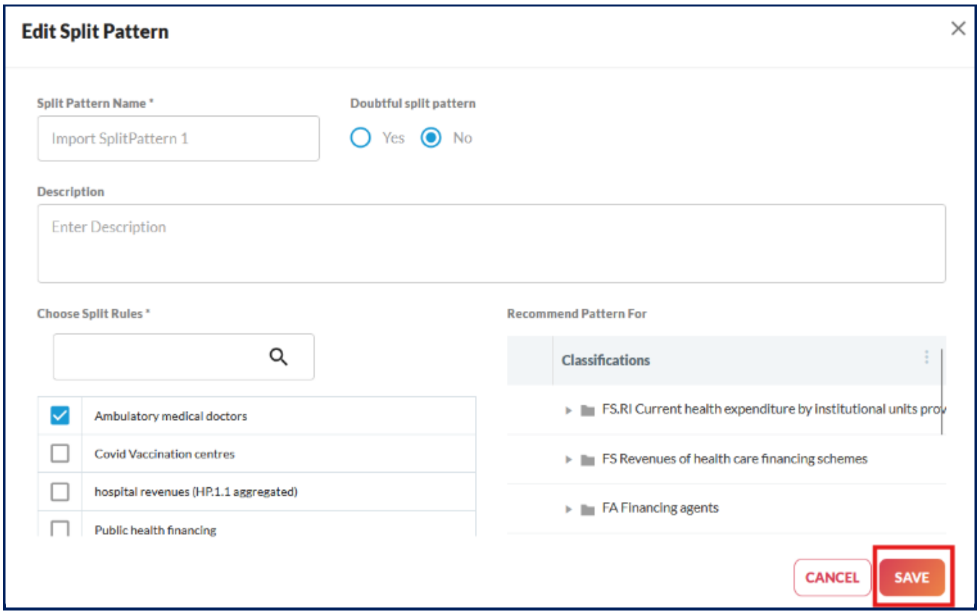


Fig. 6.79. The *Edit Split Pattern* form

The split pattern is edited successfully.

Note: The name of the split pattern is not editable.

6.2.5.5 Deleting a split pattern

Deleting a split pattern removes the unwanted split pattern from the split library.

Note: It is not possible to delete a split pattern if it is in use in data mapping.

To delete a split pattern, follow these steps.

1. Click the ellipsis (⋮) corresponding to the split pattern you want to delete.
2. Click **Delete**.

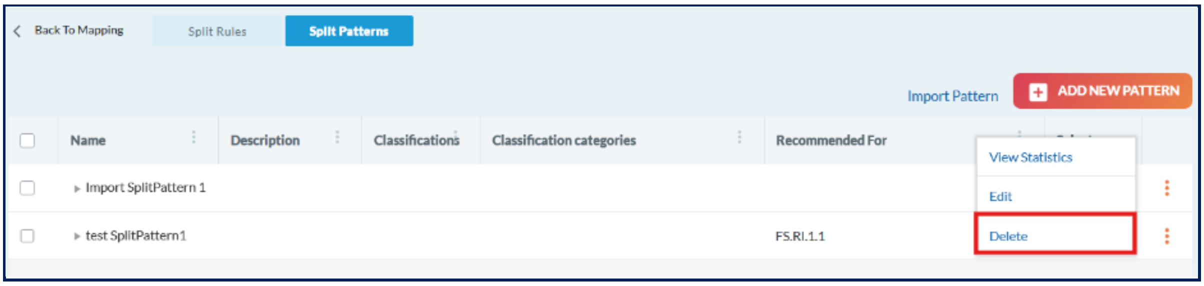


Fig. 6.80. Deleting a split pattern

A message asking you to confirm your action is displayed.

3. To confirm, click **YES**.

The split pattern is deleted successfully.

6.2.5.6 Applying a split pattern

Split patterns are applied while performing mapping. All the split rules that are added in the split pattern are applied to a data row at once. To apply the split pattern, follow these steps.

1. In the “Data rows” menu (top-left of the **MAPPING** module screen) use the up and down arrows to select a data row to which you want to apply the split rule, then open the split library.
2. Click the toggle button corresponding to the split pattern you want to apply.

The button turns green, and a confirmation message is displayed, indicating the split pattern is applied.

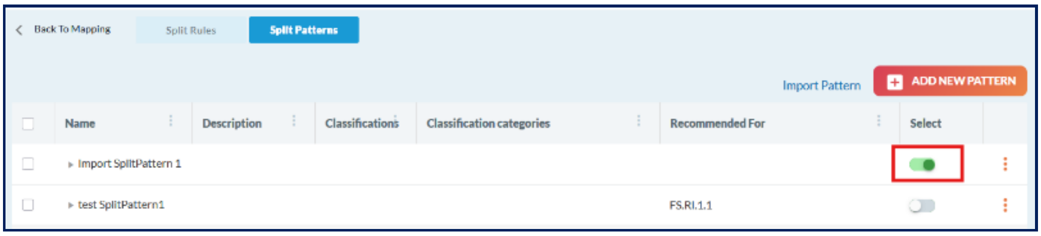


Fig. 6.81. Applying a split pattern

3. Click **Back to Mapping** to see the effect of the split rule.

Note:

- A split pattern including a split rule for a determined classification cannot be applied to a data row that already has data mapped for this classification.
- Two or more split patterns can be applied to the same data row as long as these patterns do not include the same classifications.

6.2.5.7 Deselecting a split pattern from the split library

A split pattern can be deselected from the split library using select/deselect toggle button. To deselect a split pattern from the split library, follow these steps.

1. Select the data row on which the split pattern applies.
2. Click **Split Library**.
3. Click the toggle button corresponding to the split pattern you want to deselect. It will initially be green.

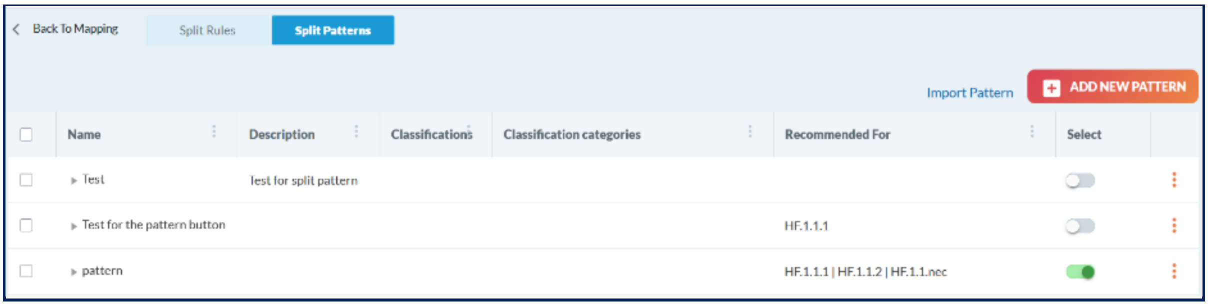


Fig. 6.82. Deselecting a split pattern

4. *Confirmation* notification is displayed.

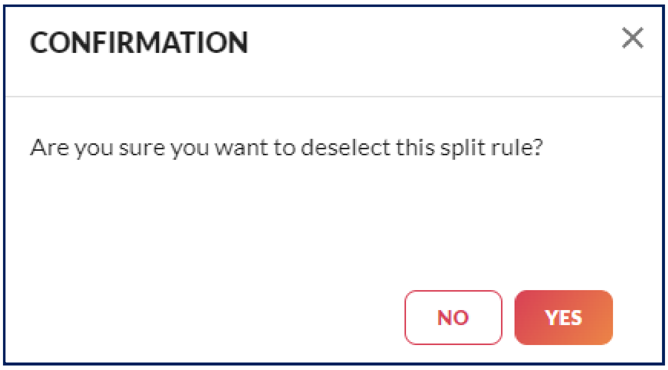


Fig. 6.83. Confirmation on deselecting a split pattern

5. Click **YES**. The button turns grey and a confirmation message is displayed indicating the split pattern is deselected. Classifications contained in the split pattern should be unmapped for the data row.

6.2.5.8 Export a split pattern

A split pattern can be exported as an Excel spreadsheet using the export functionality. To export a split pattern, follow these steps.

It is assumed that the split library is already opened.

1. Select the split pattern or patterns that you want to export by clicking the check box beside the split patterns. Select all the split patterns by selecting the check box above.

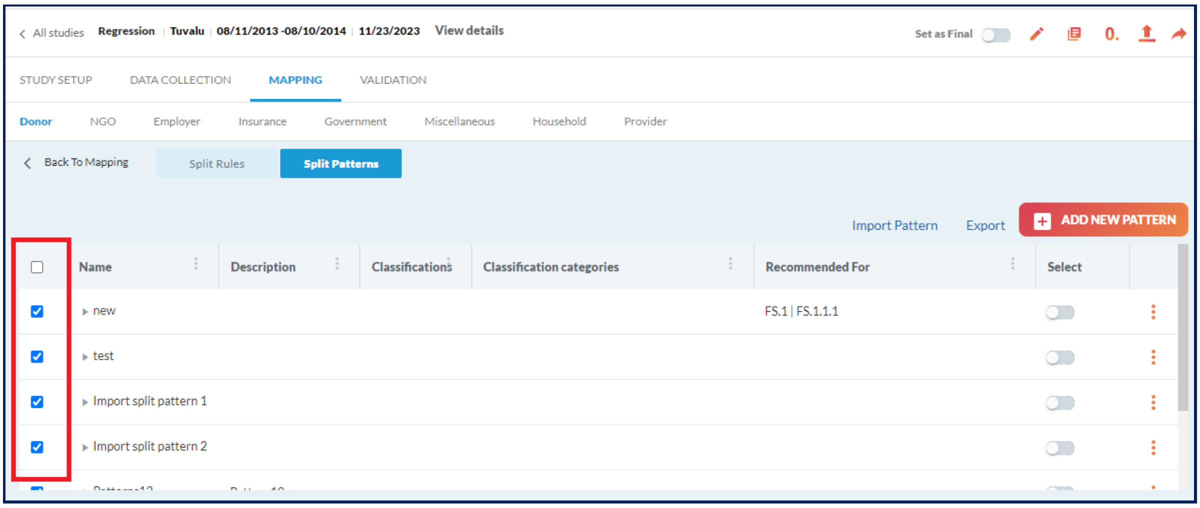


Fig. 6.84. Selecting split patterns

2. The “Export” option will appear. Click **EXPORT**

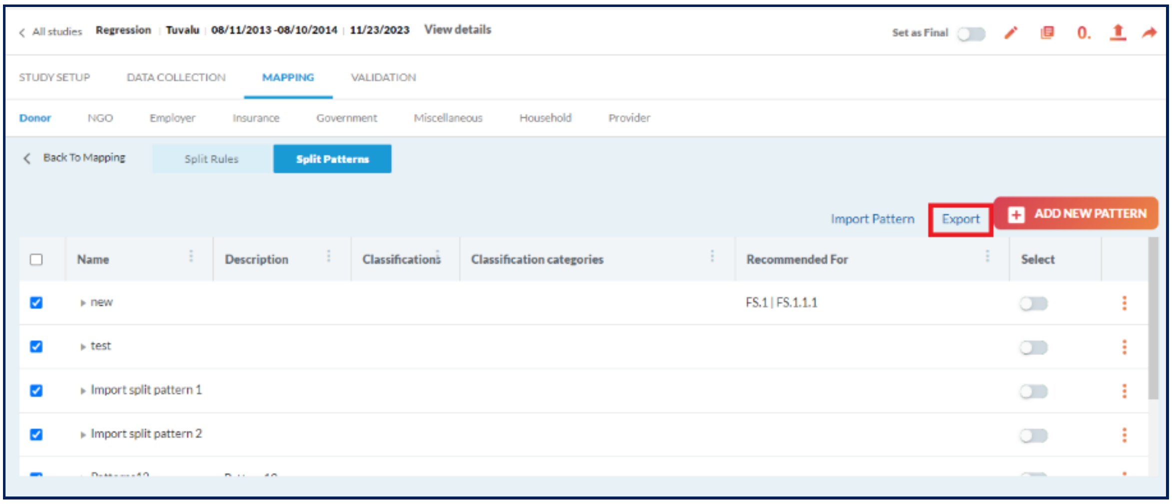


Fig. 6.85. The “Export” option

The ***Export*** dialog box is displayed.

3. Fill in required details and click **EXPORT**. The Export As field names the exported file.

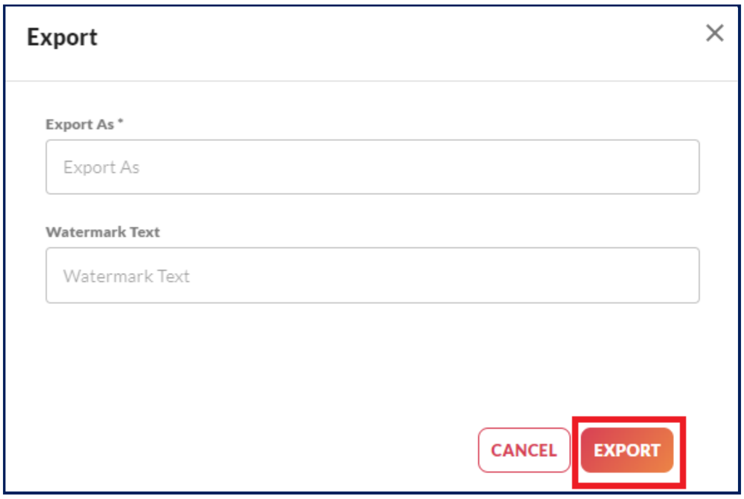


Fig. 6.86. *Export* form

4. The Excel file is downloaded to the default folder.

Note

Sample downloaded split pattern file:

Split Patte	Rule Nam	Classificat	Classificat	Percentage
new	HF.2.1.1.1	HF	HF.2.1.1.1	50
new	HF.2.1.1.1	HF	HF.2.1.1.3	50
new	Rule123	FS	FS.2.1	50
new	Rule123	FS	FS.3.1	25
new	Rule123	FS	FS.4.1	25
test	BEN rule	BEN	BEN.1	7.1429
test	BEN rule	BEN	BEN.2	7.1429
test	BEN rule	BEN	BEN.3	7.1429
test	BEN rule	BEN	BEN.4	7.1429
test	BEN rule	BEN	BEN.5	7.1429
test	BEN rule	BEN	BEN.6	7.1429
test	BEN rule	BEN	BEN.7	7.1429
test	BEN rule	BEN	BEN.8	7.1429
test	BEN rule	BEN	BEN.9	7.1429
test	BEN rule	BEN	BEN.10	7.1429
test	BEN rule	BEN	BEN.11	7.1429
test	BEN rule	BEN	BEN.12	7.1429
test	BEN rule	BEN	BEN.13	7.1423
test	BEN rule	BEN	BEN.nec	7.1429
test	FS.3.1 | FS	FS	FS.3.1	50
test	FS.3.1 | FS	FS	FS.3.3	50

Fig. 6.87. A sample split pattern downloaded file

6.2.6 Excluding a data row from mapping

This function excludes a data row from the calculation of expenditure during mapping. All its sub-rows are also excluded. A data row can be included or excluded at any point of the study production. To exclude a data row from the calculation, follow these steps.

1. Open the data row you want to exclude from the calculation in ***Mapping*** pane.
2. Click the toggle icon ( ) in the MAPPING pane.
3. The button now has a line through it (Fig. 6.88), which means the data row is excluded.

A message confirming the exclusion of the data row is displayed.

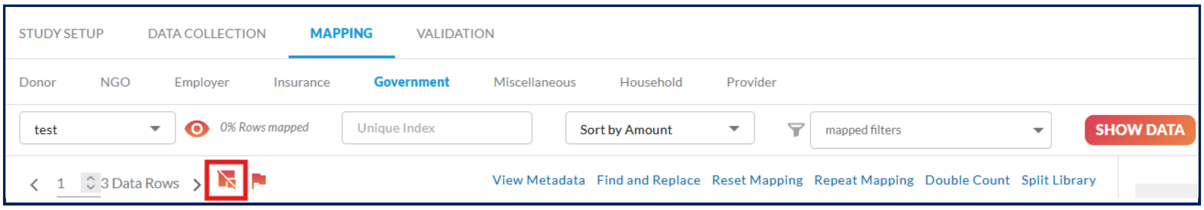


Fig. 6.88. Excluding a data row

The excluded row is shown as a grey dotted line. This makes it easy to see that the row is excluded.

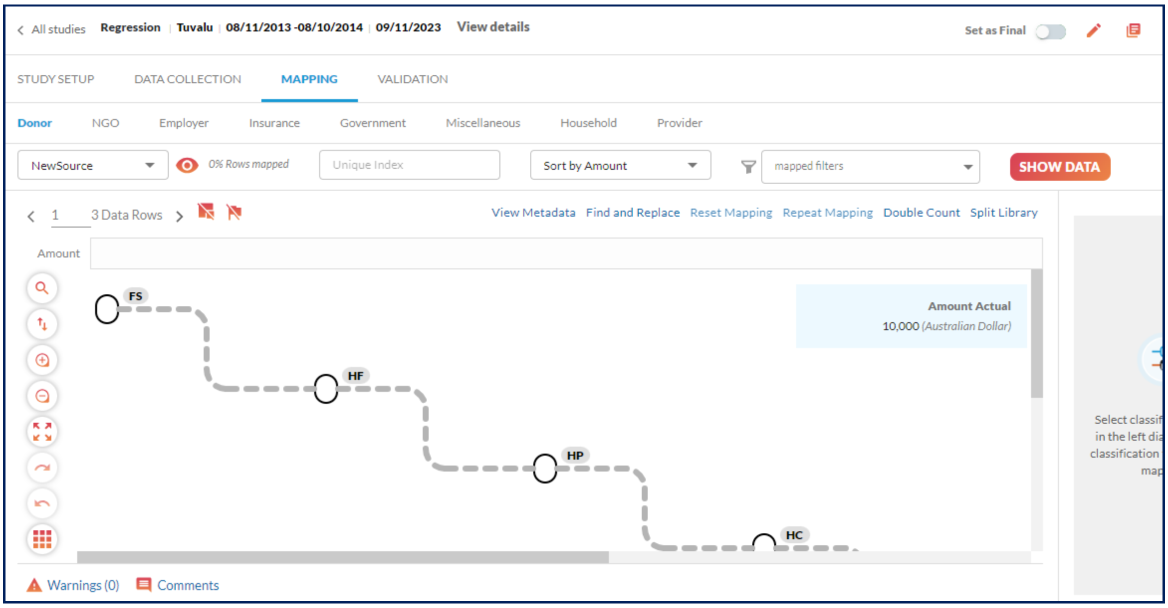


Fig. 6.89. An excluded data row

Note

- The toggle button icon ( ) can be used to include a previously excluded data row. That is, pressing it again "unexcludes" the row.
- To view the data rows that are excluded, select the "Excluded" option in the **Select filter** field.

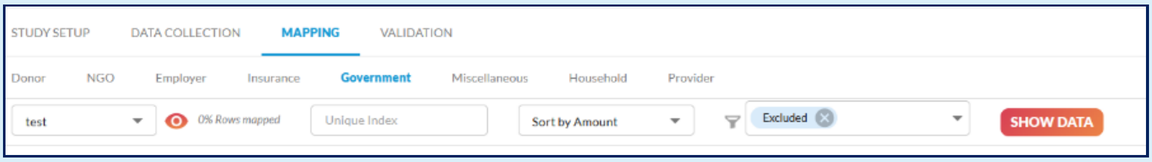


Fig. 6.90. Viewing excluded rows

- Use this filter to view the data rows that are excluded while performing double counting.

6.2.7 Flagging a data row

This feature flags a data row for reviewing during mapping so that the doubtful data can be revisited and mapped or remapped later. This flagged data row can be viewed later. You can select more than one data row for flagging, and can also unflag a data row.

1. Open the data row you want to flag for review during mapping in the MAPPING pane.
2. Click the flag toggle icon ( ) in the MAPPING pane.
3. The strike-through is removed from the button ( ), which means the data row is marked with a flag.

A message confirming the action is displayed.

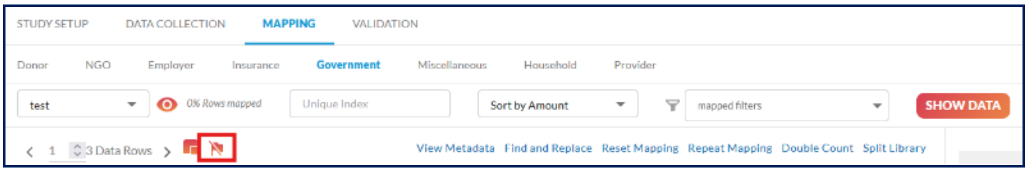


Fig. 6.91. Flagging a data row

Note

- The flag toggle button ( ) can be used to unflag a flagged row – this marks the data row as having been reviewed.
- To view the data rows that are flagged, select the "Flagged" option in the **Select filter** field.

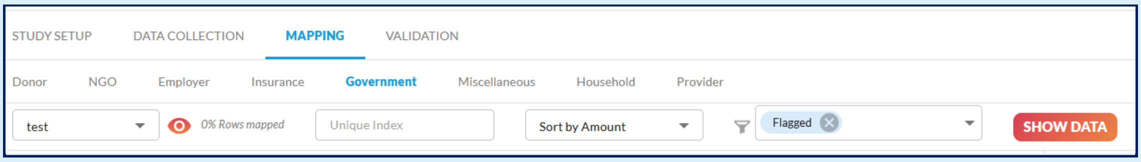


Fig. 6.92. Selecting flagged rows for viewing

6.2.8 Repeating a mapping

Repeat mapping allows you to apply classification codes of a mapped data row to multiple expenditure rows with the same characteristics, saving time and effort. Mapping can be repeated for expenditures of the same data source, same data source type or for all data sources of all data source types.

Note

Classifications for which you want to repeat a mapping should be mapped to use this function. To map the data row, refer to Performing mapping.

To repeat a mapping, follow these steps.

It is assumed that you have already selected the data source for which you want to perform repeat mapping.

1. In the MAPPING module, select the mapped data row whose mapping you want to repeat and click **Repeat Mapping**. Classifications for which you want to repeat mapping should be mapped in order to use this function.

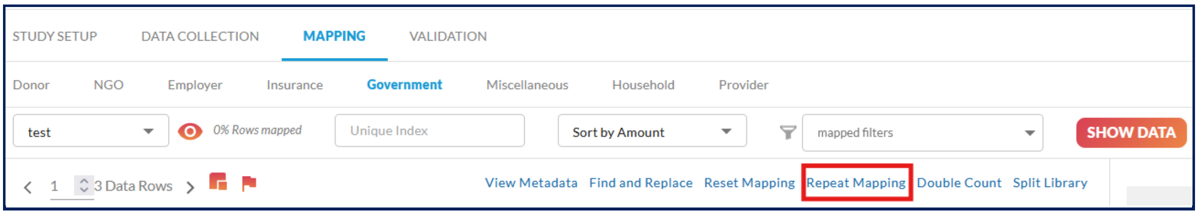


Fig. 6.93. Selecting the "Repeat Mapping" option

The ***Repeat Mapping*** screen is displayed.

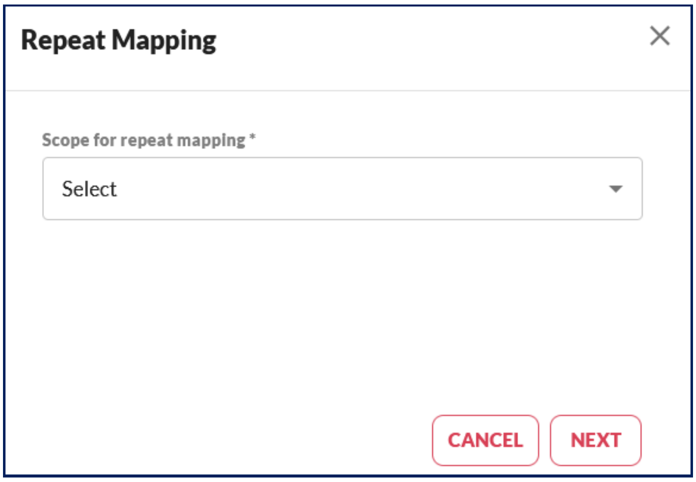


Fig. 6.94. The *Repeat Mapping* screen

2. Select the scope for the repeat mapping from the drop-down list.

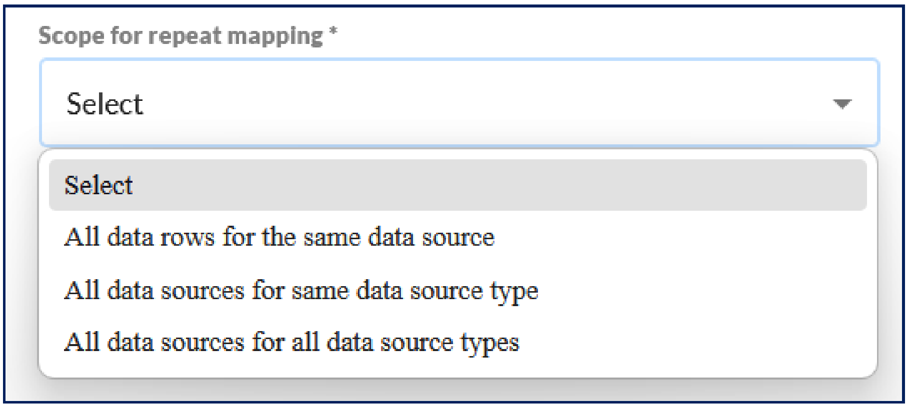


Fig. 6.95. Selecting the scope for the repeat mapping

The scope criteria are used to specify the data sources selected for repeat mapping. Table 44 shows different options in the ***Scope for repeat mapping*** drop-down

Table 6.9. Description of different options in the *Scope for repeat mapping* drop-down

Field name	Description
All data rows for the same data source	Repeat mapping will be applied to all data rows of the same data source within the opened study.
All data sources for the same data source type	Repeat mapping will be applied to data rows of all data sources from the same data source type (donor, NGO, employer, insurance, government, miscellaneous, household, and provider) within the opened study.
All data sources for all data source types	Repeat mapping will be applied to the whole opened study (data rows of all data sources from all data source types).

The ***Repeat Criteria*** section is displayed.

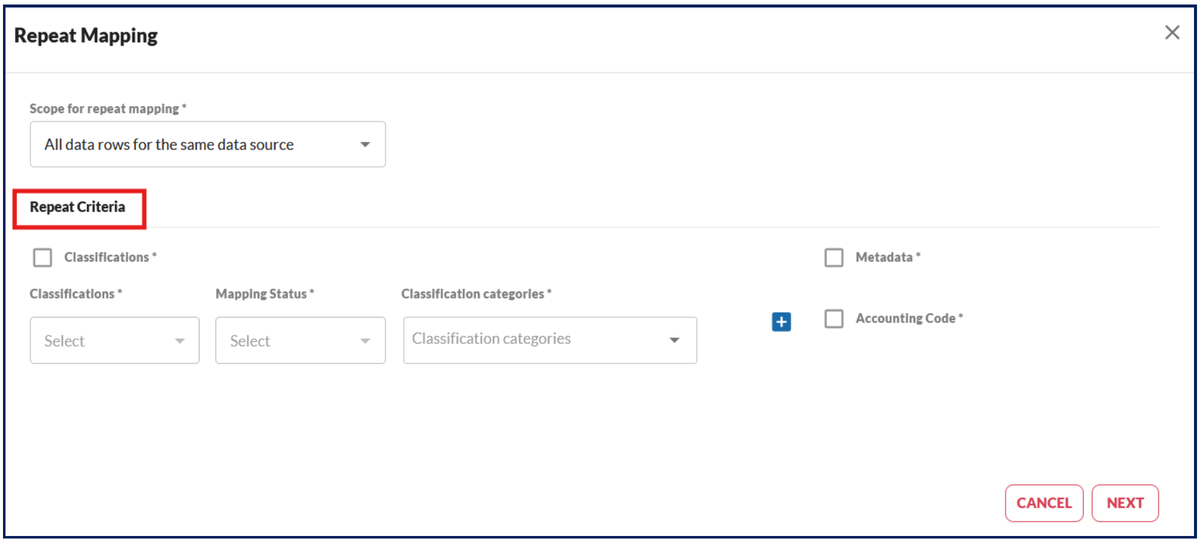


Fig. 6.96. Selecting repeat mapping criteria

Table 6.10 shows the fields on the ***Repeat Mapping*** page, and the available repeat criteria.

Table 6.10. Description of fields on *Repeat Mapping* page and Repeat Criteria section

Field name		Description
Scope for repeat mapping		Allows setting the scope for repeat mapping. Scope defines which data sources are to be selected for repeat mapping.
Repeat Criteria	Classifications	Allows selection of a classification for searching for data rows mapped or not mapped to selected categories and to which you want to repeat the mapping.
	Metadata	Allows selection of metadata fields that should match for different data rows selected according to the scope of repeat mapping for which you want to repeat the mapping. Refer List of metadata fields for all data source types by survey (Annex 1) and List of metadata fields of all data source type by secondary data source (Annex 2) to view metadata fields.
	Accounting Code	Allows selection of the accounting code for different data rows selected according to the scope of repeat mapping for which you want to repeat the mapping.

Note

To perform repeat mapping, you must select at least one repeat criteria.

6.2.8.1 Selecting repeat criteria

The repeat criteria are the characteristics that must be held in common for the mapping rule to be applied. You can select one or several criteria for repeat mapping. Selecting repeat criteria is explained in detail in the following sections.

6.2.8.2 Selecting classification criteria for repeat mapping

You can select classifications from the list of classifications, as well as mapping status and categories for repeat mapping.

To select classifications for repeat mapping, follow these steps.

1. In ***Repeat Criteria***, select the check box beside **Classifications** to enable the classification fields.

The classification fields are displayed.

2. Enter the details in the required fields, and then click **Next**.

> **Note**
>
> Click the add icon ( ) next to the classification categories to add more fields for classifications for repeat mapping.

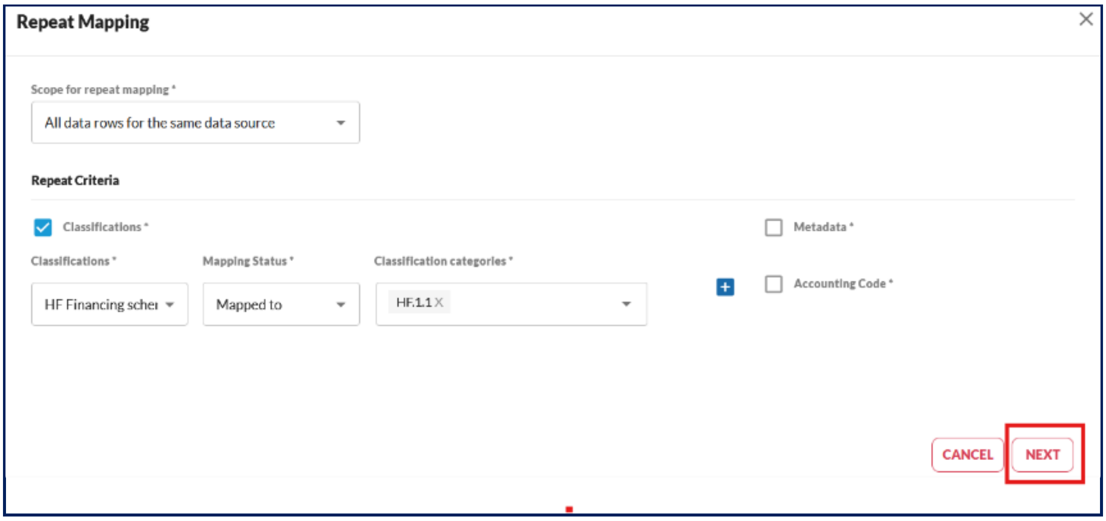


Fig. 6.97. Selecting classifications criteria for repeat mapping

Table 6.11 shows the fields on classification criteria for repeat mapping.

Table 6.11. Description of fields for classifications criteria for repeat mapping

Field name	Description
Classifications	Allows selection of the classification from the list to search expenditures that are mapped or not mapped to selected categories and for which you want to repeat the mapping.
Mapping Status	Allows selection of the status for data rows that need to be searched. There are two mapping statuses. • Mapped to: indicates that the selected category is mapped with the particular code. • Unmapped to: indicates that the selected category is not mapped to the particular code. Unmapped: indicates that the selected node is not mapped.
Classification categories	Allows selection of codes for selected categories from the list. **You can select more than one category in one field.**

The ***Repeat Mapping*** page is displayed.

To select the classifications, refer to Selecting classification criteria for repeat mapping.

Note

- "Unmapped": If you want to find data rows where any classification is unmapped, they can select "Unmapped" from the ***Mapping Status*** drop-down.
- When you select "Unmapped", the **Classification categories** field disappears.
- When you select any other option from the ***Mapping Status*** drop-down, the **Classification categories** field is displayed.

6.2.8.3 Selecting metadata criteria for repeat mapping

Repeat mapping can be applied by selecting rows using their metadata. Refer to List of metadata fields for all data source types by survey (Annex 1) and List of metadata fields of all data source types by secondary data source (Annex 2). If the scope is selected as "All data sources for all data source types", then the option to select metadata fields with survey and secondary is not shown. You will be shown budget line code, comments, ISIC code, ICD category and ICD subcategory, which are also fields common to all data source types, and descriptive information (1 to 5 fields).

To select metadata for repeat mapping, follow these steps.

1. Select the check box beside **Metadata**.

The list of metadata fields is displayed.

2. Select the required metadata fields from the list, and then click **NEXT**.

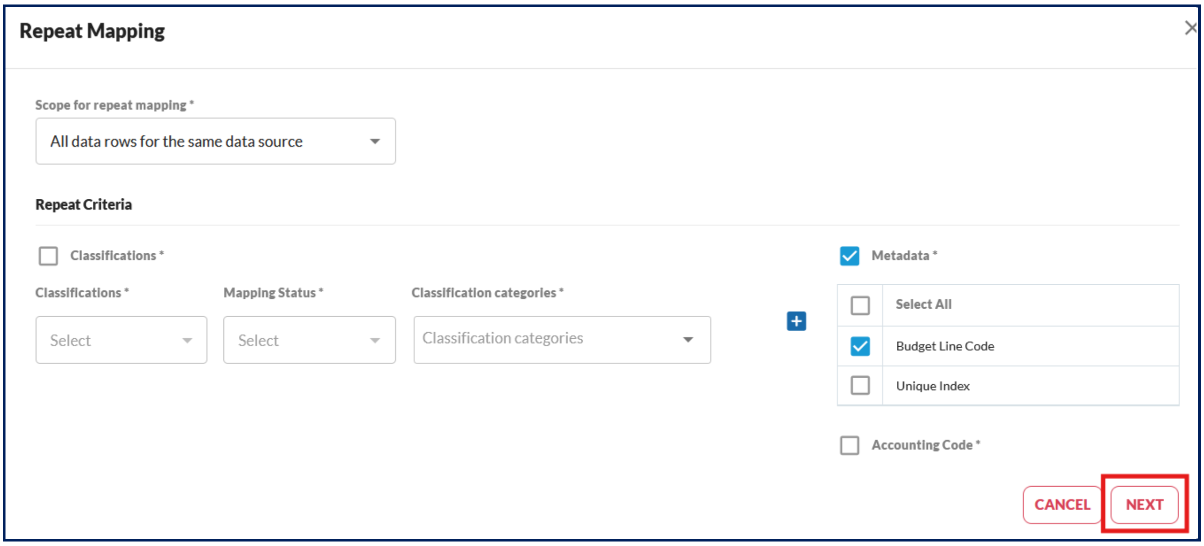


Fig. 6.98. Selecting metadata criteria for repeat mapping

The ***Repeat Mapping*** page is displayed.

To select the classifications, refer to Selecting classification criteria for repeat mapping.

Note

- When selecting metadata criteria, the value registered in the selected metadata field(s) must be exactly the same in the data rows to which repeat mapping has to be performed as in the source data row previously selected in the mapping graph.
- Only the metadata fields for which there exists any value for the current data row selected are shown.
- If the data source is marked as "Secondary", then the list shows metadata fields belonging to secondary methods as per the data source type.
- If the data source is marked as "Survey", then the list shows metadata fields belonging to surveys as per the data source type.

6.2.8.4 Selecting accounting code criteria for repeat mapping

The third criterion for repeat mapping is accounting code. An accounting code is a budget line code either created by a user while creating data rows (Adding a rata row) or used in a secondary data source (Importing secondary data). It is displayed on the ***Repeat Mapping*** screen only if the selected data row has a budget line code.

when you select accounting code as the mapping criteria, the data rows with the same digit(s) of accounting code are selected for repeat mapping (same means having the same character and same place in the budget line code).

To select the accounting code for repeat mapping, follow these steps.

1. Select the check box beside **Accounting Code**.

The accounting codes are displayed.

2. Select the required accounting code(s), and then click **NEXT**.

Note

The selected accounting code(s) turns blue, indicating that they are selected for repeat mapping.

Fig. 6.99. Selecting the accounting code

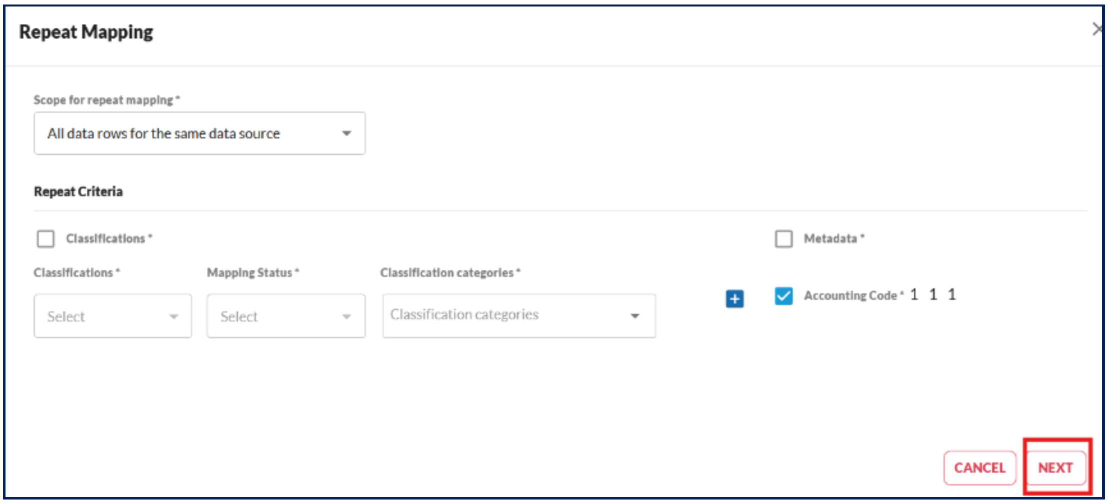


Fig. 6.100. Selecting an accounting code for repeat mapping

The ***Repeat Mapping*** page is displayed.

To select the classifications, refer to Selecting classification criteria for repeat mapping.

6.2.8.5 Selecting multiple criteria for repeat mapping

You can select the classification, metadata field, and accounting code simultaneously to perform repeat mapping.

There are two methods to apply two or three criteria together in repeat mapping:

1. logical AND
2. logical OR.

6.2.8.5.1 Using logical AND

The logical AND function allows you to perform repeat mapping using multiple criteria together. To satisfy this condition, all selected criteria must be fulfilled in the data rows to which you want to apply repeat mapping. That is, the mapping will only be applied to data rows that satisfy all the criteria.

To select logical AND for repeat mapping, follow these steps.

1. Select the check boxes for all three repeat criteria.
2. Select the required classifications, metadata fields, and accounting codes from the list.
3. Select **Logical AND** then click **NEXT**.

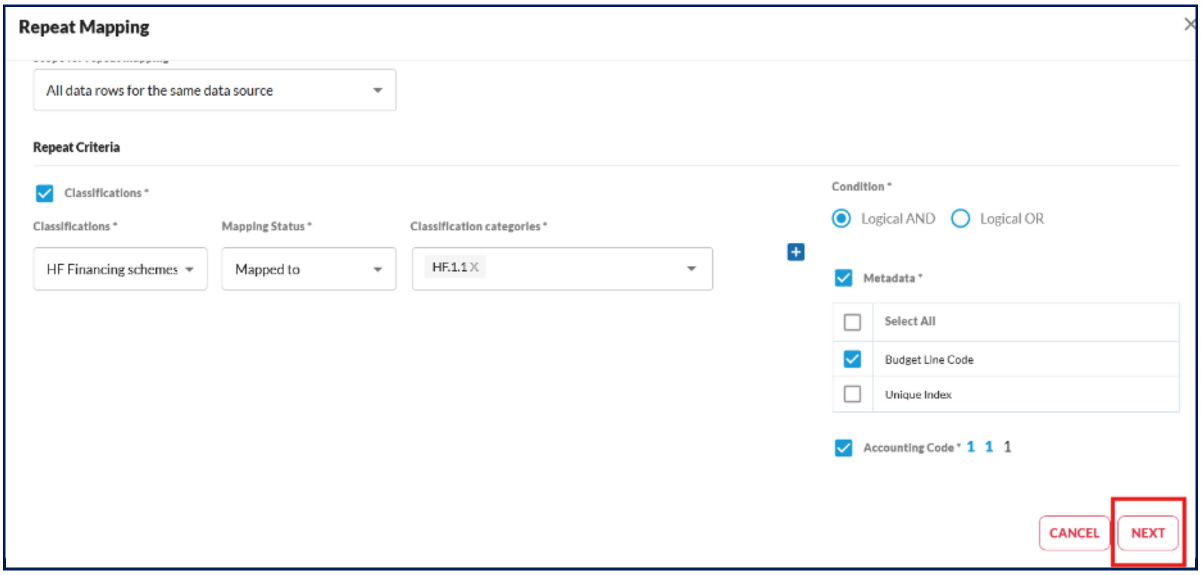


Fig. 6.101. Repeating mapping using logical AND

The ***Repeat Mapping*** page is displayed.

To select the classifications, refer to Selecting classification criteria for repeat mapping.

6.2.8.5.2 Using logical OR

The logical OR function allows you to perform repeat mapping using multiple criteria independently. Repeat mapping is performed if one of the conditions in the repeat criteria is met. That is, the mapping will be applied to all data rows that satisfy any one of the criteria.

To select logical OR for repeat mapping, follow these steps.

1. Select the check boxes for all three repeat criteria.
2. Select the required classifications, metadata fields and accounting codes from the list.
3. Select **Logical OR** then click **NEXT**.

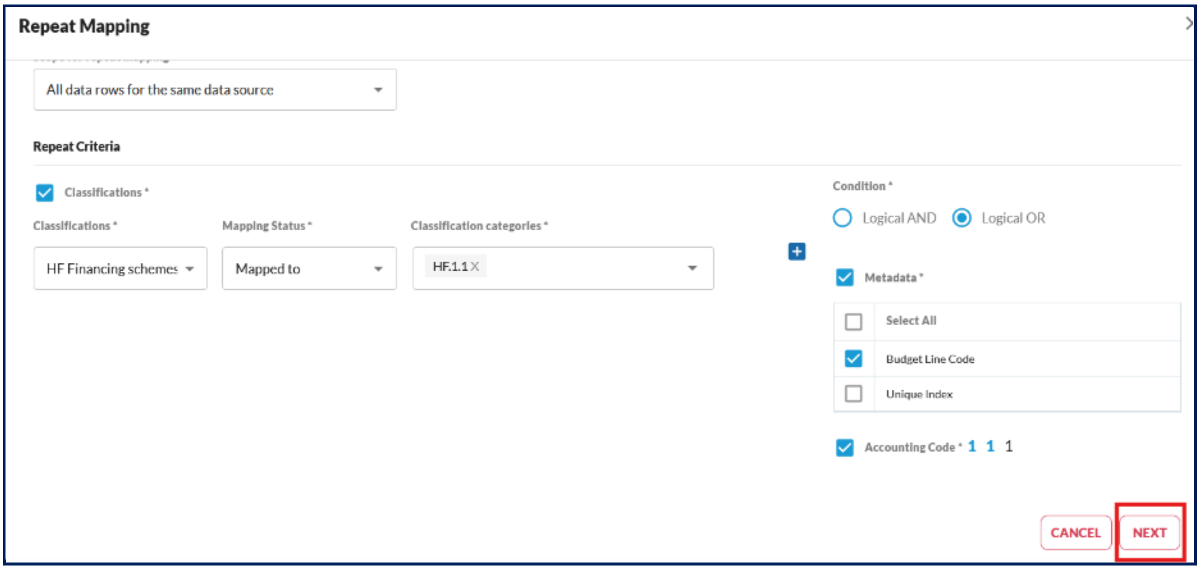


Fig. 6.102. Repeating mapping using logical OR

The ***Repeat Mapping*** page is displayed.

To select the classifications, refer to Selecting classification criteria for repeat mapping.

6.2.8.6 Selecting classifications and data rows for repeat mapping

To select classifications that you want to map using the repeat mapping function, follow these steps.

Before selecting classifications, you must select repeat mapping criteria.

1. To open the ***Repeat Mapping*** page, refer to Repeating a mapping steps 1 to 3 and Selecting repeat criteria.

The ***Classification selection*** page is displayed.

2. Select the classifications to perform repeat mapping.
3. Click **NEXT**.

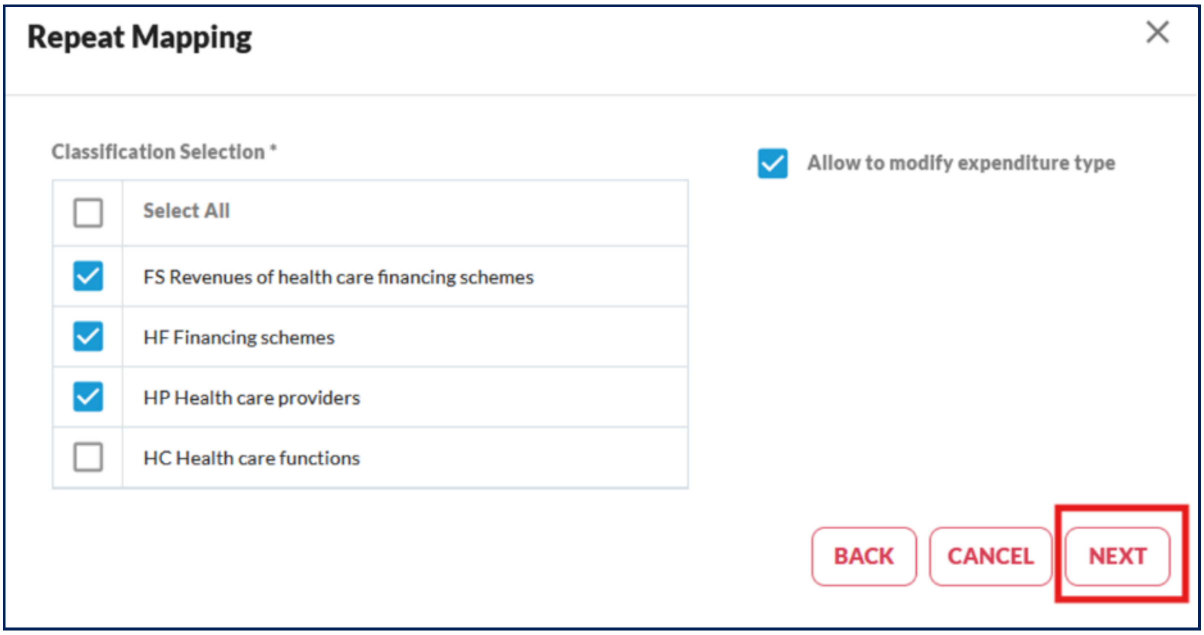


Fig. 6.103. Selecting classifications for repeat mapping

The *Repeat mapping on type of rows* screen is displayed.

Note

- Select the check box beside **Allow to modify expenditure type** to change the expenditure type (current, capital, related) of the data rows selected as per scope and repeat criteria. Repeat mapping is performed on these data rows.
- Selecting this field is optional.

4. Select the required fields in order to select the data rows that meet previously selected criteria and click **REPEAT**.

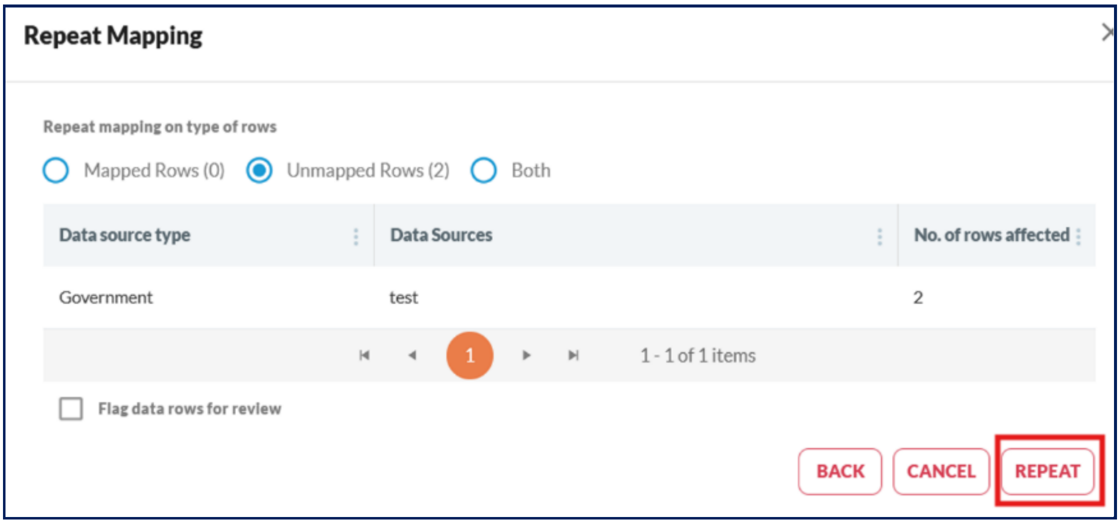


Fig. 6.104. Repeating mapping on types of rows

Table 6.12 shows the fields on the ***Repeat mapping on type of rows*** screen.

Table 6.12. Description of fields and buttons on the *Repeat mapping on type of rows* screen

Field/button name	Description
Mapped Rows	Selects the data rows that are already mapped for repeat mapping.
Unmapped Rows	Selects the data rows that are not mapped for repeat mapping.
Both	Selects both the mapped and unmapped data rows for repeat mapping.
Flag data rows for review	Marks the data rows that are selected for repeat mapping to review later. Selecting this field is optional.

Repeat mapping is applied, and a confirmation message is displayed.

A notification message is shown when repeat mapping starts as well as when it has completed. More details are shown in the notification message.

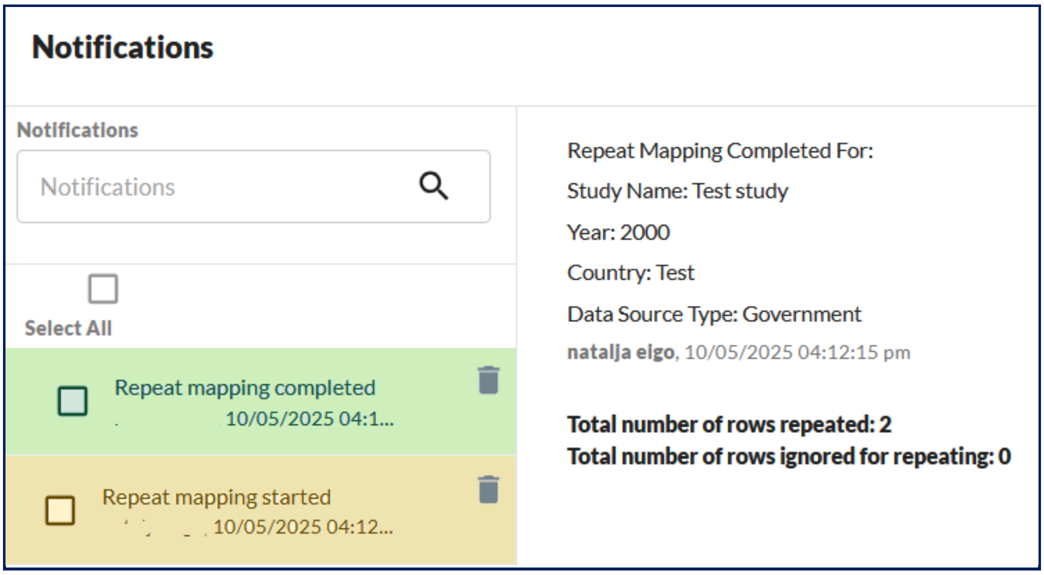


Fig. 6.105. Notification for repeat mapping started and completed

> **Note**
>
> - If a repeat mapping causes a quality check error (a mapping that is not allowed), then the repeat mapping is not performed on data rows for which mapping is not possible.
> - If a repeat mapping causes a quality check warning, the repeat mapping is performed. Refer to Warnings during mapping.

6.2.9 Find and replace a classification

This feature allows you to search for one or several mapped categories. It is possible to replace all selected codes at the same time. You can select all categories and replace them with new codes. To find and replace a classification, follow these steps.

1. On the MAPPING module, click **Find and Replace**.

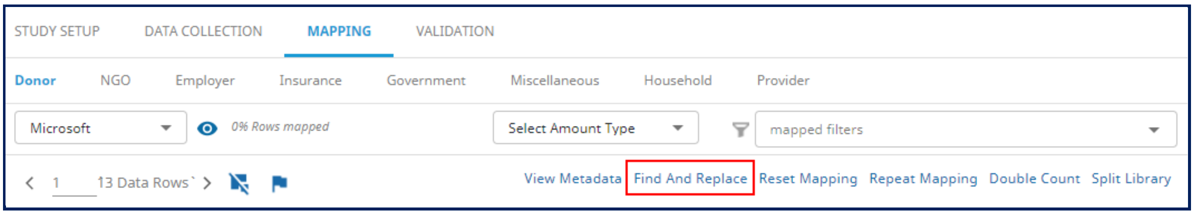


Fig. 6.106. Selecting the "Find and Replace" option

The ***Find and Replace Classification*** page is displayed.

2. Under the Find Classification Category tab, fill in the required details and then click **APPLY FILTERS**.

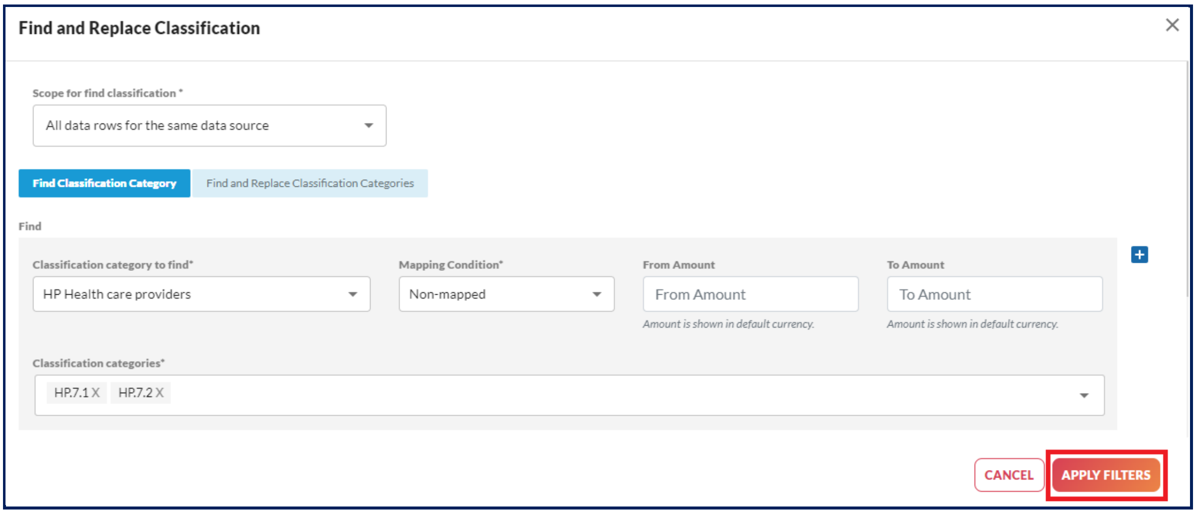


Fig. 6.107. Selecting the classification to find

Note

Click the add icon (+) on the right corner of the Find section of the **Find and Replace Classification Categories** tab to add more fields to use in the search for classifications. If more than one classification is added, the search will find data rows where selected classifications are mapped; a logical AND is applied.

For example, if HP is mapped to HP.1.1 and HC is mapped to HC.1.3 and you search for both categories, the search will find all data rows in which both codes are mapped. All must be mapped for the row to be found.

The category you are searching for is displayed. The scope for finding a code is by data source; for example, if the donor data source type is open and the search is for a code HP.1.2, then all data sources under donor will be searched for the mentioned criteria and results will be shown.

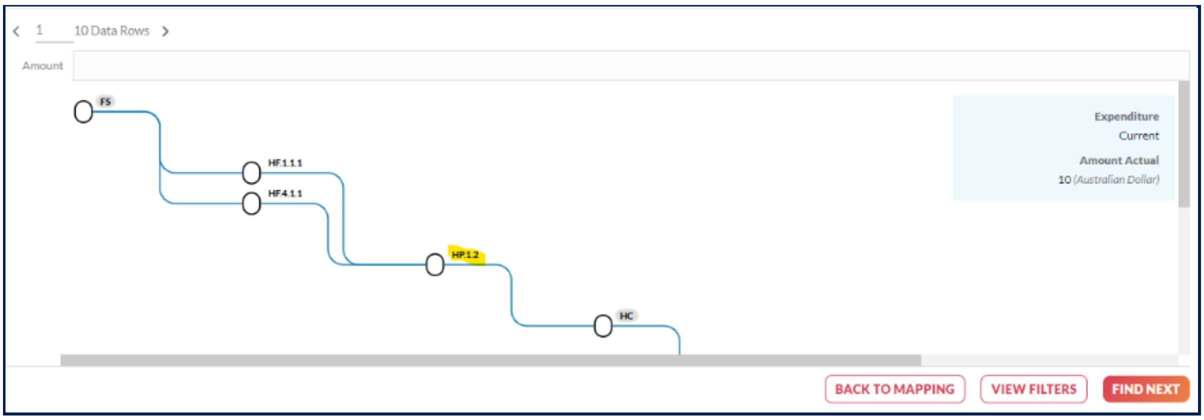


Fig. 6.108. Finding a classification category code

3. You can map a node or change the mapping from this screen. Select any node for which you want to change the mapping, or choose an unmapped node, and the MAPPING submodule opens.

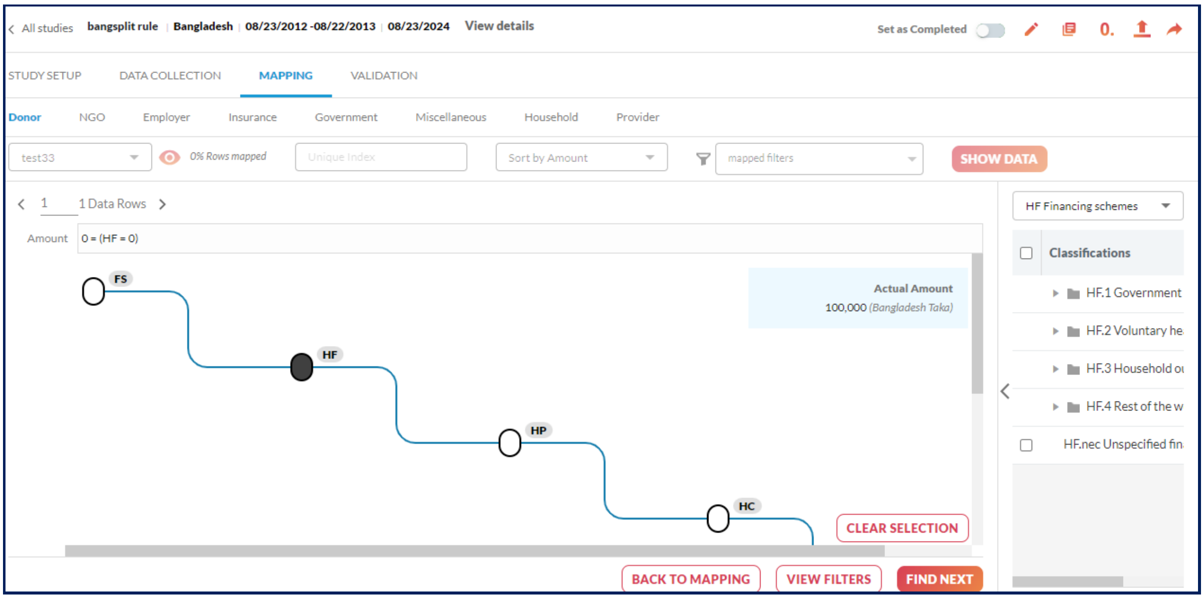


Fig. 6.109. The MAPPING module

4. Select the classification category and click **MAP**.

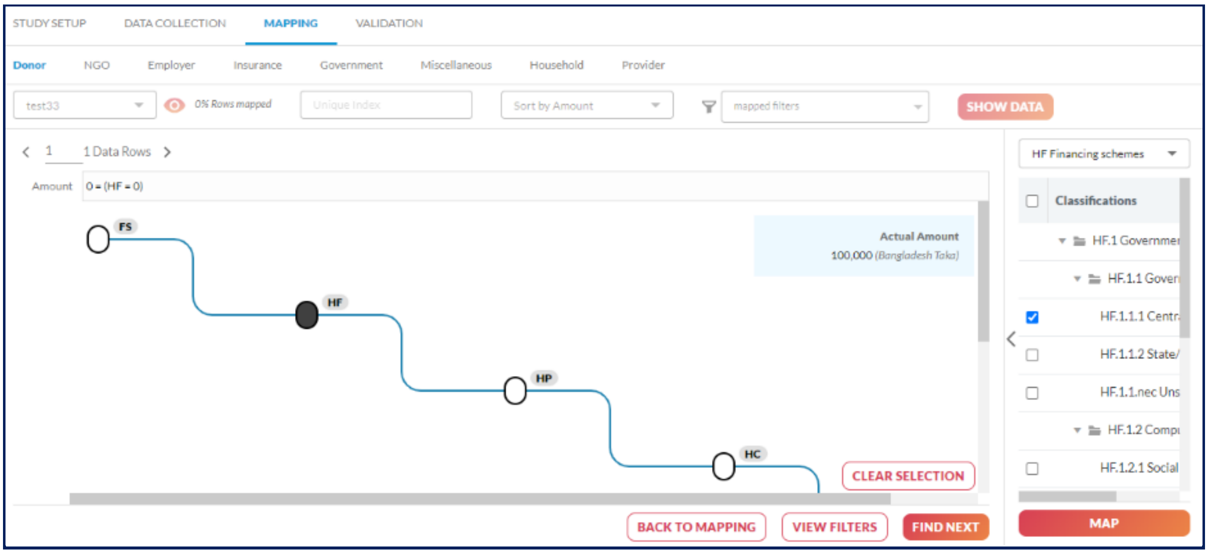


Fig. 6.110. Selecting a classification category

5. The category is mapped and a notification of success is shown.

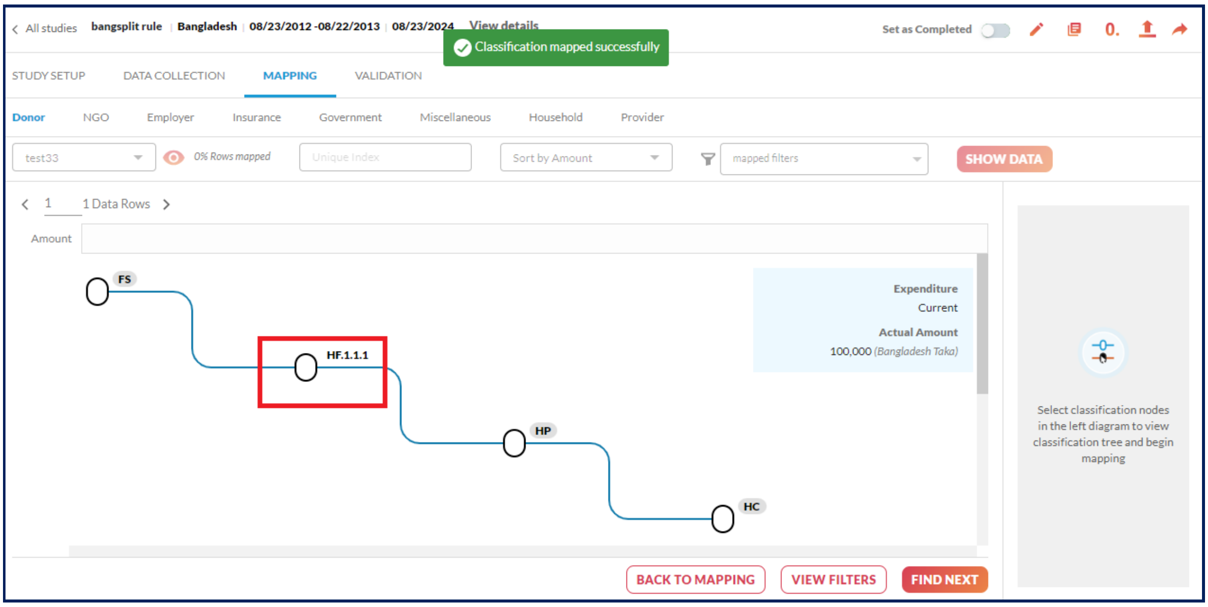


Fig. 6.111. Notification that mapping is successful

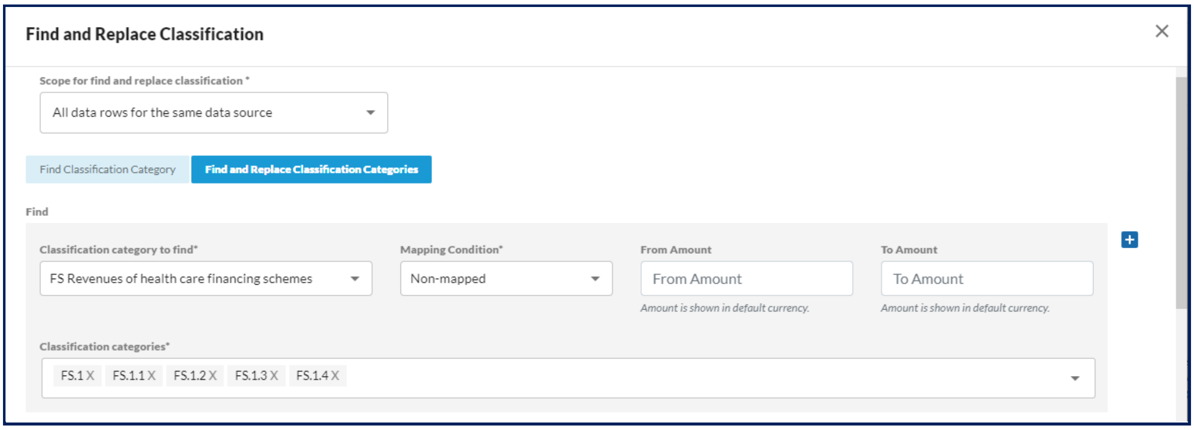
Table 6.13 shows the fields and buttons present on the **Find Classification Category** tab.

Table 6.13. Description of fields on the Find Classification Category *tab*

Field name	Description
Classification category to find	Allows selection of the classification that you are searching for.
Mapping Condition	Allows selection of the status for data rows that are to be searched. There are two mapping statuses: • Mapped to: Indicates that the selected classification is mapped to the particular categories. • Not mapped to: Indicates that the selected classification is not mapped to the particular categories. Unmapped: Indicates that the selected category is not mapped.
From Amount	Sets the minimum limit of the amount associated with the category you are searching for.
To Amount	Sets the maximum limit of the amount associated with the classification you are searching for.
Classification categories	Allows selection of classification categories. You can select more than one classification category. If more classification categories are selected, the search will find rows in which either of the selected categories is mapped. A logical OR is applied in classification categories.

6. Under the **Find and Replace Classification Categories** tab, fill in the required details and then click **APPLY FILTERS**. This will replace not only classification but category as well. To replace category, select the category to replace under “Mapped category to replace”.

7. Select “Replace” under Action (replace, unmap).



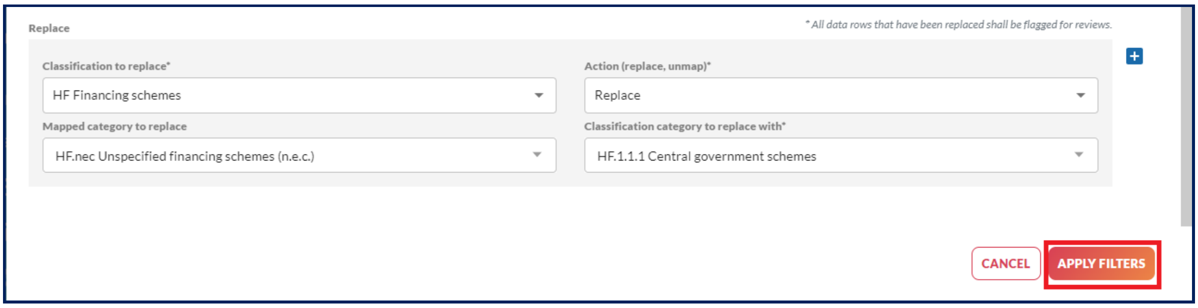


Fig. 6.112. Selecting classification or classification category to find (top) and replace (bottom)

Note

- Click the add icon ( ) on the right corner of the “Replace” section of the **Find and Replace Classification Categories** tab, to add more fields for classifications to be replaced.
- Select **Replace** in the **Action (replace, unmap)** field.
- On selecting the action as replace, the fields **Mapped category to replace** and **Classification category to replace with** appear.
- Perform mapping by selecting the **Find Classification Category** tab. Mapping does not work for the option “Find and replace classification categories”.
- Change mapping of an already-mapped classification using the **Find Classification Category** tab.
- When performing mapping from **Find Classification Category** tab, all mapping rules apply, such as creation of split rules and flagging of warnings and errors.

To replace a category on the currently displayed data row, click **REPLACE**. The classification or classification category is replaced by the selected classification category for the currently displayed data row.

To replace the category for all data rows, click **REPLACE ALL**. The classification or classification category is replaced by the selected classification category for all data rows where the search (find) criteria match under the same data source type. For example, all data rows for which the criteria match will be replaced for all data rows in data sources under the same data source type.

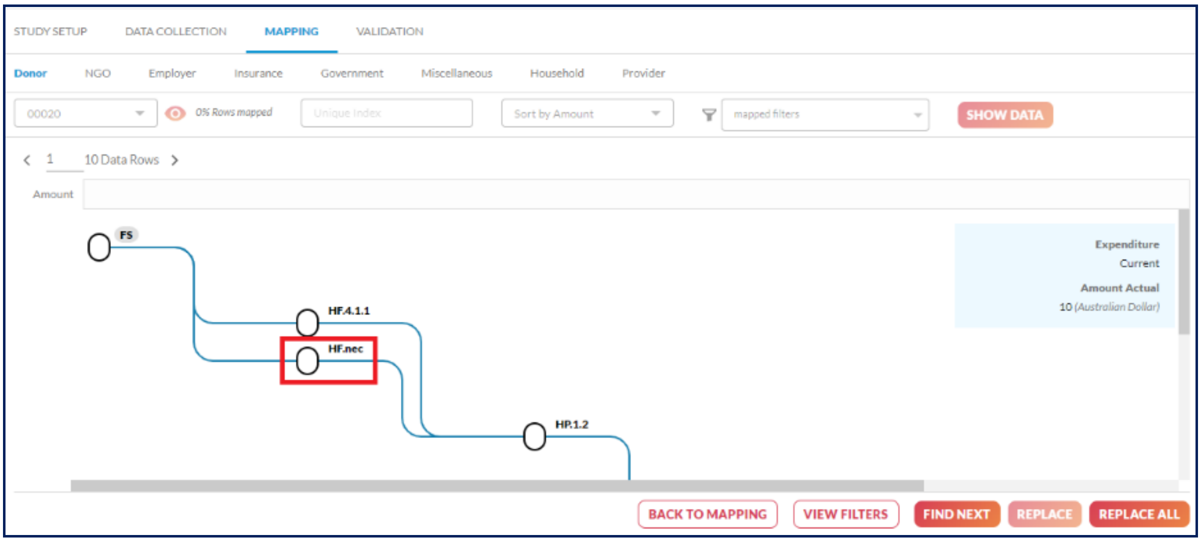


Fig. 6.113. Finding and replacing a classification category

Table 6.14 shows the fields and buttons present on the ***Find and Replace Classification Categories*** screen.

Table 6.14. Description of the fields on the Find and Replace Classification Categories tab

Field name	Description
Classification to replace	Selects the classification you want to replace from the list.
Classification category to replace with	Selects the category with which you want to replace. (Mandatory, single selection from the list of classification categories).
Action (replace, unmap)	Selects the action you want to perform. “Replace” will replace the selected classification category with another classification category. “Unmap” will unmap the selected classification. By default, “Replace” is selected.
Mapped category to replace	Selects the mapped categories to replace. Selecting this field is not mandatory.

Note

- The fields for the "Find classification" section are the same as those on the **Find classification** tab.
- You can find and replace using various criteria. For example, you can search for a one classification category, but replace a category in another classification. For example, you can search for data rows mapped to FS.1.1 and replace the mapping of HF with HF.1.1.1.
- The data rows that have had their mapping replaced are flagged for review.
- If for some data row the replacement gives "Warning mapping", then a warning flag is raised for that row. The replace mapping still takes place. You can silence the warning mapping and log a message if required.
- If the replacement contains a non-allowed mapping according to quality check conditions, then the mapping is not replaced for that data row.
- "Unmapped" option: If you want to find data rows where any category is unmapped, then select the "Unmapped" option from the ***Mapping Condition*** drop-down.
- When you select the "Unmapped" option, the **Classification categories** field disappears. When you select any other option from the ***Mapping Condition*** drop-down, then the **Classification categories** field is displayed.

Example – replace classification category

- Find condition: You find category mapped to FS.1 (selecting parent category implies selecting subcategories).
- Replace condition:
  - replace classification FS.
  - condition as "Replace"
  - source category as FS.1.1.
  - category to replace with FS.2

The above example will find all data rows where FS node is mapped to FS.1.1, including the split rules, and replace FS.1.1 with FS.2. A new split rule is created in the split library as FS.1.1 and FS.2.

More details are shown in the notification message when replacing all.

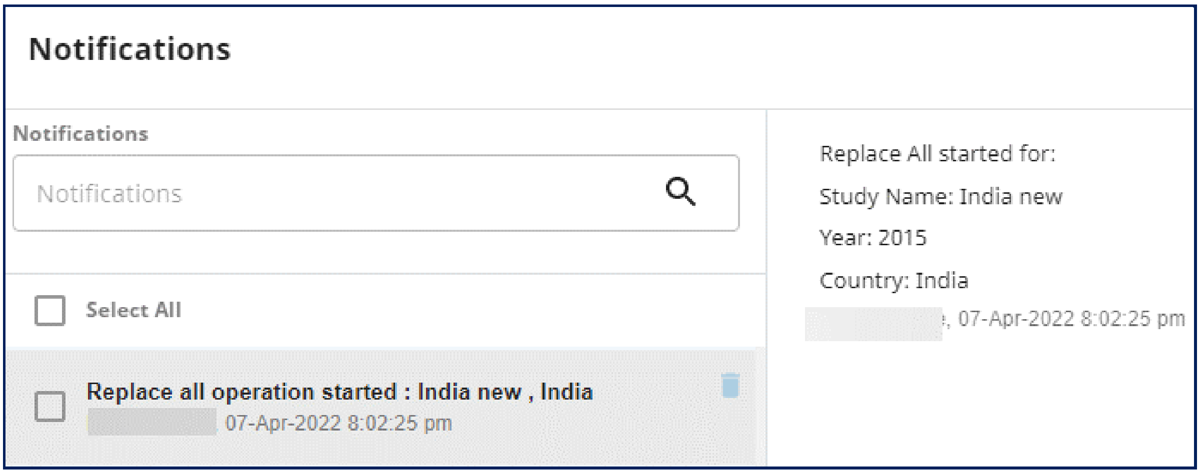


Fig. 6.114. Notification that "Replace all" has started

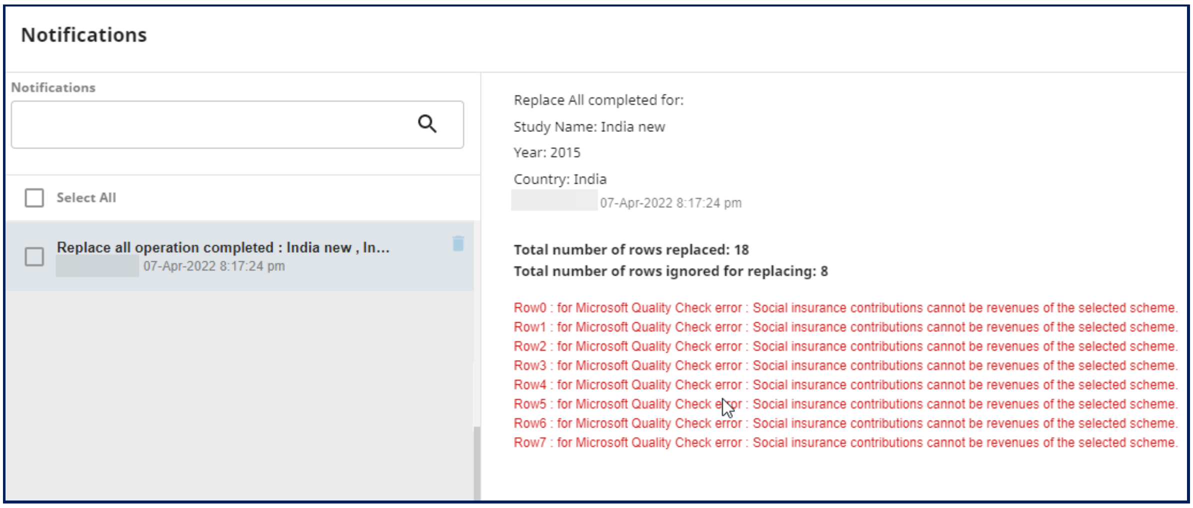


Fig. 6.115. Notification for that "Replace all" has completed

The start and completion notifications contain the details for replacing all. Additional details such as study name, country and year are shown. It also includes a count of rows that are replaced and ignored, along with the error messages for the rows that were not replaced due to not complying with quality check rules.

6.2.10 Unmap a mapped category by using find and replace

Find and replace can be used to unmap a mapped category so that you can reduce time and efforts by unmapping a set of data rows instead of repeatedly unmapping single data rows. To unmap a mapped category using find and replace, follow these steps.

1. On the MAPPING module click **Find and Replace**.

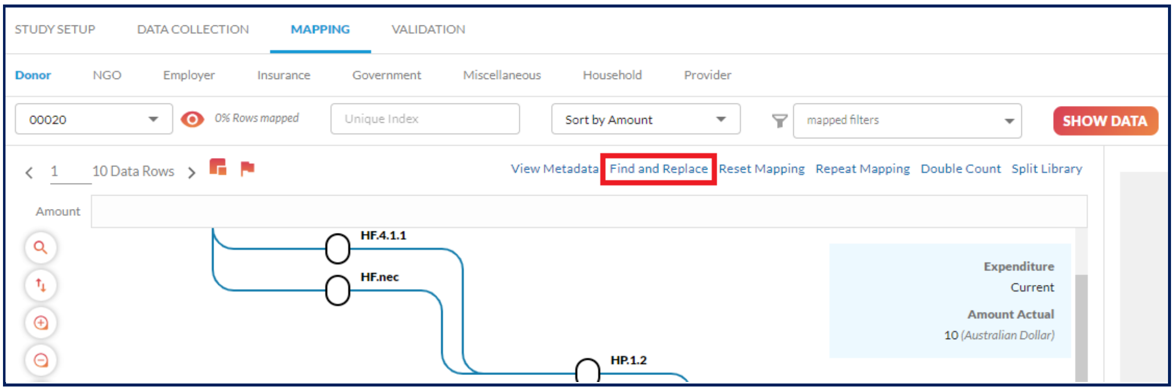


Fig. 6.116. Selecting the "Find and Replace" option

The ***Find and Replace Classification*** page is displayed.

2. Select the Find and Replace Classification Categories tab.
3. Select **Unmap** from the *Action (replace, unmap)* drop-down and fill in the required details and then click **APPLY FILTERS**.

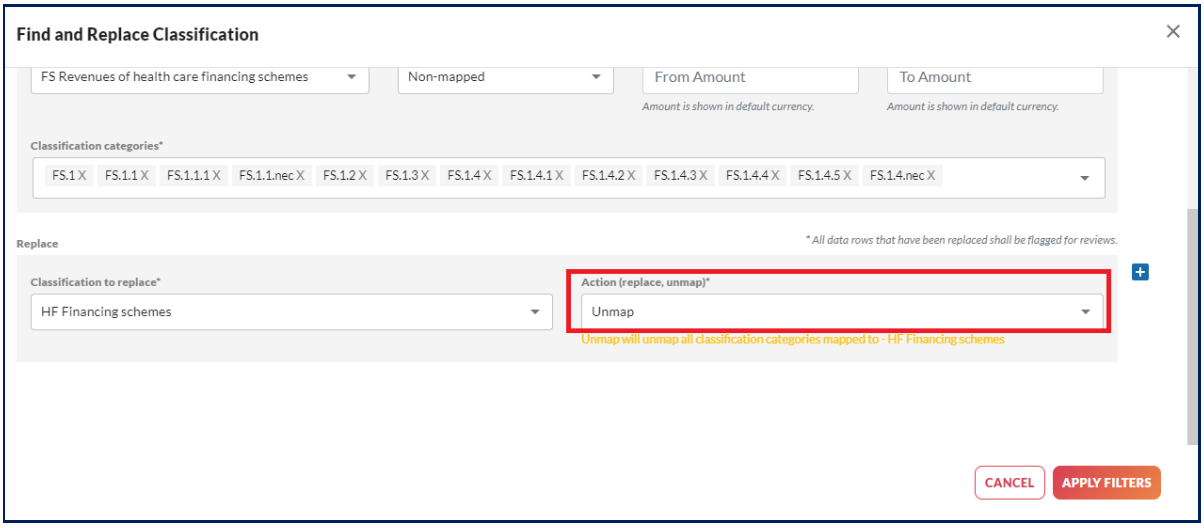


Fig. 6.117. Selecting the "Unmap" option

To unmap a classification on the currently displayed data row, click **UNMAP**. The classification is unmapped for the currently displayed data row.

To unmap a classification for all data rows, click **UNMAP ALL**. The classification is unmapped for the currently displayed data row where the search (find) criteria match under the same data source type.

For example, all data rows where criteria match will be unmapped for all data rows in data sources under the same data source type. If HF is mapped to HF.2.1.1.1 and HF.2.1.1.2, unmap will unmap HF and the split rule will also get deselected.

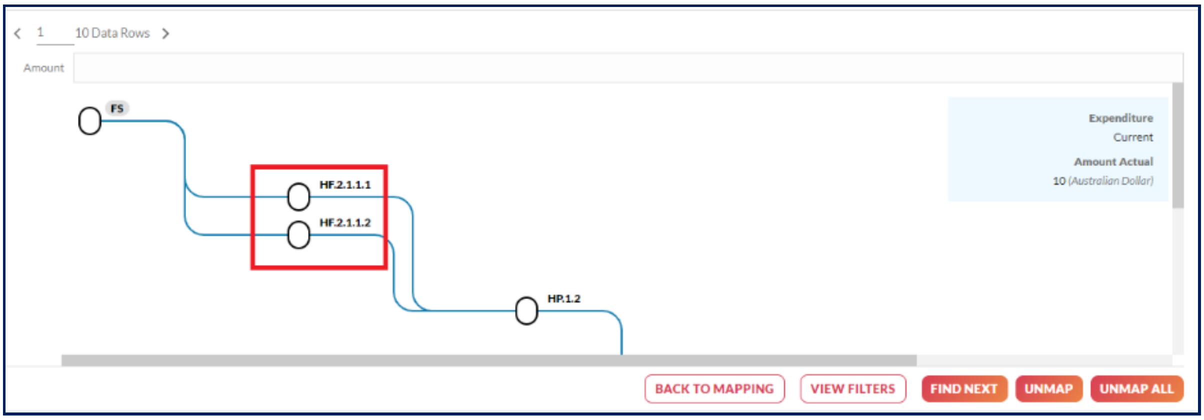


Fig. 6.118. Unmapping a classification

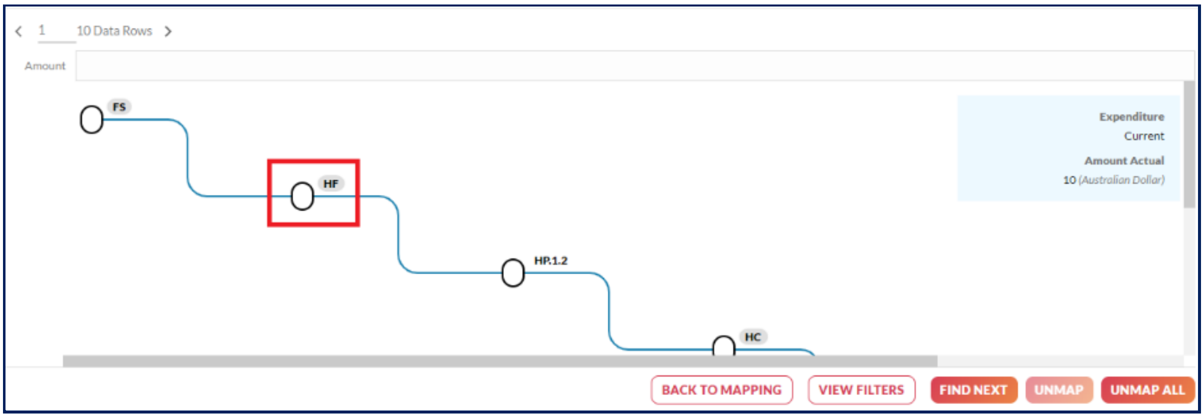


Fig. 6.119. An unmapped classification

4. A warning is displayed on the on the find and replace pop-up when the “Unmap all” option is selected. Click **YES**.

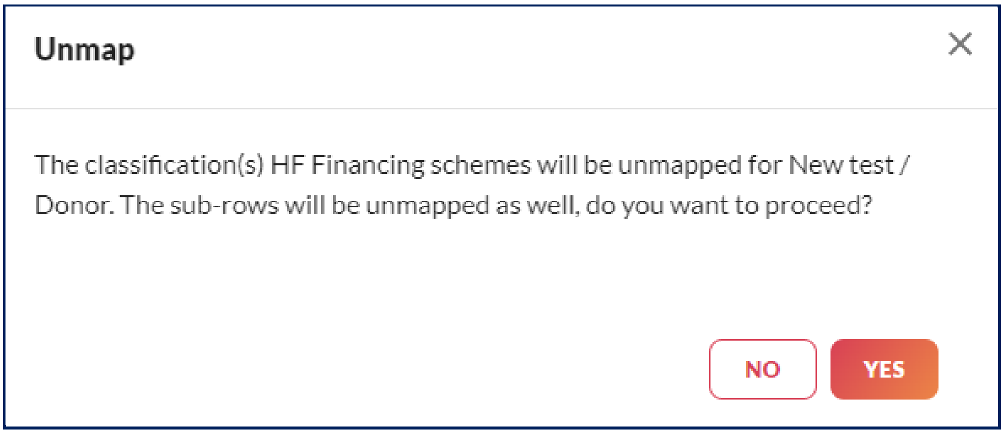


Fig. 6.120. Unmap classification notification

5. A confirmation pop-up will appear. Click **YES**.

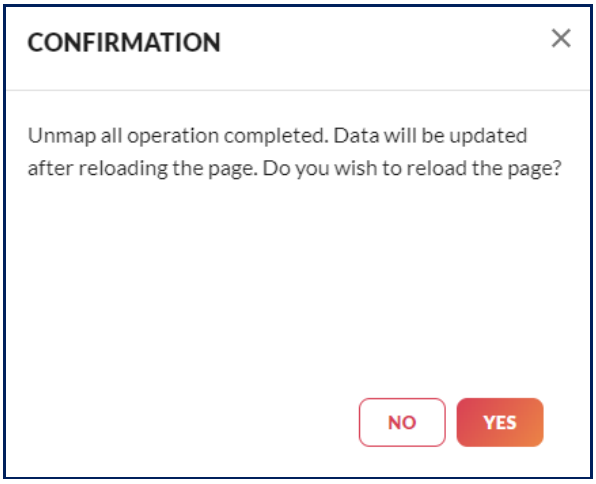


Fig. 6.121. Confirmation of unmap all

More details are shown in the notification message for replacing all.

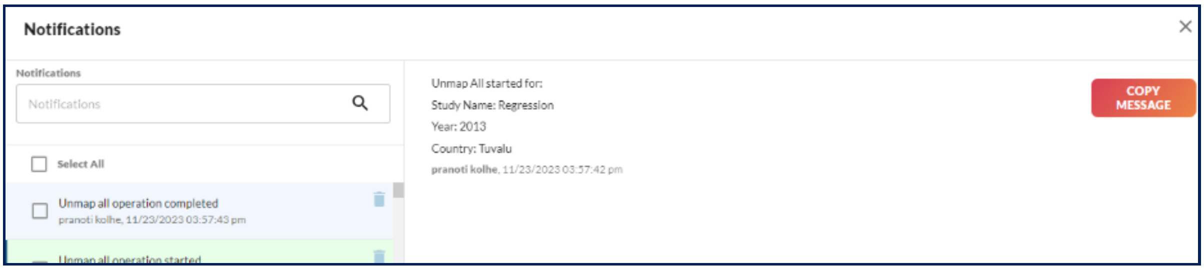


Fig. 6.122. Notification that unmap all has started

Fig. 6.123. Notification that unmap all has completed

The start and completion notifications contain the details for the unmap all operation. Additional details such as study name, country and year are shown. It also includes a count of rows that are unmapped and ignored, along with the error messages for the rows that were not unmapped due to quality check issues.

6.2.11 Exporting a mapping

The export mapping feature allows transferring and storing records of mapping data outside of HAPT. The exported mapping data are saved in the default `.xlsx` or `.csv` file format, which can later be used for importing the mapping. You can select the data source type, data source, metadata fields, and data rows that you want to export and the format in which you want to export the mapping. To export a mapping, follow these steps.

It is assumed that you have already performed the mapping of data rows in the study. To perform mapping, refer to Performing mapping.

1. On the **MAPPING** module screen, click the export icon ( ).

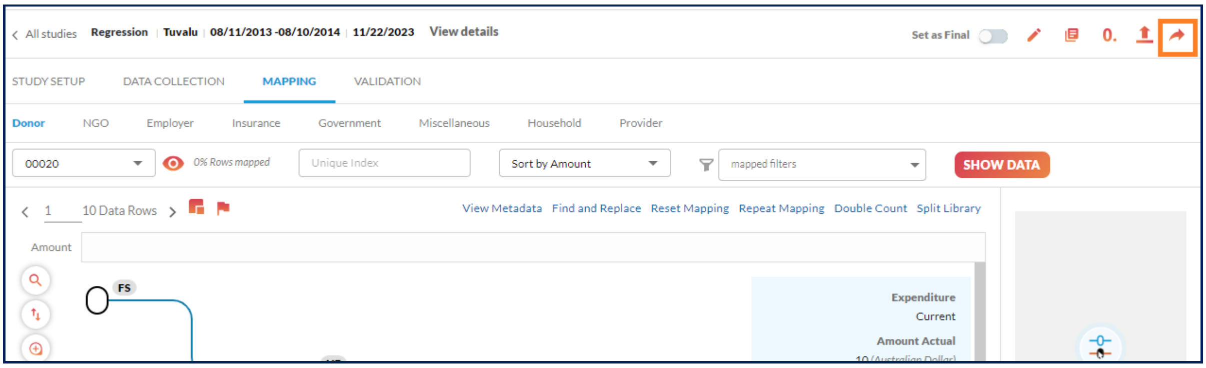


Fig. 6.124. Opening the export dialog

The first screen of the *Export Mapping* form is displayed.

2. Select the data source types and the corresponding data sources, and then click **NEXT**.

Fig. 6.125. The *Export Mapping* form (first screen)

Note

Click on the data source type to view the corresponding data sources list.

Table 6.15 shows the fields present on the ***Export Mapping*** form.

Table 6.15. Description of the fields on *Export Mapping* form (first screen)

Field name	Description
Choose Data Source Type	Selects or deselects the data source types for export mapping.
Choose Data Sources	Selects or deselects the corresponding data sources for export mapping.

3. Select the details from the required fields, and then click **EXPORT**.

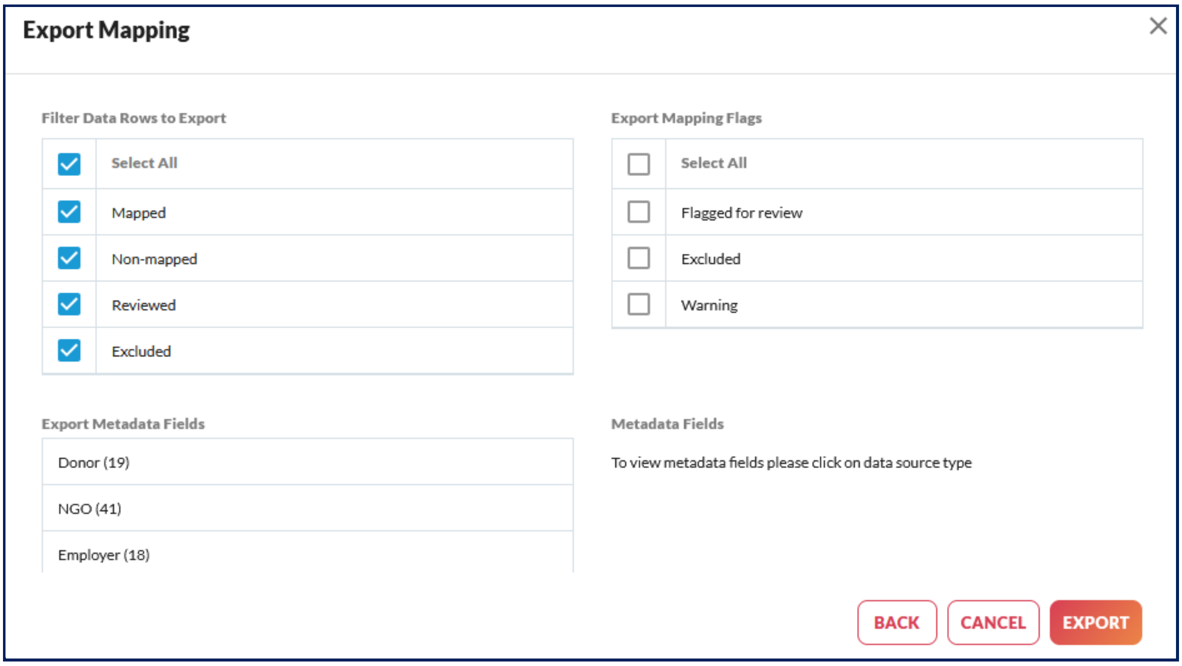


Fig. 6.126. The *Export Mapping* form (second screen)

Note

Click on the data source type to view the corresponding metadata fields list.

The export dialog box is displayed.

Table 6.16 shows the fields present on the ***Export Mapping*** form.

Table 6.16. Description of the fields on *Export Mapping* form (second screen)

Field name	Description
Filter Data Rows to Export	Applies the filters for the data rows to be selected for export mapping. For example, you can select data rows that are mapped only for export mapping. The filters are: • mapped • non-mapped • review flag (reviewed or flagged for review) • excluded.
Export Mapping Flags	Selects or deselects the mapping flags for export mapping.
Export Metadata Fields	Selects or deselects the data source type for which you want to export the metadata fields.
Metadata Fields	Selects or deselects metadata fields for export mapping.
Export all data in one Excel sheet	Exports all data in one sheet for all data source types. If this check box is checked, separate sheets are not created for each data source type. If not checked, each data source type has its own sheet in the outputted Excel file. For export to `.csv`, all data are always in a single sheet.

4. Select the file format and enter the required name for the file in the **Export As** field. For Excel, provide watermark text if you want and then click **EXPORT**.

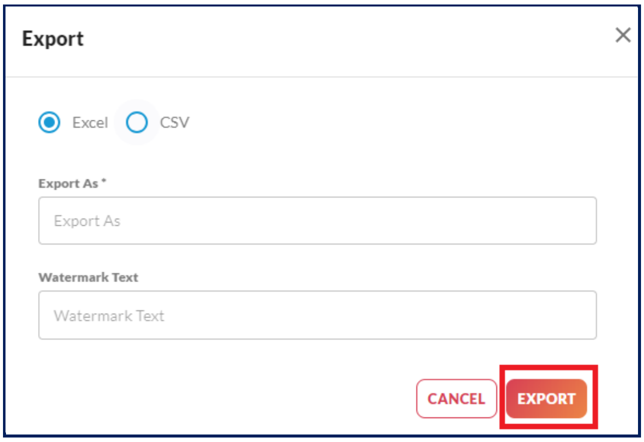


Fig. 6.127. Exporting a mapping

5. Once the export has completed, a notification for starting and completing export mapping is shown.

The start and completion notifications contain the details for the export mapping operation. Additional details such as study name, country and year are shown.

When selected, the completion notification message shows a link to download the exported file. Click **DOWNLOAD** to save the file on your local machine.

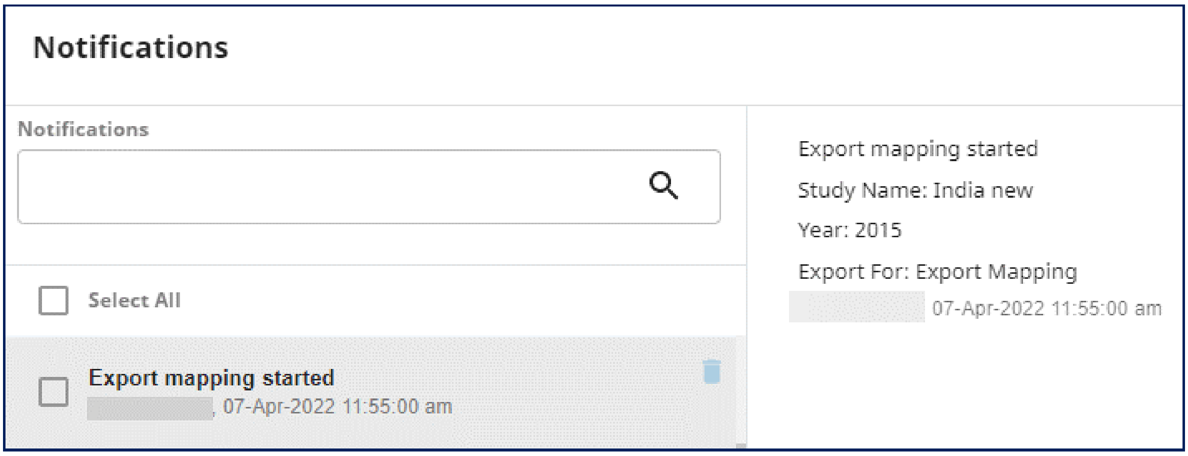


Fig. 6.128. Notification that export mapping has started

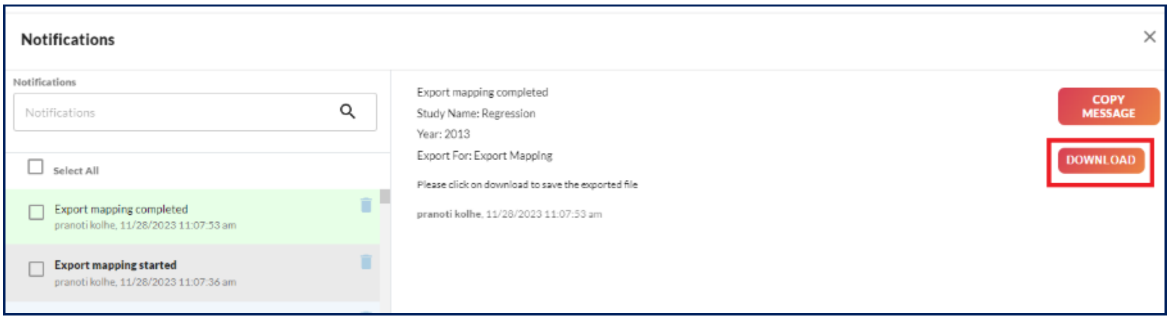


Fig. 6.129. Notification for that export mapping has completed

6. Select the “Export mapping completed” notification and click **DOWNLOAD** (Fig. 6.129).

The mapping is downloaded as a `.xlsx` or `.csv` (comma-separated variable)file, downloaded to the default download location of the web browser. The Excel or CSV file contains all metadata fields selected, and a few more details, such as:

- row number of the data source
- data source type
- data row amount
- currency
- sub-row amount
- selected filters from the screen
- selected flags from the screen
- classifications
- selected metadata fields as per data source type.

Row	Data	Data	Data	Curre	Sub F	Revie	Exclu	Warn	Data	DIS	FA	FP	FS	FS.RI	HC
1	Donor	Global Fu	1312376	US Dollar	1312376	No	No	No		1.3	1.1.1.1	nec	7.1.1	1.5.2.8	9
2	Donor	Global Fu	1312376	US Dollar	1312376	No	No	No		1.3	1.1.1.1	nec	7.1.1	1.5.2.8	9
3	Donor	Global Fu	1312376	US Dollar	1312376	No	No	No		1.3	1.1.1.1	nec	7.1.1	1.5.2.8	9
4	Donor	Global Fu	2590035	US Dollar	2590035	No	No	No		1.3	1.1.1.1	nec	7.1.1	1.5.2.8	9
5	Donor	Global Fu	2590035	US Dollar	2590035	No	No	No		1.3	1.1.1.1	nec	7.1.1	1.5.2.8	9
6	Donor	Global Fu	2590035	US Dollar	2590035	No	No	No		1.3	1.1.1.1	nec	7.1.1	1.5.2.8	9
7	Donor	Global Fu	843357	US Dollar	843357	No	No	No		1.3	1.1.1.1	nec	7.1.1	1.5.2.8	9
8	Donor	Global Fu	843357	US Dollar	843357	No	No	No		1.3	1.1.1.1	nec	7.1.1	1.5.2.8	9
9	Donor	Global Fu	843357	US Dollar	843357	No	No	No		1.3	1.1.1.1	nec	7.1.1	1.5.2.8	9
10	Donor	Global Fu	1582565	US Dollar	1582565	No	No	No		1.3	4	nec	7.1.1	1.5.2.8	9

Row	HF	HK	HP	Budg	Comm	Desc	Desc	Desc	Desc	Desc	Desc	NGO	Proje	Proje	Sourc	Fu
1	1.1.1.1		7.1.4	3331									Departm	LAO-T-GFMOH		
2	1.1.1.1		7.1.4	3331									Departm	LAO-T-GFMOH		
3	1.1.1.1		7.1.4	3331									Departm	LAO-T-GFMOH		
4	1.1.1.1		7.1.4	3331									Departm	LAO-H-GFMOH		
5	1.1.1.1		7.1.4	3331									Departm	LAO-H-GFMOH		
6	1.1.1.1		7.1.4	3331									Departm	LAO-H-GFMOH		
7	1.1.1.1		7.1.4	3331									Departm	LAO-708-GO9-M		
8	1.1.1.1		7.1.4	3331									Departm	LAO-708-GO9-M		
9	1.1.1.1		7.1.4	3331									Departm	LAO-708-GO9-M		
10	2.2.nec		1.1.2	3331									RAI	Global fund - RAI		

Fig. 6.130. Sample of an export mapping file

6.2.12 Import a mapping from another study

Importing a mapping allows reuse of existing mappings from other studies. A mapping exported from one study in `.xlsx` file format can be imported and used in another study. Mappings can also be directly transferred from one study to another.

You can select the data source type, data source and classifications for which you want to import mapping of an existing study.

The prerequisite to perform import mapping is to have at least two studies for the same country in the application (a source study from which mapping will be imported and a destination study to which mapping will be applied). To import the mapping, follow these steps.

1. On the MAPPING module screen, click the import icon ( ). The opens the ***Import Mapping*** screen.
2. Select the study whose mapping you want to use. This is the source of the mapping – the source study.

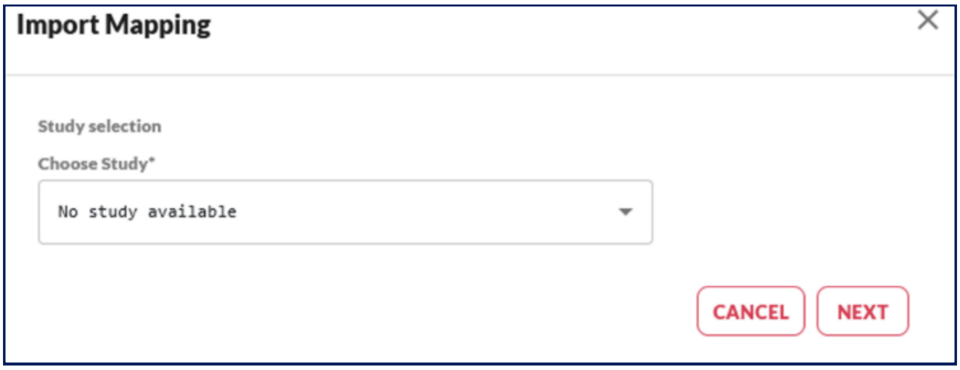


Fig. 6.131. Selecting the source study for import mapping

3. Click **NEXT**.
4. Select the source study data source types. Click **Choose Data Source Type** to view possible data sources.

Note: You must select the appropriate check box, and also click on the name of the data source type to open the list of data sources on the right.

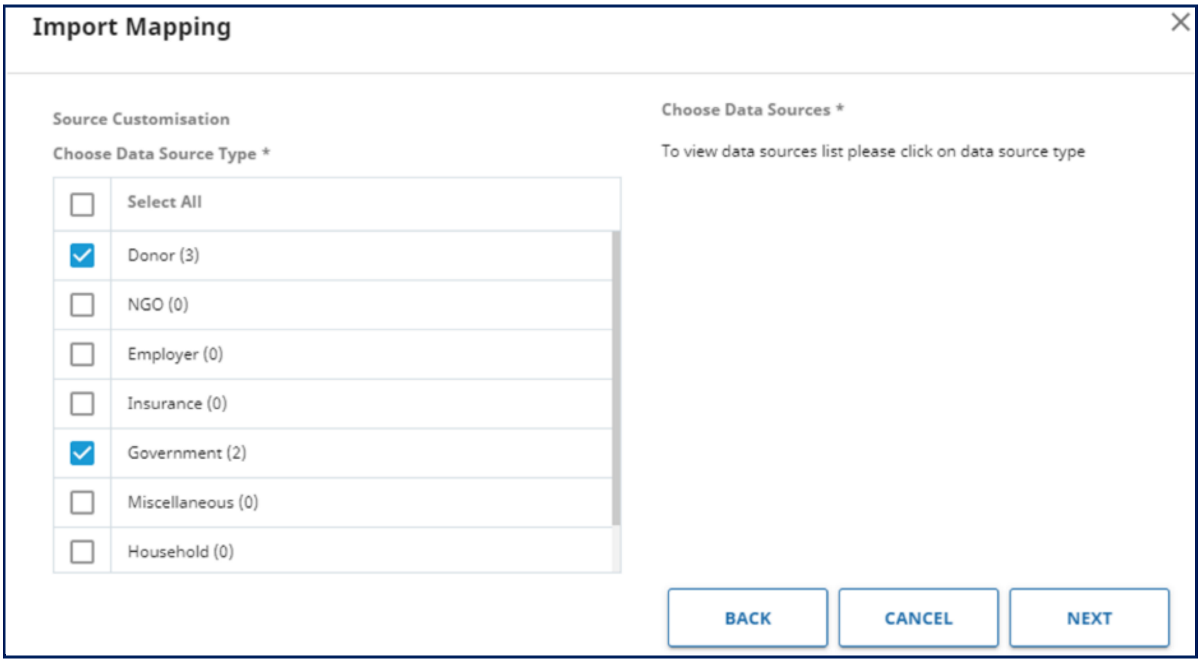


Fig. 6.132. Selecting the data source type from the source study

5. Click **NEXT**.
6. Select the destination study data source types. Click **Choose Data Source Type of current study** to view the data sources.

Define the correlations by mapping destination study data sources and source study data sources.

7. Click on the name of the data source in the left grid and then select the check box of the data source in the right grid.

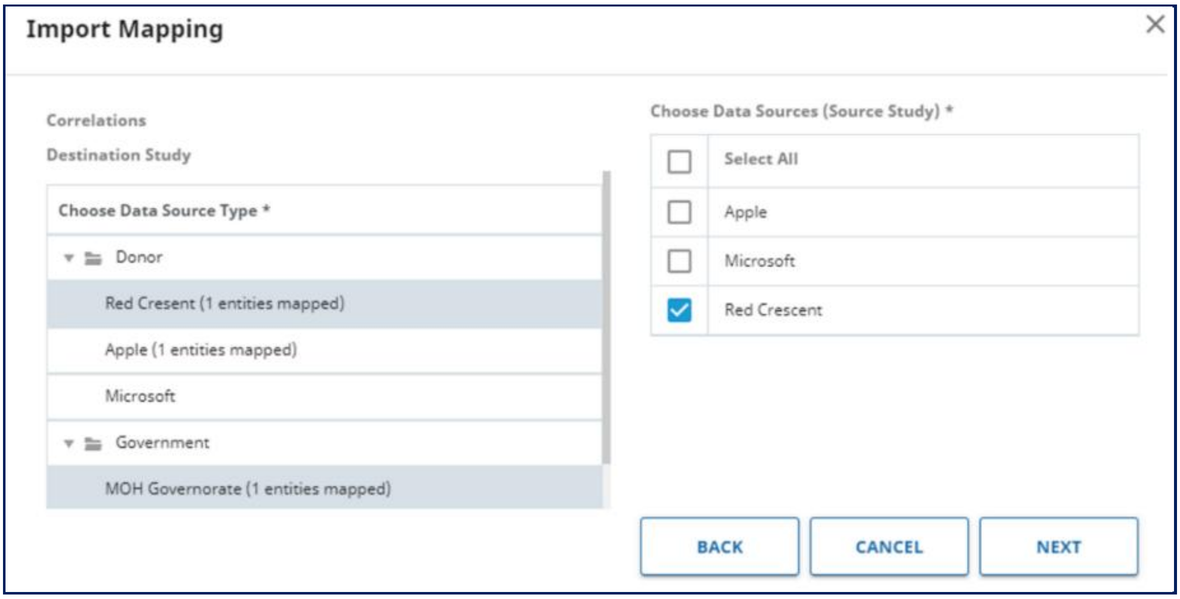


Fig. 6.133. Selecting data source type from destination study

A notification shows the “entities mapped”.

8. Select the classifications to be imported.

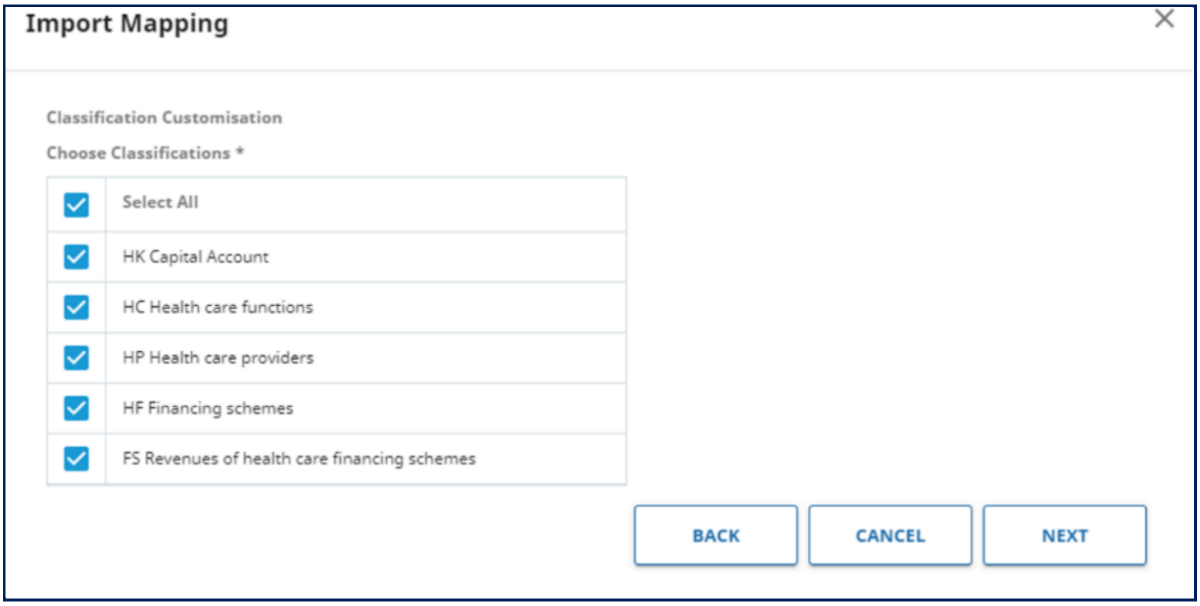


Fig. 6.134. Selecting classification mapping to be imported

9. Click **NEXT**.
10. Select the metadata fields which should match between the source study and the destination study to import the mapping.
11. Select other conditions and click **IMPORT**.

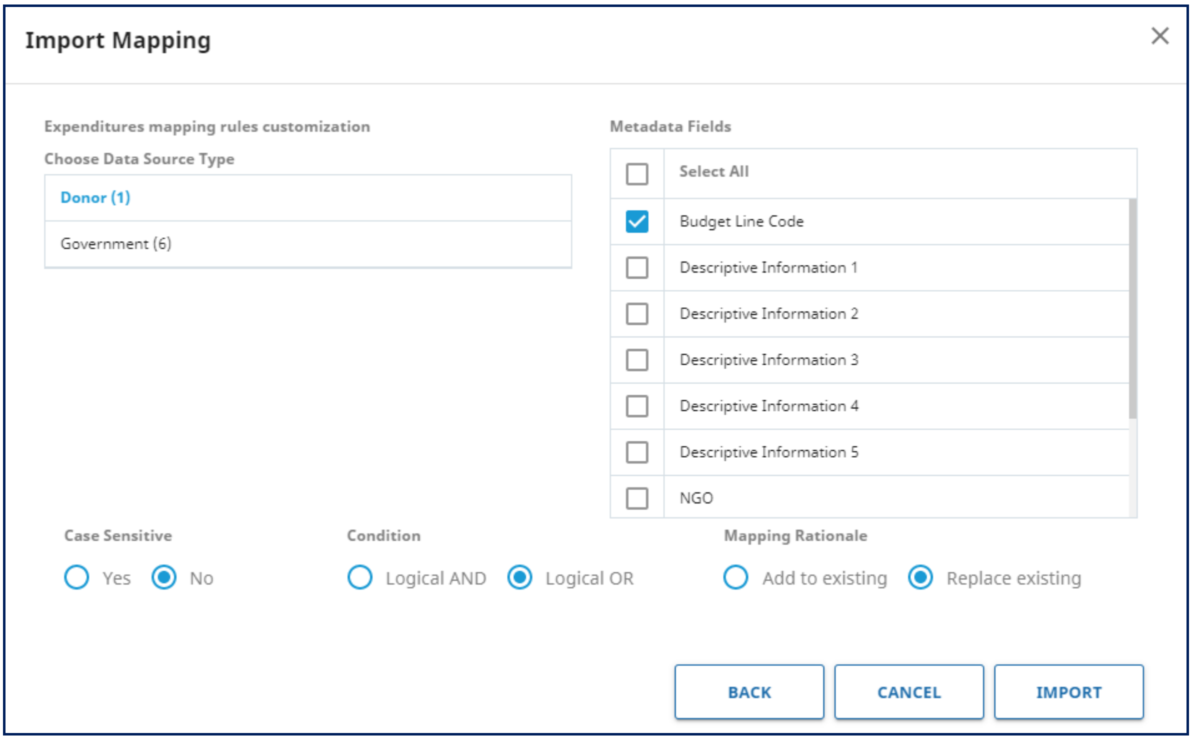


Fig. 6.135. Selecting metadata field criteria to import a mapping

A notification is shown when import mapping starts, and a success message and a notification are shown when import of the mapping has completed.

More details are shown in the notification message for import mapping.

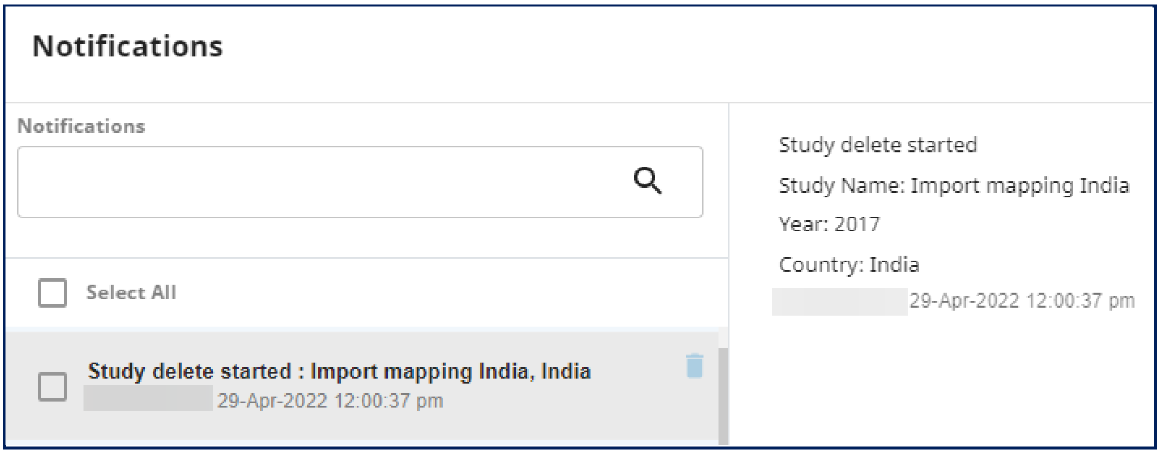


Fig. 6.136. Notification that import mapping has started

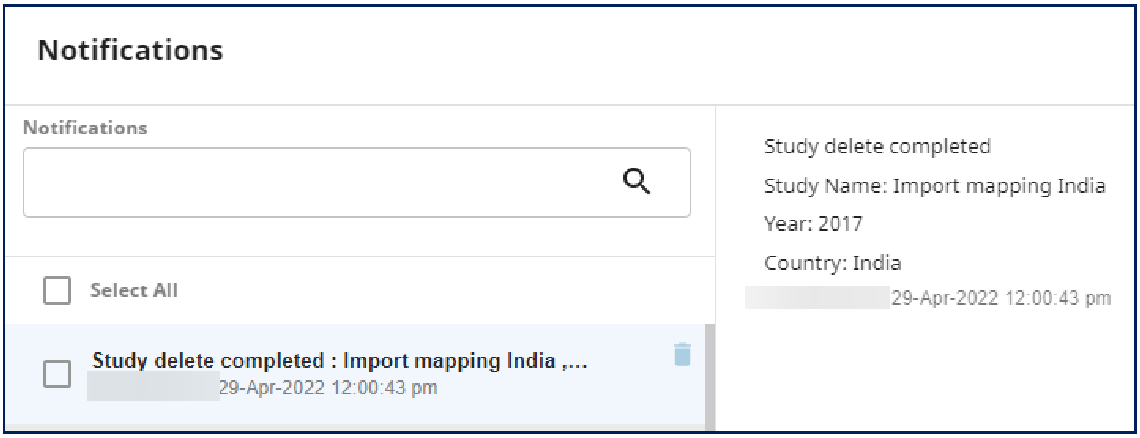


Fig. 6.137. Notification that import mapping has completed

The start and completion notifications contain the details for the import mapping operation. Additional details such as source study name, destination study name and classifications imported are shown.

Table 6.17. Description of fields on the *Import Mapping* form

Field name	Description
Choose Study	Selects the study whose mapping is to be imported into the current study.
Source customization Choose Data source type	Selects data source types and data sources from the source study.
Destination customization Choose Data source type	Selects data source types and data sources from the destination study.
Correlations	Defines correlations by mapping each data source from the destination study to another data source in the source study. Automatic mapping will happen between source and destination if names match.
Classifications	Selects classifications to be imported.
Metadata fields	Selects the metadata fields that should be matched as a condition while importing the mapping.
Case Sensitive	Selects whether the search for metadata fields should be case-sensitive. Case-sensitive means the search is sensitive to the use of capital letters. For example, “Donor” and “donor” are considered different by a case-sensitive search. Yes – search metadata with case-sensitive search. No – search metadata without case-sensitive search.
Condition	When multiple metadata fields are selected, you must select between the logical AND and logical OR conditions.

Field name	Description
Mapping Rationale	The mapping rationale, optionally reported by a user (as a comment in the MAPPING module) is also imported. Depending on the selection, it merges the rationale with an existing one or replaces the rationale.

Note

- Split rules are also imported.
- When metadata fields match more than one data row, only the first data row that shows a match is mapped.
- The data rows whose mapping were flagged in the import mapping are flagged in the destination study as well.
- Any mapping rationale for mapping, which was included by a user, is also imported. You can overwrite this text with the existing rationale. If "Add to existing" is chosen, then all the comments added for the data row are imported and added to the existing comments for that data row in the destination study, if any (depending on the matched metadata fields). If mapping rationale is set to replace existing, then any comments in the destination study are replaced by those in the source study (depending on the matched metadata fields).

6.2.13 Resetting mapping

The reset mapping feature removes the mapping of all classifications from an entire data row. It helps you reconfigure the mapping. To reset mapping, follow these steps.

1. On the MAPPING module, click **Reset Mapping**.

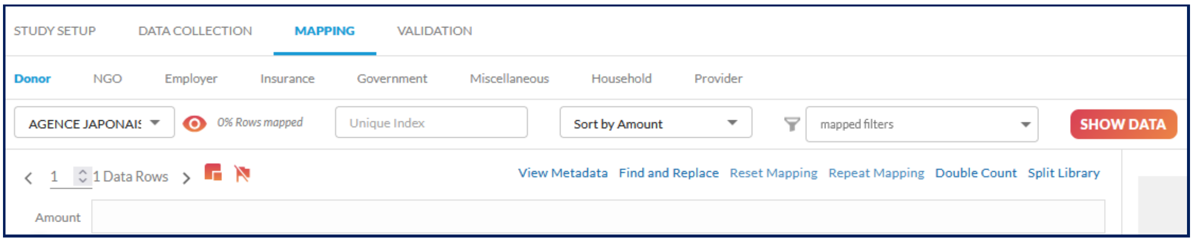


Fig. 6.138. Selecting the option to reset mapping

A message asking you to confirm your action is displayed.

2. To confirm, click **YES**.

The mapping was reset successfully.

> **Note**
>
> This action resets the mapping of all classifications of a data row. If you want to unmap only part of the classifications, you should select mapped node(s) in the mapping tree and click **UNMAP**.

6.2.14 Double counting after mapping

You can check for double counting before mapping and after mapping. To know more about double count before mapping, refer to Identifying double counting. This section explains how to add a new rule for double counting checking, to apply the rule after data have been mapped. It also explains how to edit and delete the double count rule.

After the data have been mapped, it may still be that some expenditures are counted twice. By default, all expenditures are included in the included expenditures and the double counting after mapping feature allows selection of the expenditures you want to exclude. Thus, when the expenditures are identified with double count, you need to decide which expenditures to exclude. Double counting after mapping can be checked for all data source types.

To perform double count check after mapping, a TL should create a double count rule in the study and apply it. The TL can also edit and delete a double count rule. Double count check after mapping can be performed only by a TL.

Some double counting rules may already be built into the tool for convenience. They cannot be edited or deleted, but it is not obligatory to apply them.

6.2.14.1 Adding a new double count rule

A TL can add a new double count rule for a particular study. To add a double count rule for a study, follow these steps.

It is assumed that you have already opened a relevant study. Refer to Opening an existing study.

1. To display the mapping tree, refer to Performing mapping steps 1 to 5.
2. Click **Double Count**.

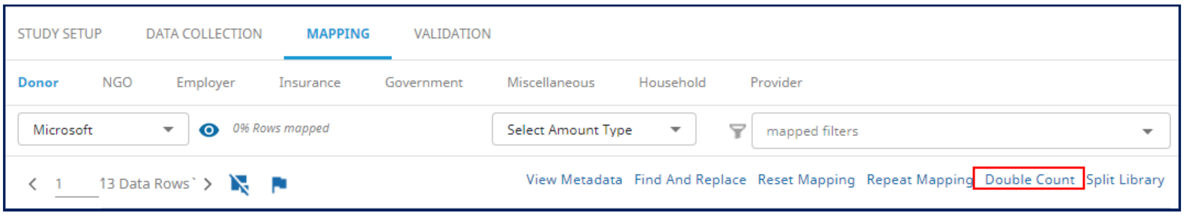


Fig. 6.139. Selecting double count in MAPPING

The ***Double count*** page is displayed.

3. Click **ADD NEW RULE**.

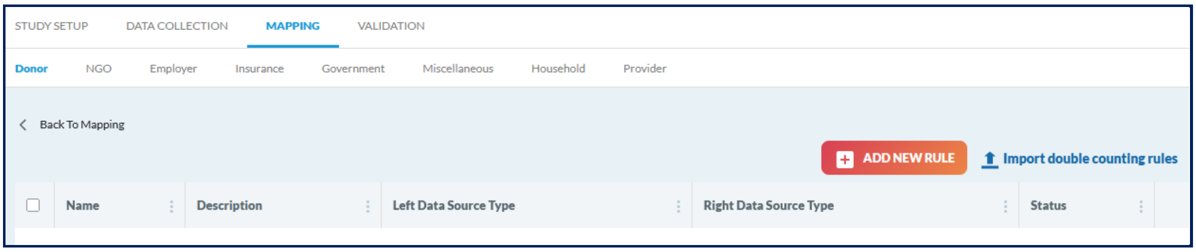


Fig. 6.140. Adding a new rule for double count

The ***Add New Rule*** form is displayed.

4. Enter the details in their respective fields, and click **ADD**.

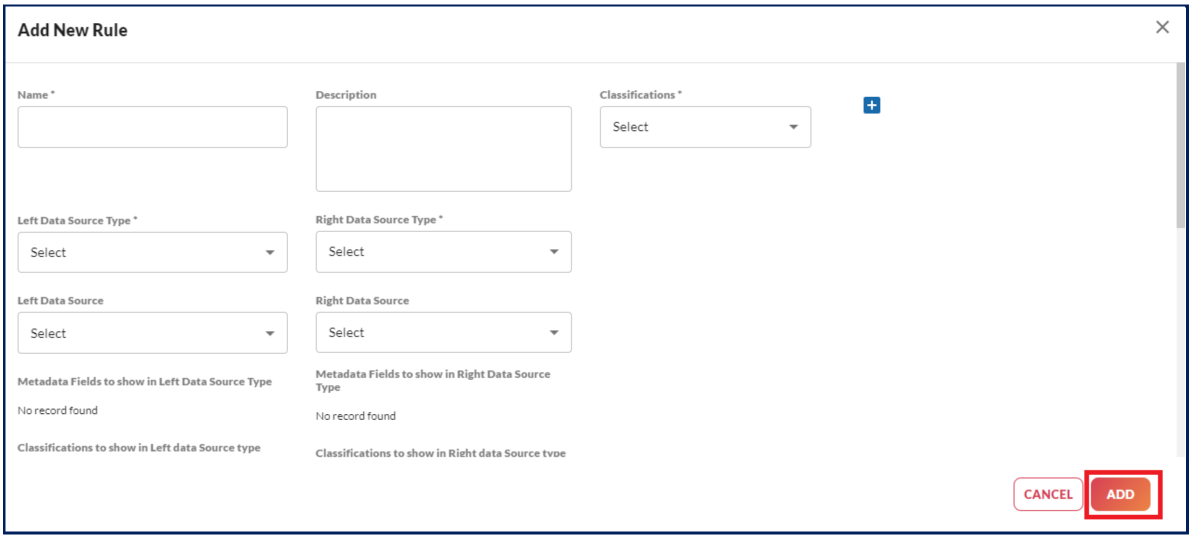


Fig. 6.141. The *Double count* form

The double count rule is added, and a confirmation message is displayed. Table 6.18 shows fields and buttons presented in the ***Add New Rule*** form.

Table 6.18. Description of fields and buttons in the *Add New Rule* form

Fields/buttons	Description
Name	Assigns a name to the new rule for double counting.
Description	Provides additional information for the new rule.
Left Data Source Type	Selects the data source type (donors, NGOs etc.) that will appear on the left side of the comparison table while performing double counting.
Right Data Source Type	Selects the data source type that will appear on the right side of the comparison table while performing double counting.
Left Data Source	The list of data sources that are available under selected data source type (left side of screen) is displayed here. Select any one of the data sources from the list. Data rows of the selected data source will be displayed while applying the double counting rule. Only data sources that have data appear in the list.
Right Data Source	The list of data sources that are available under selected data source type (right side of screen) is displayed here. Select any one of the data sources from the list. Data rows of the selected data source will be displayed while applying the double counting rule. Only data sources that have data appear in the list.
Metadata Fields to show in Left D Source Type	Selects the metadata fields that will appear on the left side for the selected data source type of the comparison table. Metadata allow a better understanding of the data while performing double counting.
Metadata Fields to show in Right Data Source Type	Selects the metadata fields that will appear on the right side for the selected data source type of the comparison table. Metadata allow a better understanding of the data while performing double counting.
Classifications to show in Left data Source type	Selects the classifications that will appear on the left side for the selected data source type of the comparison table when the rule is applied.
Classifications to show in Right data Source type	Selects the classifications that will appear on the right side for the selected data source type of the comparison table when the rule is applied.
Classifications	Selects the classifications. If more than one classification is selected, then a logical AND is applied between the classifications, and data rows are filtered accordingly.
Classification categories	Selects the classification categories. If more than one category is selected, then a logical OR is applied when the rule is evaluated and data rows are filtered accordingly.

> **Note**
>
> - Use the add icon ( ) next to the classification category to add a new category to the double counting criteria list.
> - Use the delete icon ( ) next to the classifications category to remove the category from the list.
> - Use the trash icon ( ) next to the classifications remove the whole classification from the list.
> - If multiple classifications are selected, then a logical AND is applied to evaluate the rule.
> - If multiple classification categories are selected, then a logical OR is applied to evaluate the rule.

6.2.14.2 Editing a double count rule

This feature allows modification of an existing double count rule. To edit a double count rule, follow these steps.

1. Click the ellipsis ( ) corresponding to the double count rule you want to edit.
2. Click **Edit**.

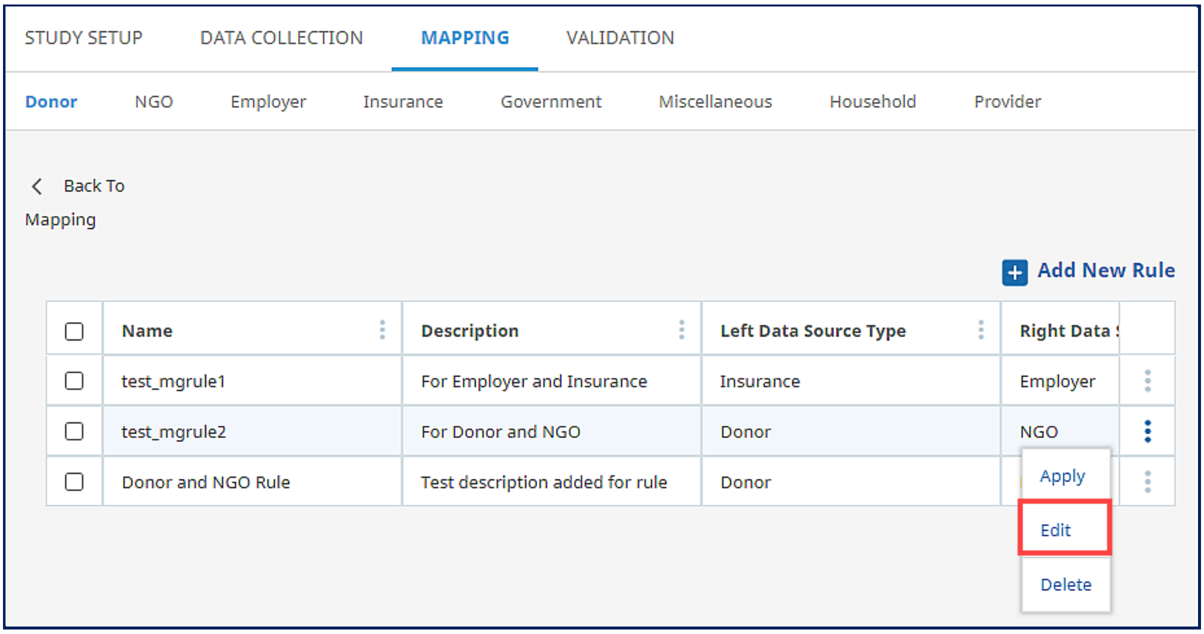


Fig. 6.142. Editing rules for double count

The *Edit* form is displayed.

3. Edit the details in their respective fields and click **SAVE**.

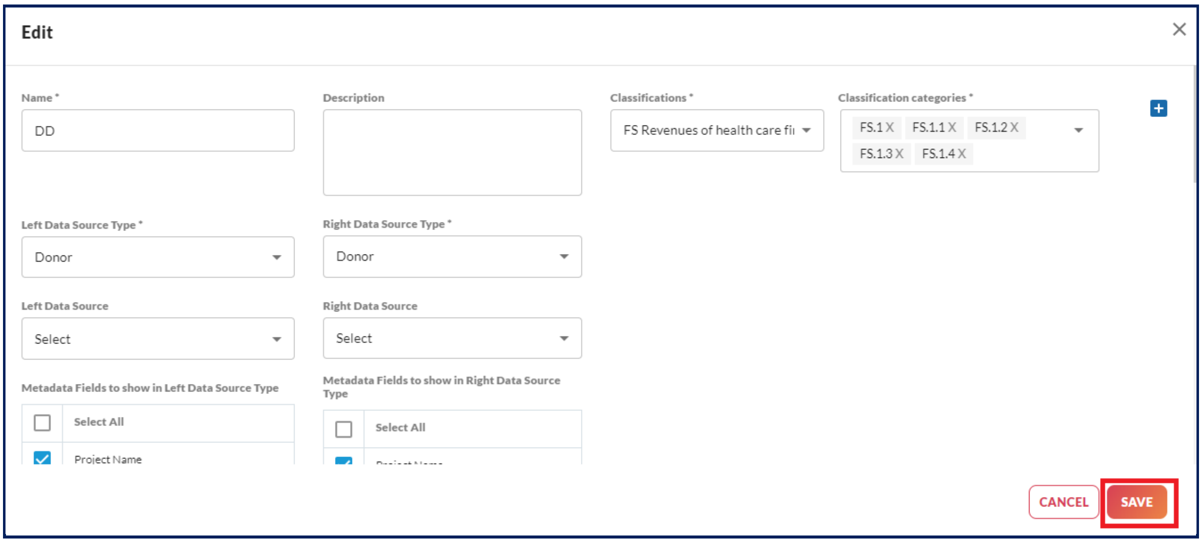


Fig. 6.143. Editing a rule for double count

The double count rule is updated, and a confirmation message is displayed.

6.2.14.3 Deleting a double count rule

This feature allows deletion of a double count rule from a study. The rule is deleted permanently. To delete a double count rule, follow these steps.

1. Click the ellipsis (⋮) corresponding to the double count rule you want to delete.
2. Click **Delete**.

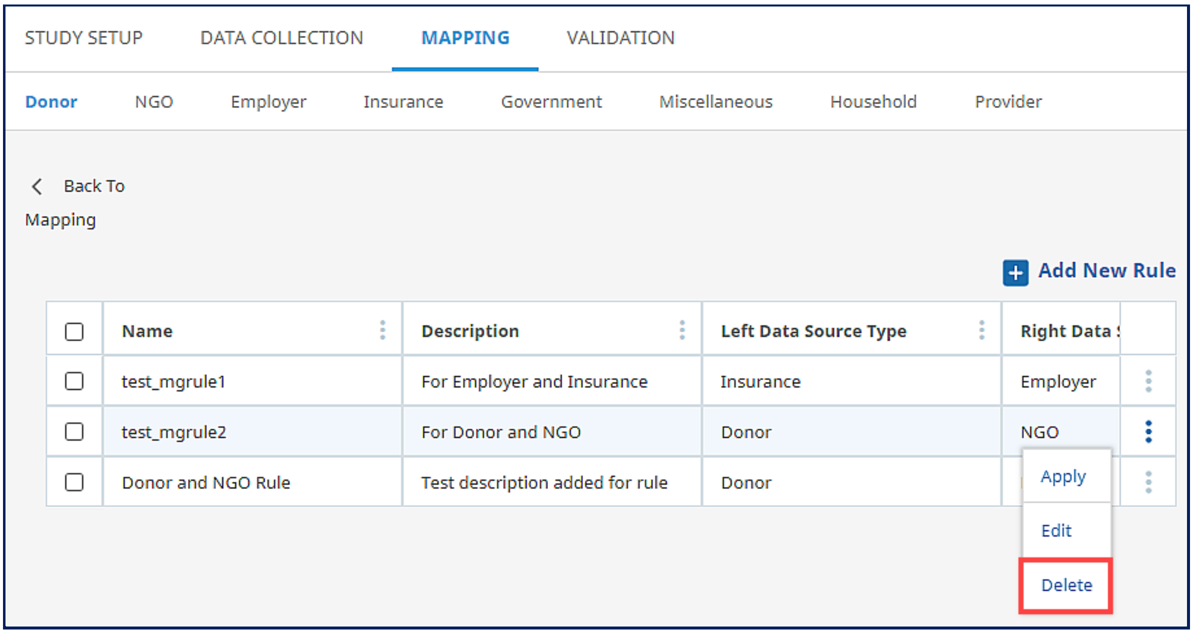


Fig. 6.144. Deleting a double count rule

A message asking you to confirm your action is displayed.

3. To confirm, click **YES**.

The double count rule is deleted, and a confirmation message is displayed.

6.2.14.4 Applying a double count rule

This feature allows application of a double count rule, by applying one that has already been created in a particular study or by using the rules that are already available in the system. To add a new rule for double counting in a study, refer to Adding a new double count rule. You can also apply a double count rule created in the global feature under the **RULES** module in **SETUP** (access from the navigation menu). When a TL applies a double count rule, the check is performed on the data rows after mapping. To view the mapping tree, refer to Performing mapping.

To perform double counting after mapping, follow these steps.

It is assumed that a double count rule has been created.

1. To display the mapping tree, refer to Performing mapping steps 1 to 5.
2. Click **Double Count**.
3. Click the ellipsis (⋮) corresponding to the double count rule you want to apply.
4. Click **Apply**.

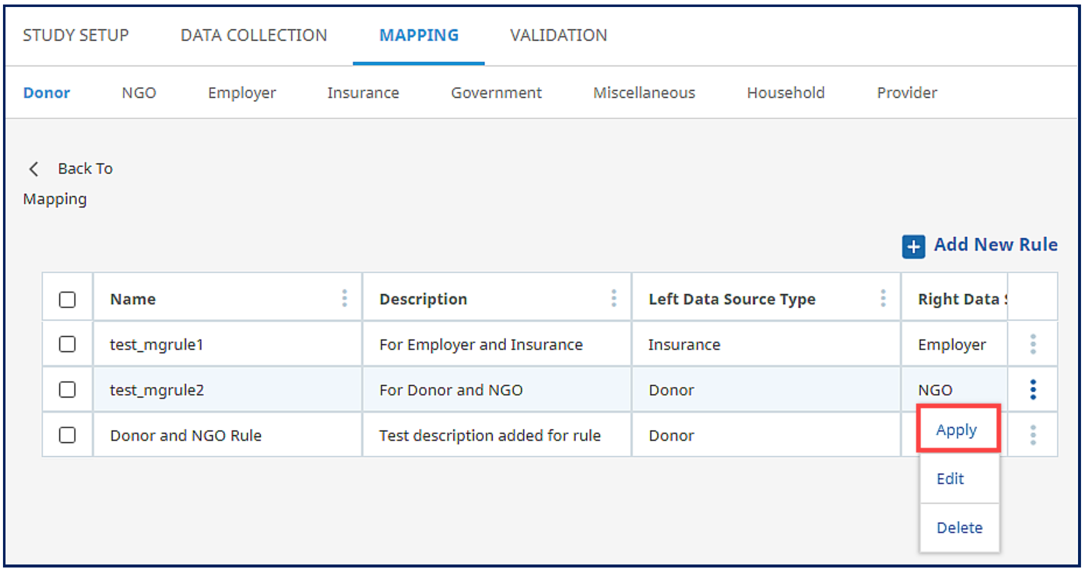


Fig. 6.145. Applying a rule for double count check

The ***Apply Double Counting*** screen is displayed.

5. To exclude an expenditure from a single data row, scroll to the right of the grid.

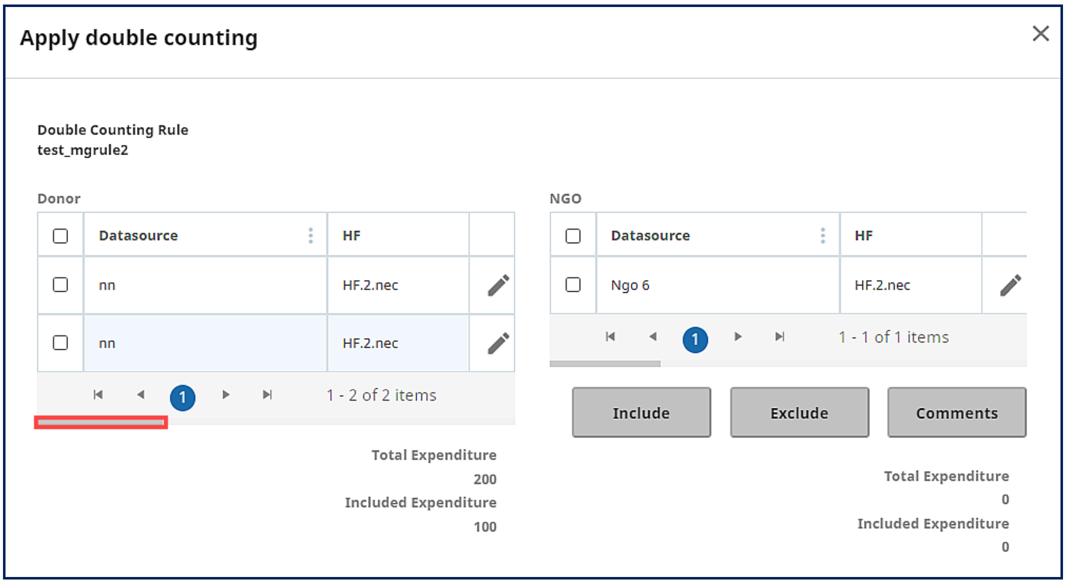


Fig. 6.146. Applying a double count check after mapping

Table 6.19 shows the fields, buttons and icons present on the ***Apply Double Counting*** screen.

Table 6.19. Description of fields, buttons and icons on the *Apply Double Counting* screen

Fields/buttons/icons	Button/icons name	Description
Comments	NA	Displays comments added or edited for a selected data row. The comments allow provision of the reason for excluding the amount due to double counting.
Amount	NA	Displays the amount for a specific data row. • The left grid displays amounts for data rows of the data source type on the left. • The right grid displays amounts for data rows of the data source type on the right.
Total Expenditure	NA	Displays the total health expenditure of data rows selected by the filters of the double counting rule after mapping. • Total expenditure for the data source type on the left is displayed in the left grid. • Total expenditure for the data source type on the right is displayed in the right grid.
Included Expenditure	NA	Displays the expenditure amount after subtracting the excluded amount if any, from the total expenditure. • Included expenditure for the data source type on the left is displayed in the left grid.

Fields/buttons/icons	Button/icons name	Description
		• Included expenditure for the data source type on the right is displayed in the right grid.
	Exclude	Allows discarding the expenditure of the selected data row. The amount is subtracted from the included expenditure. It is a toggle button. • To exclude, click the button. It scrolls to the right and turns green. • To include, click the button. It scrolls to the left and turns grey.
	Edit	Allows adding comments for a selected sub-row.
	Include	Adds the expenditure for the multiple rows selected, and the amount is added to the included expenditure.
	Exclude	Discards the expenditure for the multiple rows selected, and the amount is subtracted from the included expenditure.
	Comments	Adds comments for the multiple data rows selected. It allows you to provide the reason for excluding the amount due to double counting.

NA = not applicable

Note

- Include, exclude and comments buttons are enabled only when more than one data row is selected.
- To include, exclude or comment on multiple data rows, select the check box corresponding to the data rows that should be included, excluded, or commented.

6. Click the toggle button.

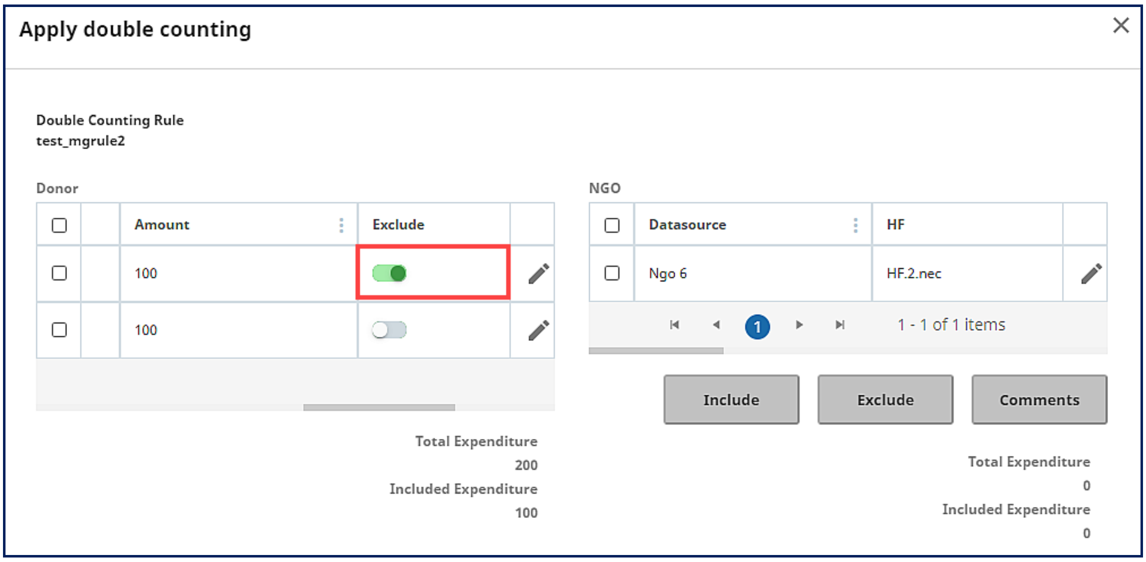


Fig. 6.147. Excluding expenditure

The button turns green, and a confirmation message is displayed, indicating that the amount is excluded.

> **Note**
>
> The toggle button is to the right of both the left data source type grid and right data source type grid. To make the toggle button visible, scroll to the right.

6.2.14.5 Import double counting rules

This feature allows you to import double counting rules from another study. To import rules, follow these steps.

It is assumed that a double count rule has been created in another study of the same country.

1. On the MAPPING module, select a data source type and a data source and click **SHOW DATA**.
2. Click **Double Counting**.
3. Click the **Import double counting rules**.

Fig. 6.148. Choosing to import double counting rules

4. Select the study from which you want to import rules.

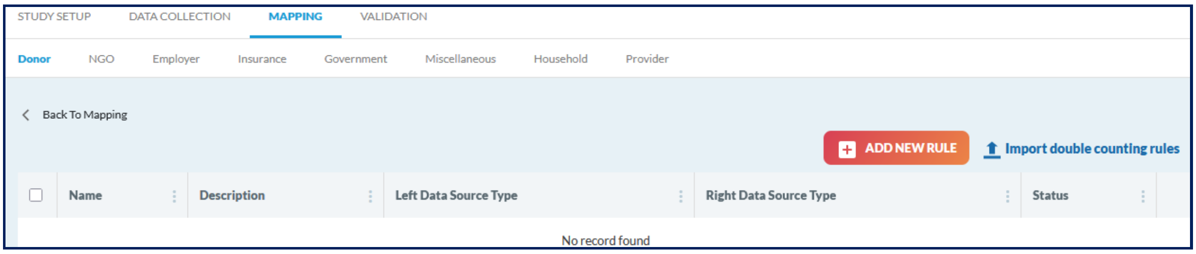


Fig. 6.149. Selecting a study

5. Select the rules that you want to import.

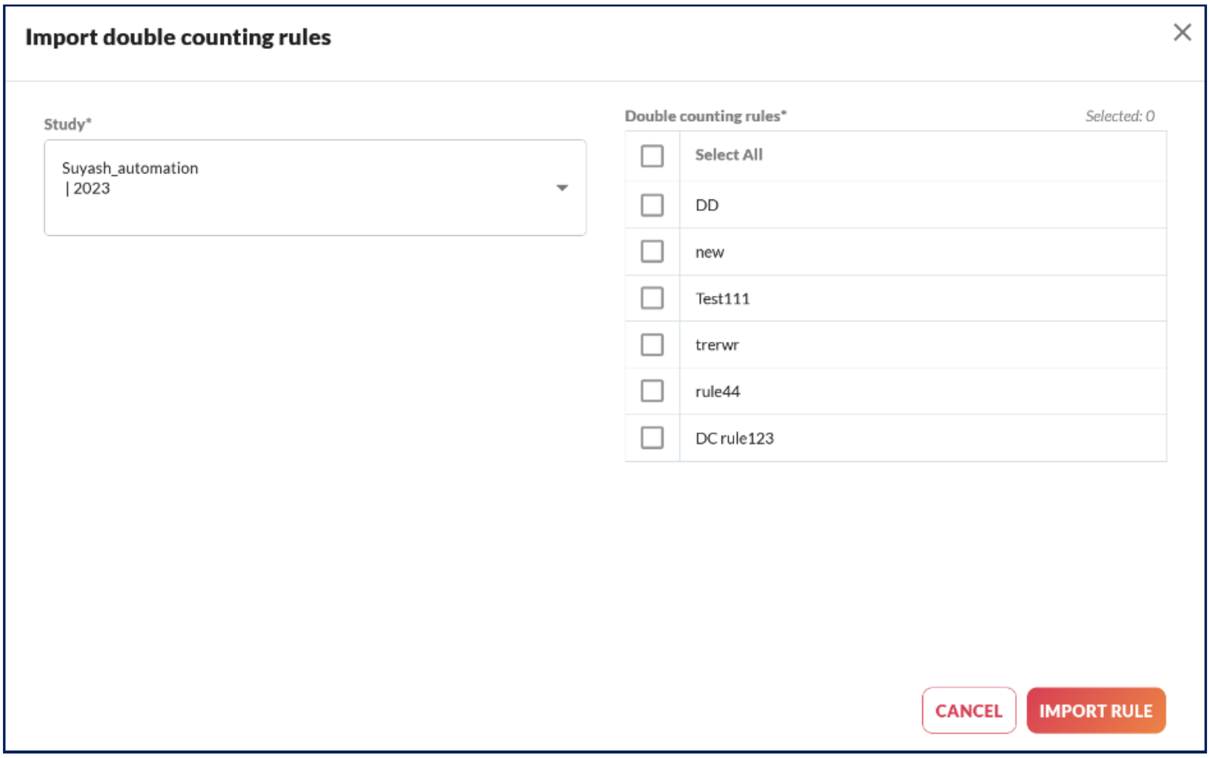


Fig. 6.150. Select the rules

6. Click **IMPORT RULE**.

A success message is shown on successful import of the rules.

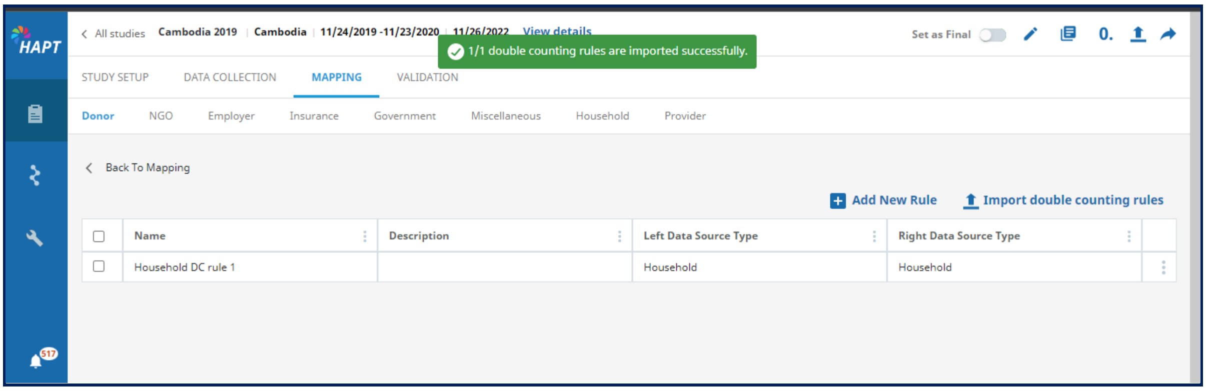


Fig. 6.151. Notification on successful import

Note

If a rule with same name already exists, then the rule is not imported.

6.2.14.6 Quality check during mapping

Quality check rules also are used to recommend probable mappings. The quality check rules validate the flow and mapping of health expenditure data. There are two types of quality check rules: error and warning. You can ignore and silence warnings if they have justifiable reasons, and must provide comments on the decision to ignore the warning. You cannot ignore errors while performing mapping and must correct the mapping data. The quality check rules evaluated in the mapping stage are created in advance to be applied during mapping.

Quality check rules are defined in the tool by default

6.2.14.7 Warnings during mapping

If cross-mapping a classification with another classification causes a warning, a warning message is displayed. You can silence a warning message arising from a quality check during mapping for a data row, all data rows of the same data source, or multiple data sources of the same data source type, or multiple data source types, or entire study, even if the mapping is declared as not suitable by the programme owner.

For example, [FS.1.4] x [HF.1] > 0 is a quality check rule that displays a warning message. It means if you map FS.1.4 to HF.1 or its subcategories, a warning message is displayed. Thus, the quality check rule helps avoid mistakes in mapping.

To silence warning messages, follow these steps.

1. On the **MAPPING** module, select data source type and data source.
2. Map a classification.

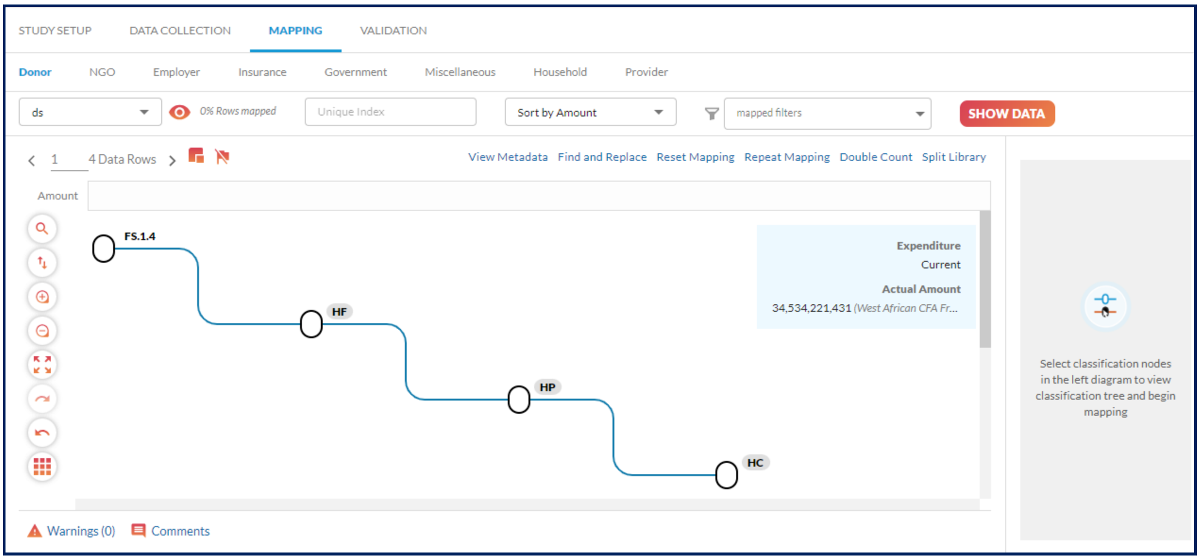


Fig. 6.152. Mapped classification

3. Map another classification.

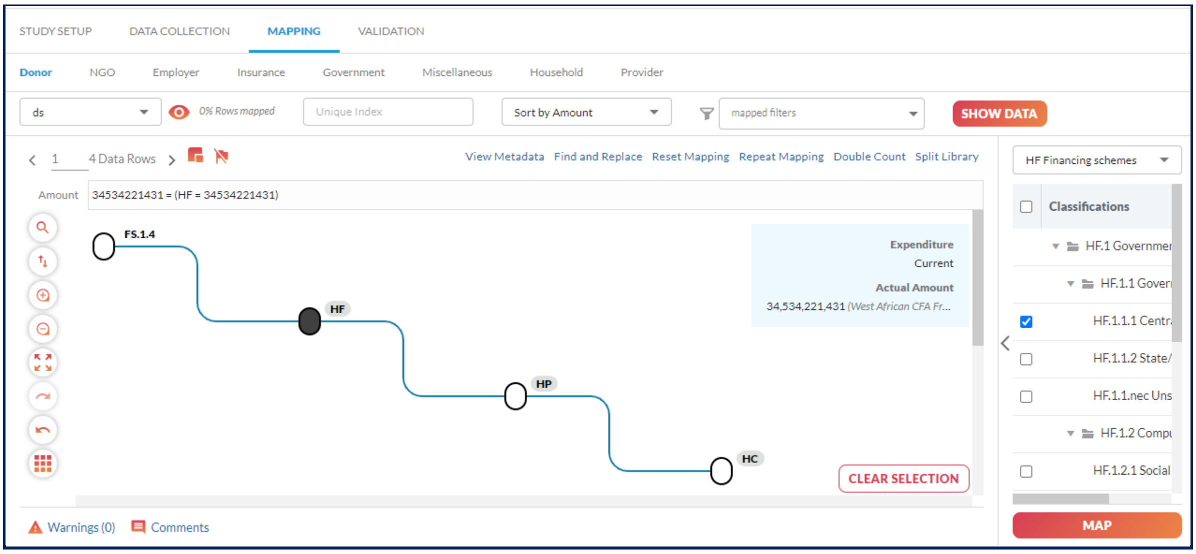


Fig. 6.153. Mapping another classification

4. If the mapping creates an unsuitable mapping, a notification is shown.

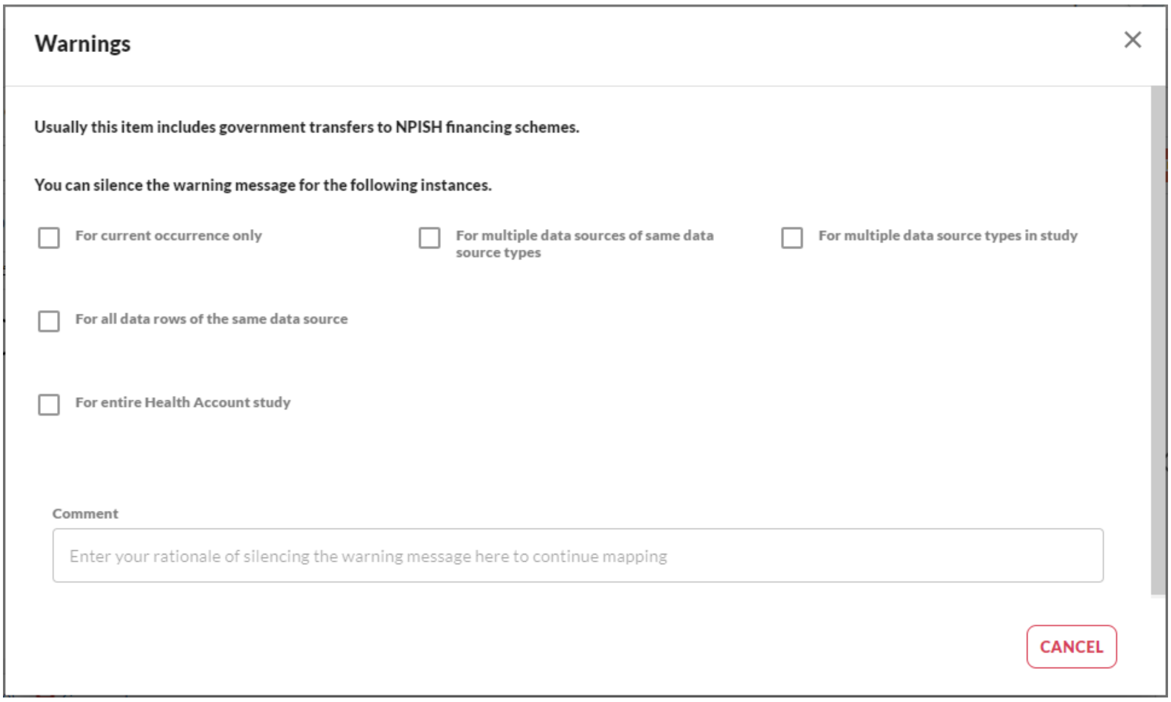


Fig. 6.154. Warning pop-up notification

5. You can select any options from the check boxes on the pop-up message. Select any option displayed on the screen, then the **DEACTIVATE WARNING** button appears.

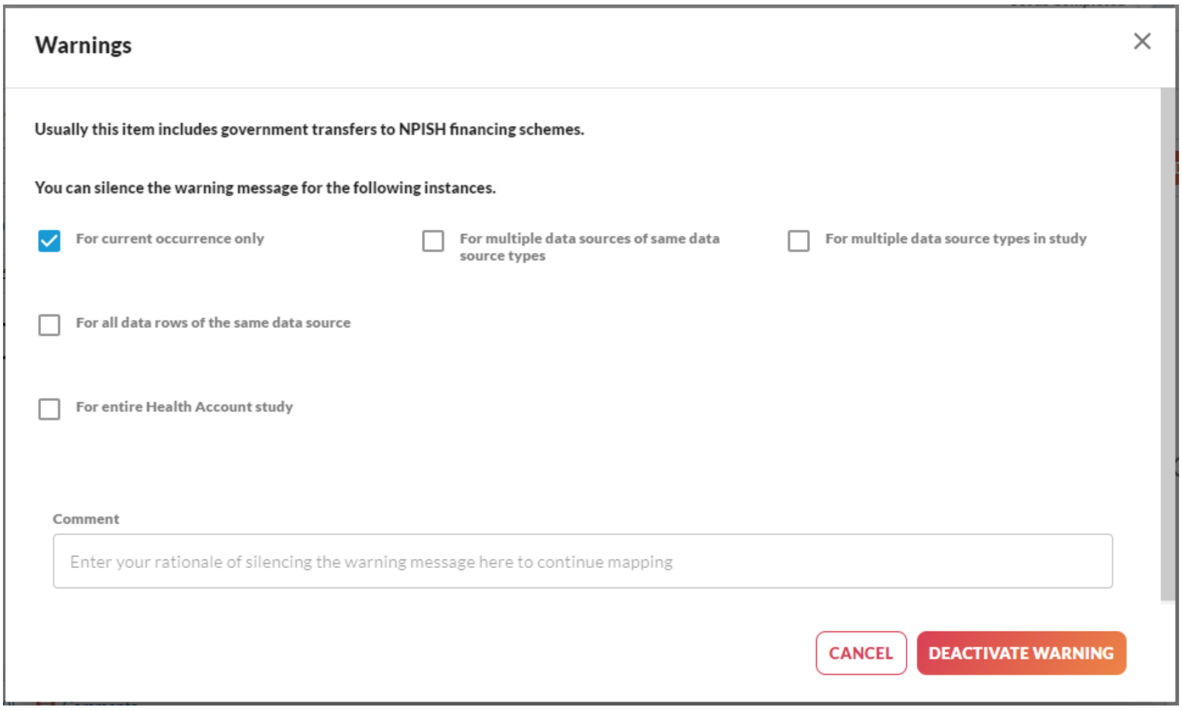


Fig. 6.155. Silencing warnings for a data row

You can silence warning messages in various circumstance.

- For current occurrence only – the warning message is silenced only for the current data row.
- For all data rows of the same data source – the warning message is silenced for all data rows of the same data source.
- For multiple data sources of the same data source type – the warning message is silenced for all selected data sources in the data source type.
- For multiple data source types – the warning message is silenced for all selected data source types.
- For the entire HA study – the warning message is silenced for the entire study.

You can write comments in the comments section.

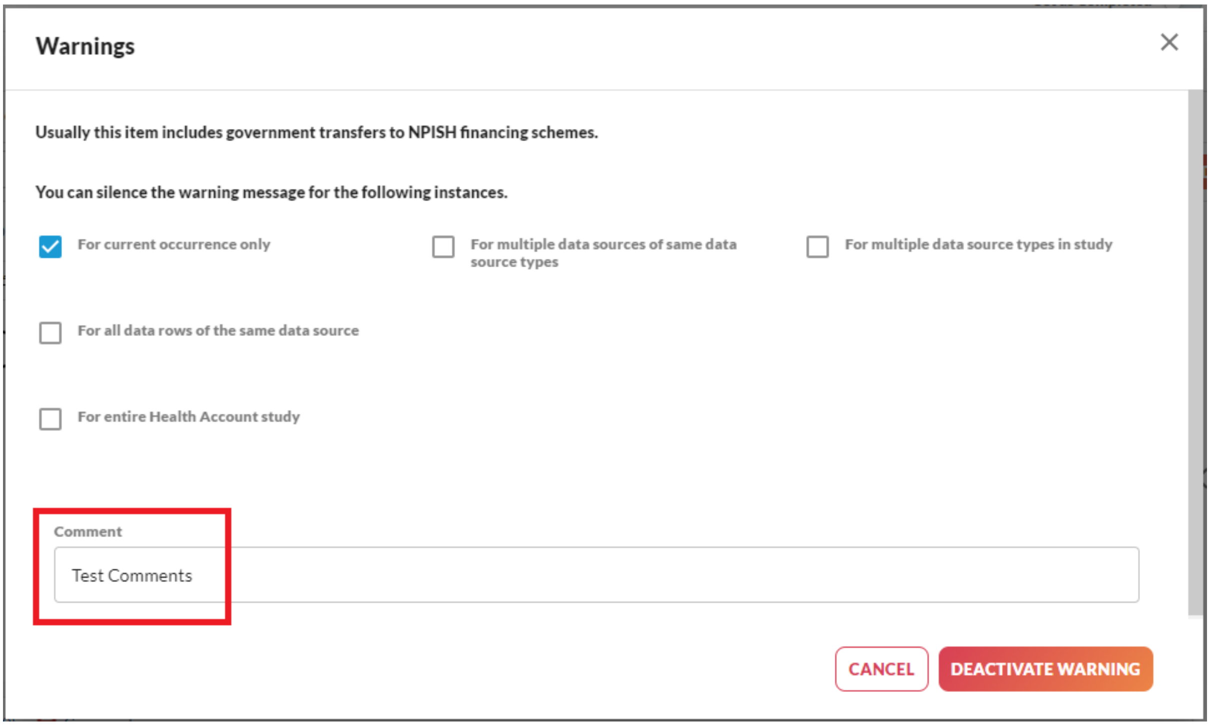


Fig. 6.156. Writing warning comments

6. Click **DEACTIVATE WARNING**.

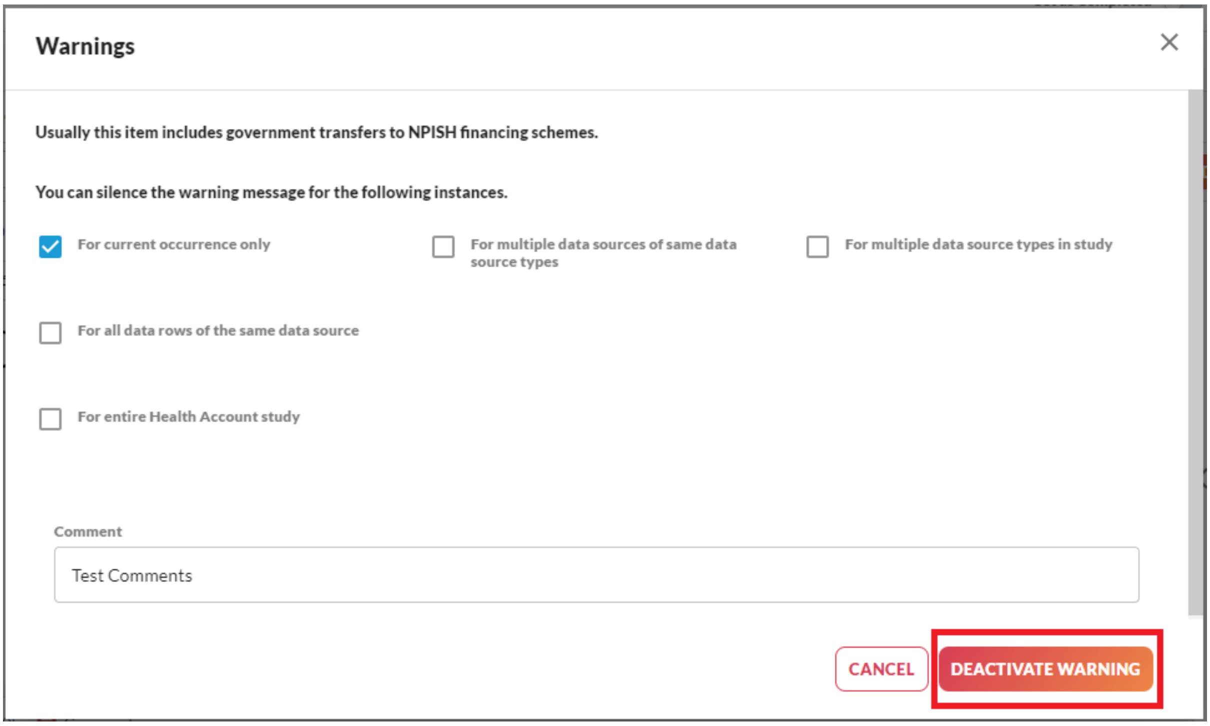


Fig. 6.157. Deactivating a warning message

When you click **DEACTIVATE WARNING**, the classification is mapped in the data row, a success message is displayed, and the warning counter is updated.

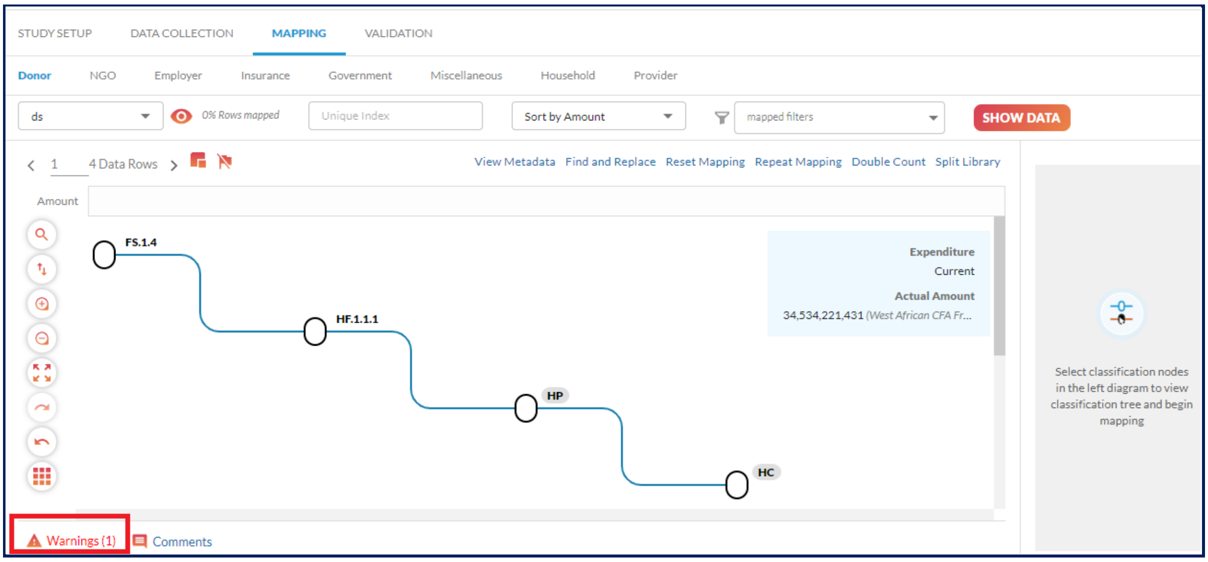


Fig. 6.158. Mapped classification and warning counter updated

You can click the "Warnings" option to view all quality check rules applied and any comments added when silencing the warnings.

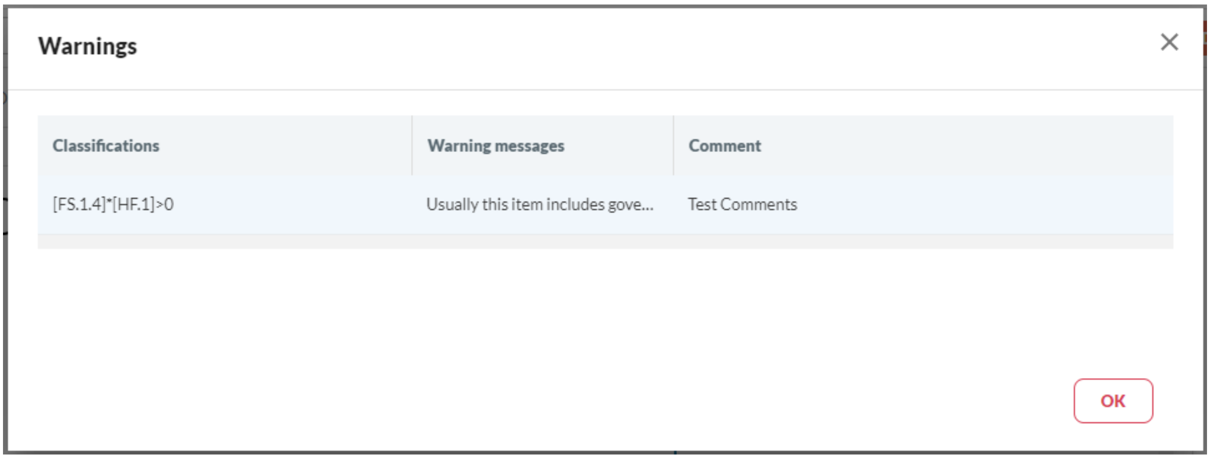


Fig. 6.159. Warning messages applied to a data row

Note

- You can silence warnings from quality check rules, but not errors.
- You can select multiple data source or data source types.

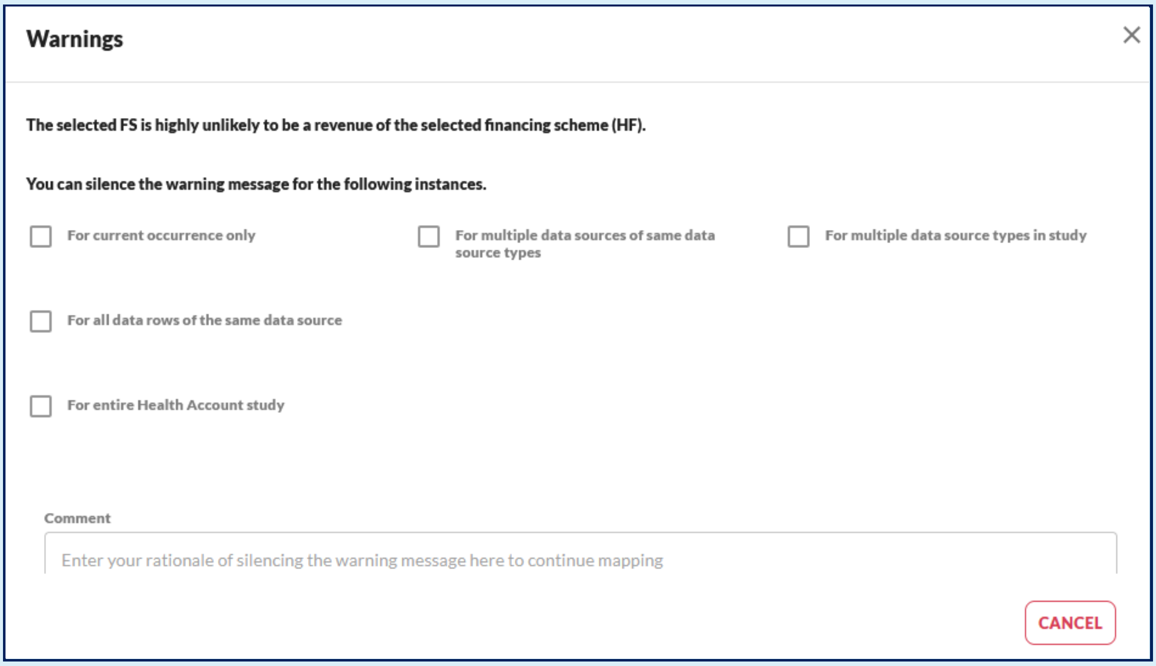


Fig. 6.160. Selecting from options when silencing warnings

- A TM sees only the data source types that are assigned to them.
- The quality check is performed for the classification, its categories and subcategories as well. For example, for the [FS.1.4] x [HF.1] > 0 rule, the quality check is evaluated for all HF.1 subcategories.

- If repeat mapping causes a warning, the repeat mapping is still performed and the warning counter is updated.
- When find and replace causes a warning, the replacement is still performed and the warning counter is updated.
- If adding split rules to a split pattern generates an error or warning then a message will be displayed.
- To un-silence warnings, refer to Mapping warnings.
- To see all the mapping warnings in a single table, refer to Quality checks during validation.
- When you click **CANCEL** when silencing warnings, the mapping will still be performed. It cancels only the silencing of the warning, not the mapping itself.
- If you silence a warning and then unmap the classification for that data row, the silencing comment and the silencing action are not deleted. For example, if you select the scope "For all data rows of the same data source", the warning will remain silenced as long as the data source exists. Additionally, the comment will be stored and displayed if you decide to remap the data, resulting the same warning again.

6.2.14.8 Errors during mapping

If cross-mapping a classification with another classification causes an error, an error message is displayed. You cannot silence the error message that was generated by a quality check during mapping. These rules indicate disallowed mappings and you cannot map such classifications and categories.

For example, [FS.1.2] x [HF.3] > 0 is a quality check rule that displays an error message. If you map FS.1.2 to HF.3 or its subcategories, an error message is displayed. Thus, the quality check rule helps you avoid mapping mistakes.

To view errors during mapping, follow these steps.

1. On the **MAPPING** module, open a data row to map.
2. Map a classification in a data row.
3. Map another classification in a data row.
4. An error message is shown.

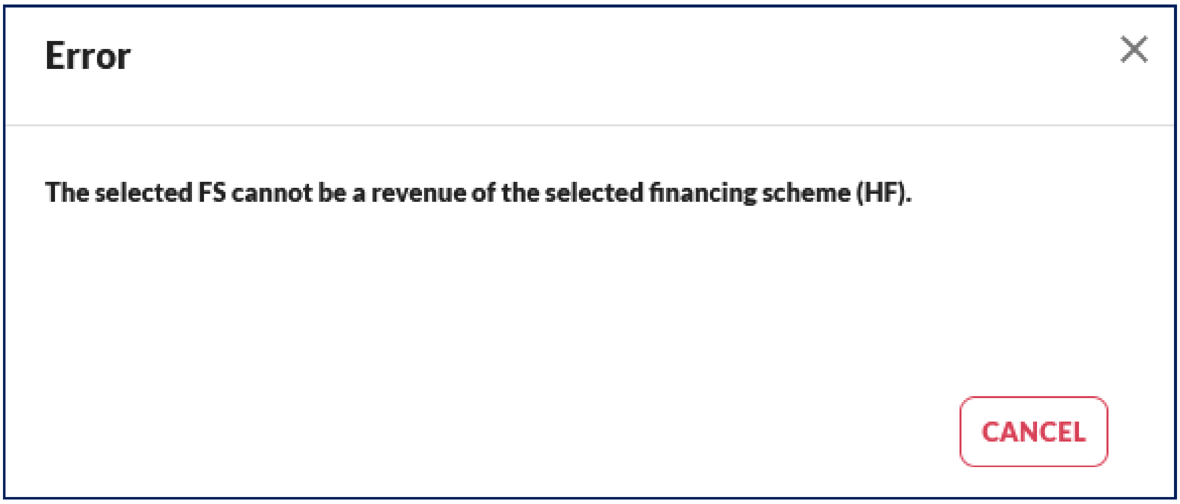


Fig. 6.161. Quality check error

5. Click **CANCEL**.

You cannot map a classification that causes an error.

Note

- You cannot map disallowed mappings.
- The quality check rule is checked for the classification, its categories and subcategories as well. For the [FS.1.2] x [HF.3] > 0 rule, the quality check rule is also evaluated when any subcategories of HF.3 are selected.
- When repeat mapping is performed, if it causes disallowed mappings in some rows, then the repeat mapping is not performed on those data rows.
- When replace or replace all is performed and it causes disallowed mappings in some rows, then replace is not performed on those data rows.
- When adding split rules to a split pattern, if there exist classification categories that may generate errors or warnings at mapping, those errors or warnings are shown.

7. VALIDATION module

The **VALIDATION** module allows you to visualize the charts and tables for an entire study, to help determine the accuracy of the data. The **VALIDATION** module includes three submodules: **Graphs**, **Tables** and **Reports**. In this module the country HA team can see and analyse how resources flow through the health sector, from revenues to schemes, from agents to providers, and so on. If a flow looks incorrect, the team can easily return to the mapping stage to re-code data. Finally, the production of HA tables, which is usually quite time-consuming, is automatic in this module. All tables produced can be exported from the tool. Some standard tables are predefined in the tool.

7.1 Graphs

A graph in the **VALIDATION** module shows the mapping for all data sources under different data source types in a study. You can navigate through the graph to view and track health financing flows, mapping patterns under different expenditure types (current, capital and related). You can also select a data source and data type to generate the graph by applying various filters.

Note

- The data rows that are completely mapped (all classifications of a data row are mapped) are considered for generating a graph.
- The data rows that are **excluded** are not shown in the graphs.
- All users (TL, TM and, CU) have access to this feature.

7.1.1 Generating graphs

This feature generates graphs to see or filter the mapping for the whole study. To generate graphs, follow these steps.

1. On the **VALIDATION** module, click the **Graphs** submodule

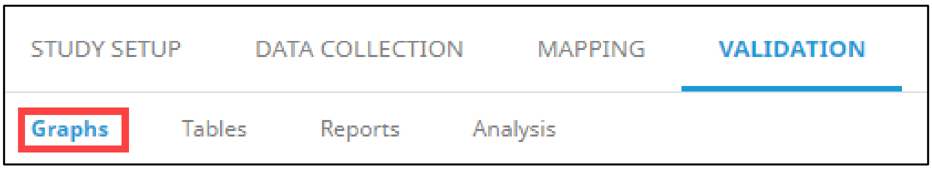


Fig. 7.1. Selecting the Graphs submodule

The **Graphs** submodule is displayed.

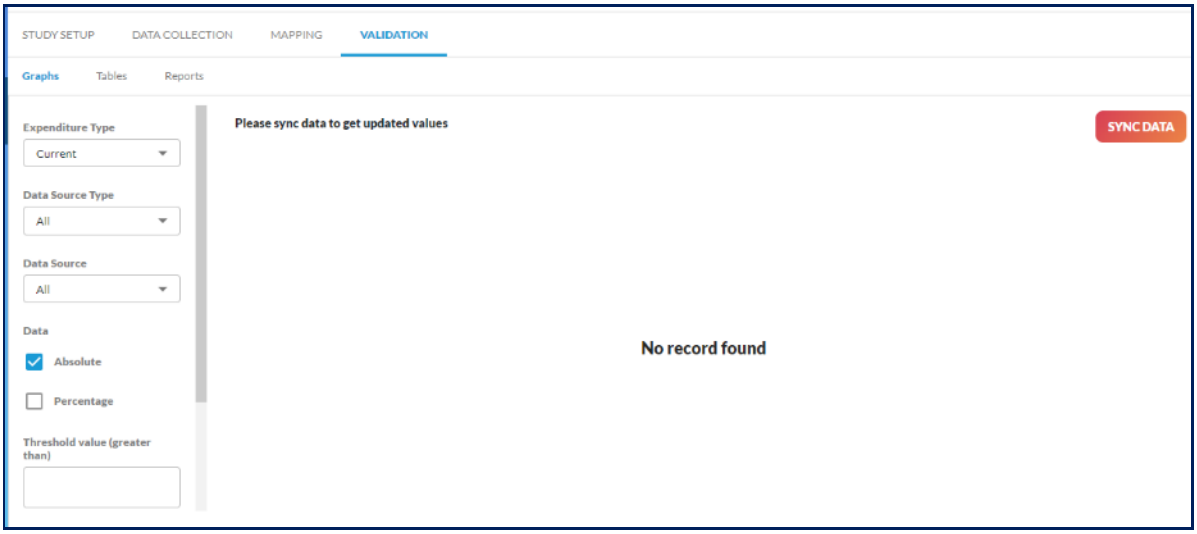


Fig. 7.2. Generating a graph

The ***Graph*** screen is flexible, and allows the HA team to display data in various ways (Table 7.1).

Table 7.1. Description of fields and buttons in the Graphs submodule

Field/button name	Description
Expenditure Type	You can select the type of expenditures from the drop-down list as current, capital, or related.
Data Source Type	You can select the data source types that provide information about the selected expenditure type.
Data Source	You can select contributors of funding from the drop-down list.
Data (Absolute)	You can select the graph to display data in absolute values.
Data (Percentage)	You can select the graph to display data values as percentages.
Threshold value (greater than)	You can select the expenditure limit for the graph; e.g. if you set the threshold value as US$ 500, then the graph will show all the mappings and amounts flowing through classifications having more value than this.
Scale	You can select the scale for the expenditure amount to be displayed.
Currency	You can select the currency from the list of currencies of the study.

Note

- For all filters, the options in the drop-down list are study-specific.
- You can select absolute data values and percentage data values at the same time.

You must click **SYNC DATA** to load the graph onto the screen. When the sync operation starts, a notification message is shown. The time for the sync of data depends on the size of the study. Once sync has completed, you will be asked for confirmation to refresh the page. When the page is refreshed, the graph is displayed.

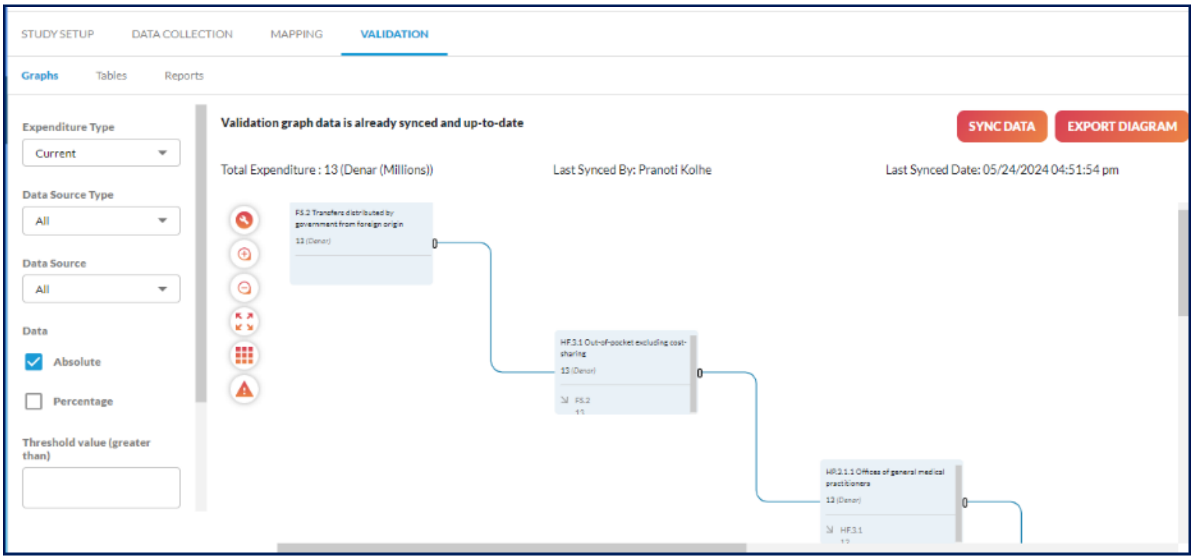
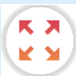


Fig. 7.3. Viewing a graph

Table 7.2 shows the various icons displayed in the Graphs submodule.

Table 7.2. Description of icons in the Graphs submodule

Icon	Description
	Configures various settings related to classifications.
	Zooms in on the graph.
	Zooms out from the graph.
	Shows the graph in full screen.
	Shows the data in grid view.
	Shows warnings and errors after mapping, if any.

More details are shown in a notification message for validation of graph sync.

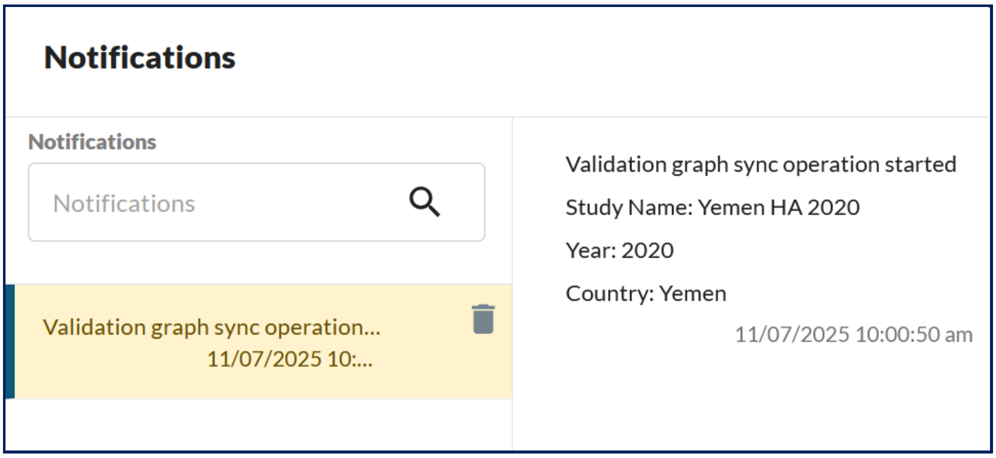


Fig. 7.4. Notification that data sync for graphing has started

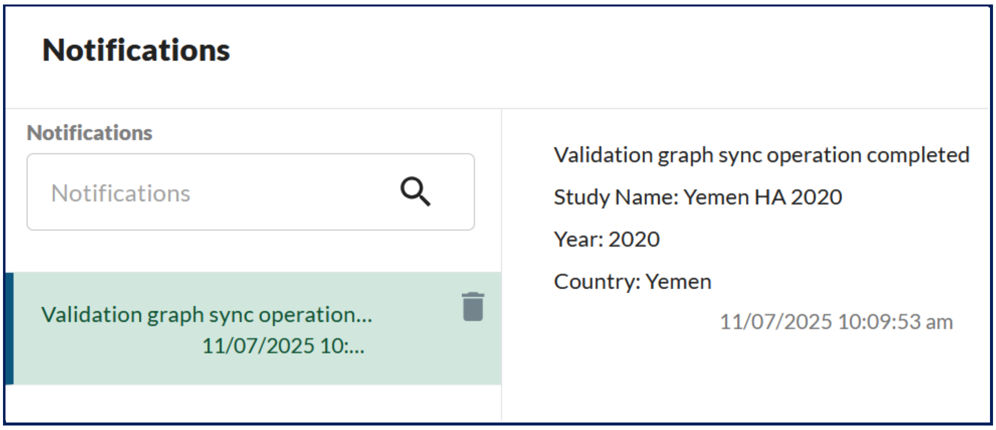


Fig. 7.5. Notification that data sync for graphing has completed

The start and completion notifications contain the details of the sync operation. Additional details such as study name, country and year are shown.

7.1.2 Quality checks during validation

Quality checks (QC) of mapping consider all mapped data and can be applied at the data validation stage. Warnings generated during the mapping stage are also displayed here. This feature helps increase the study data quality. To view such QCs, follow these steps.

1. On the VALIDATION module, choose the Graphs submodule
2. If the data are not synced and updated, click **SYNC**.
3. After the graph is synced, click the warnings and errors icon ( ).

Fig. 7.6. The *Warning(s) and Error(s)* window

The list of warnings and errors applied during mapping and reporting is shown.

Table 7.3. Description of fields and buttons on the *Warning(s) and Error(s)* screen

Field/button name	Description
Data Source Type	Shows the data source types of mapping warnings. For validation errors and warnings it is blank. (Values will be displayed when mapping warnings are displayed on the ***Validation warnings/errors*** screen.)
Data Source	Shows the data sources of mapping warnings. For validation errors and warnings it is blank. (Values will be displayed when mapping warnings are displayed on the ***Validation warnings/errors*** screen.)
Data Row	Displays the number of data rows for which mapping warnings exist. The “Data row” column is blank for validation errors and warnings.
Classifications	Shows the rules evaluated for classifications in the study.
Message(s)	Shows the error and warning messages of the rules.
Comment	Displays the comments entered for each reported warning or error, as well as the comments entered when un-silencing mapping warnings.
Applied At	Shows in which step (or when) the rule is applied: “M” (mapping) for rules checked during mapping or “R” (reporting) for rules checked after the mapping is done.
Type	It shows the rule type – if it is a warning or error.

If you do not want to adjust the mapping, you can leave comments explaining why these atypical entries exist in the country data. These comments will appear in ***Warning(s) and Error(s)*** window (Fig. 7.6.). To edit a comment, follow these steps:

1. Click the pencil icon ( ) next to the reporting warning or error.
2. Enter a message or comment and click **ADD**.

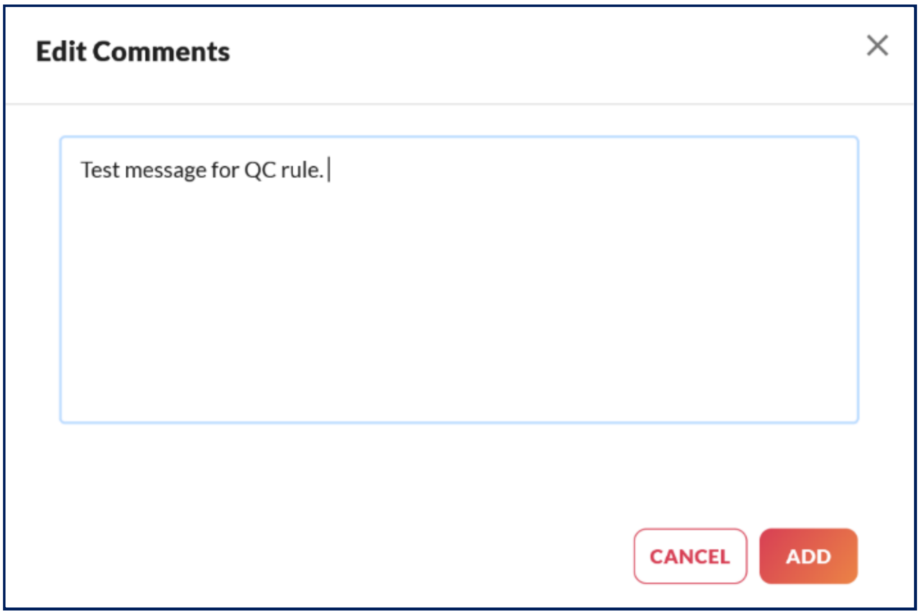


Fig. 7.7. Adding comments

Once the message is added, a success notification is shown in a green pup-up at the top of the page.

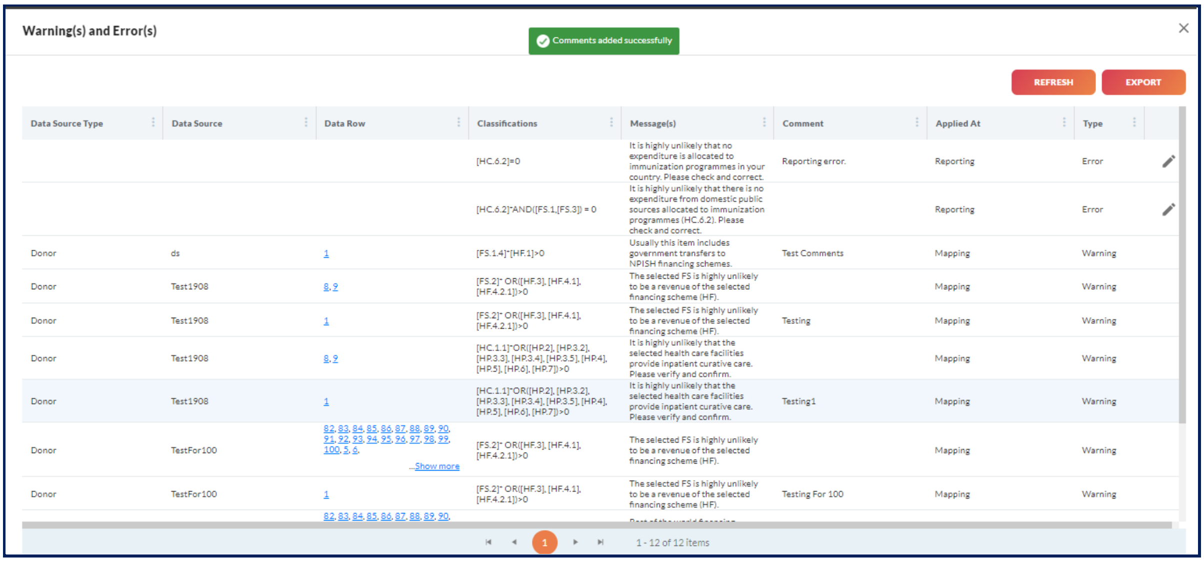


Fig. 7.8. Edited comment in the *Warning(s) and Error(s)* window

Export warnings and errors messages by clicking **EXPORT**.

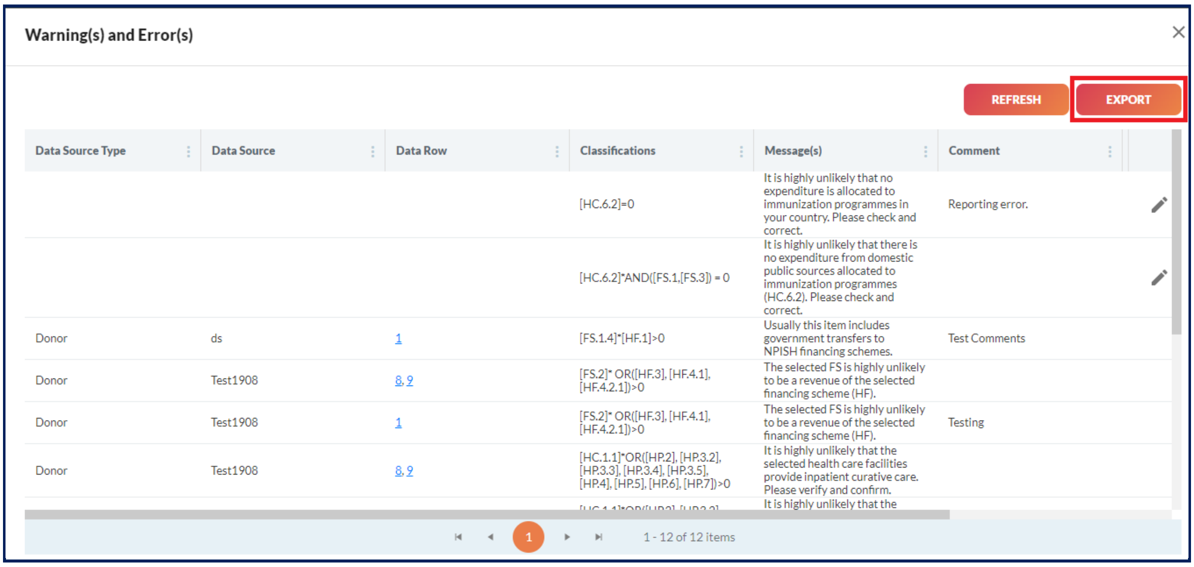


Fig. 7.9. Selecting EXPORT

After you click on **EXPORT**, the list of warnings and errors is exported and downloaded to your machine.

Note

- A expenditure data row will be displayed as part of the total amount in the **VALIDATION** module only after all classifications are mapped for this row.
- Once you correct the mapping, the particular warning or error will disappear from the list.

Data on the ***Warning(s) and Error(s)*** screen can be refreshed by clicking **REFRESH**.

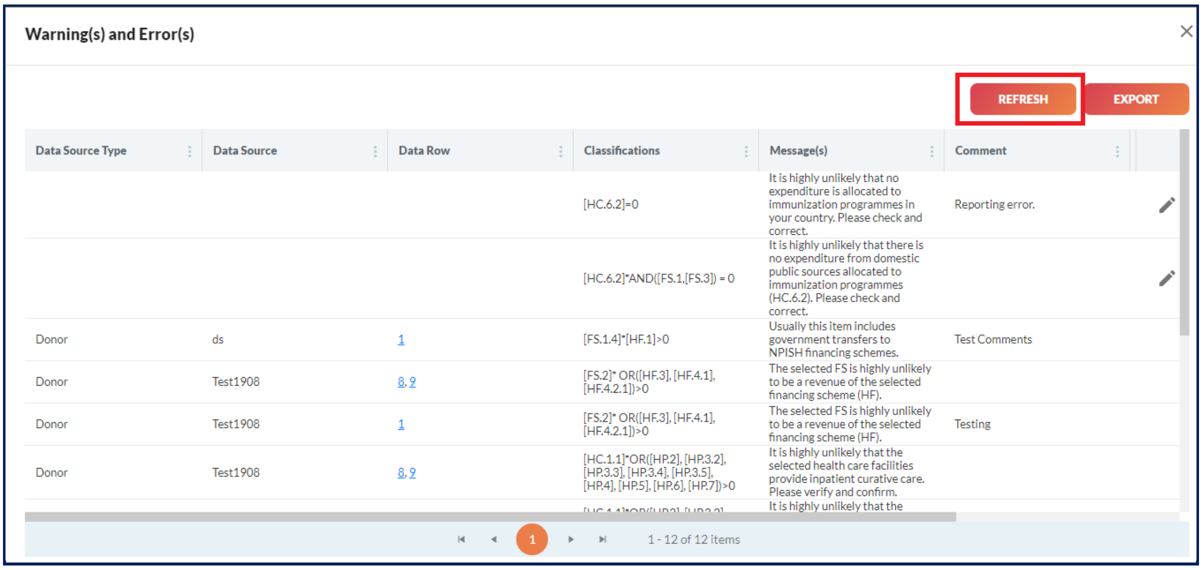


Fig. 7.10. Selecting REFRESH

If you make any changes on the **MAPPING** module screen and then click **REFRESH**, the list of warnings and errors is updated.

The ***Warning(s) and Error(s)*** screen allows you to navigate to the mapping tree of any data row that contains a mapping warning.

The mapping tree for a data row will be opened in a new tab when you click on the data row number on the ***Warning(s) and Error(s)*** screen.

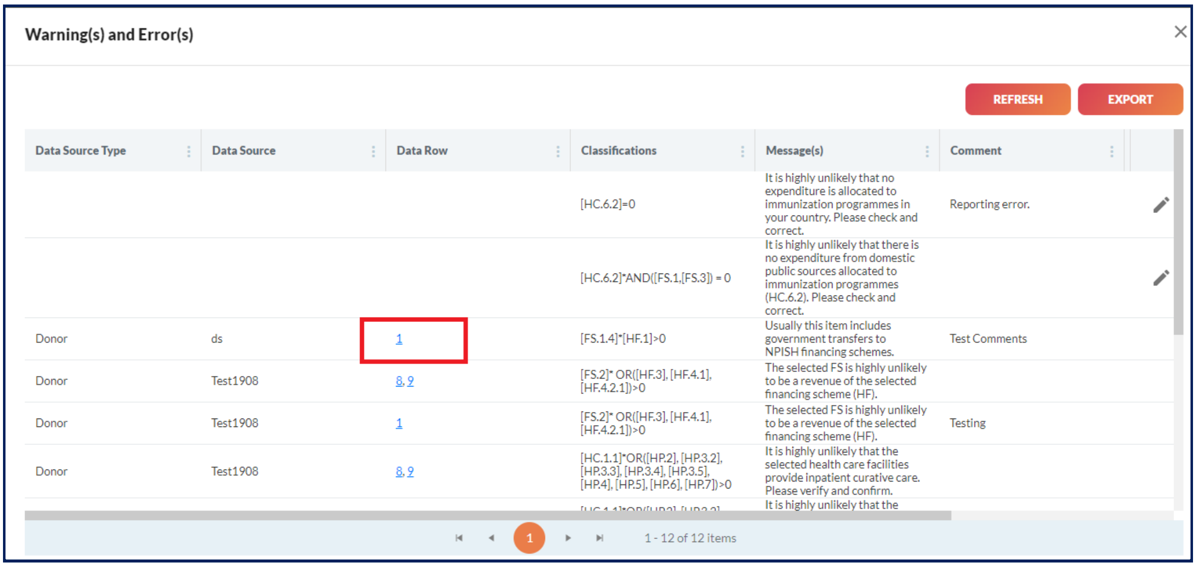


Fig. 7.11. Selecting a data row

The mapping tree of the selected data row opens in a new tab.

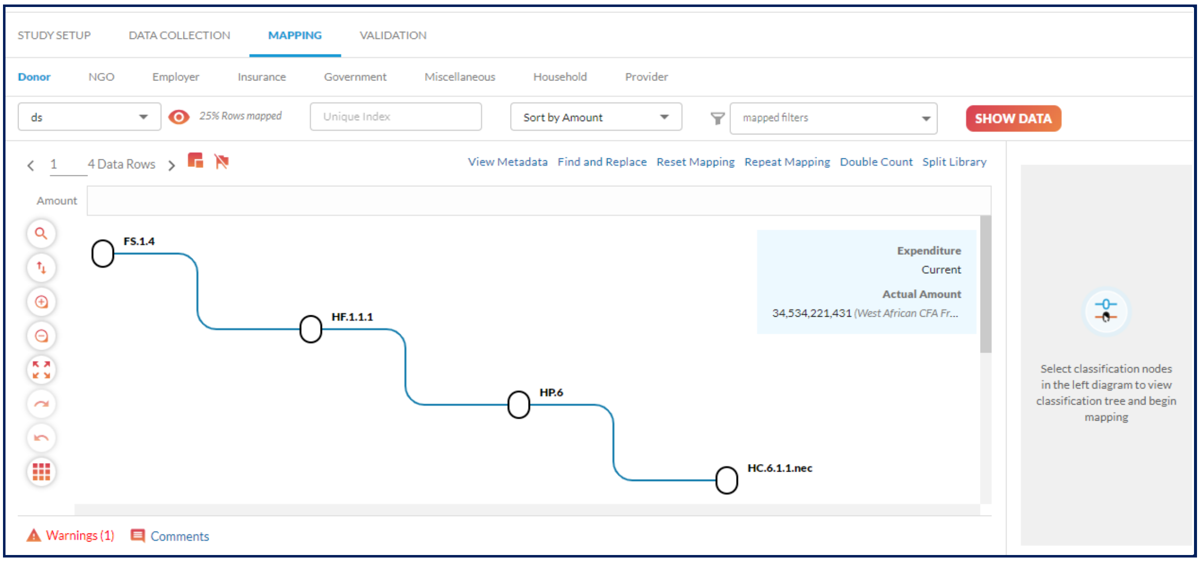


Fig. 7.12. The mapping tree of the selected data row

Note

- The numbers of rows are displayed, separated by a comma, if the same mapping warning appears on multiple data rows with the same comment. Only a few data rows are presented. All data rows are displayed after selecting the “Read more” option. On hover, all of the data rows can be viewed.
- You cannot edit mapping warning comment from ***Warning(s) and Error(s)*** screen. To edit comments of silenced mapping warnings please refer to Editing or adding mapping warning comments.

7.1.3 Modification of classifications order

This function allows changing the classifications order in the mapping tree, or excluding specific classifications from the graph. To manage the settings on the **Graphs** submodule, follow these steps.

1. Generate the graph. Refer to Generating graphs.

The graph is generated.

2. On the **Graphs** submodule, click the settings icon ( ).
3. The ***Configuration*** screen is displayed.

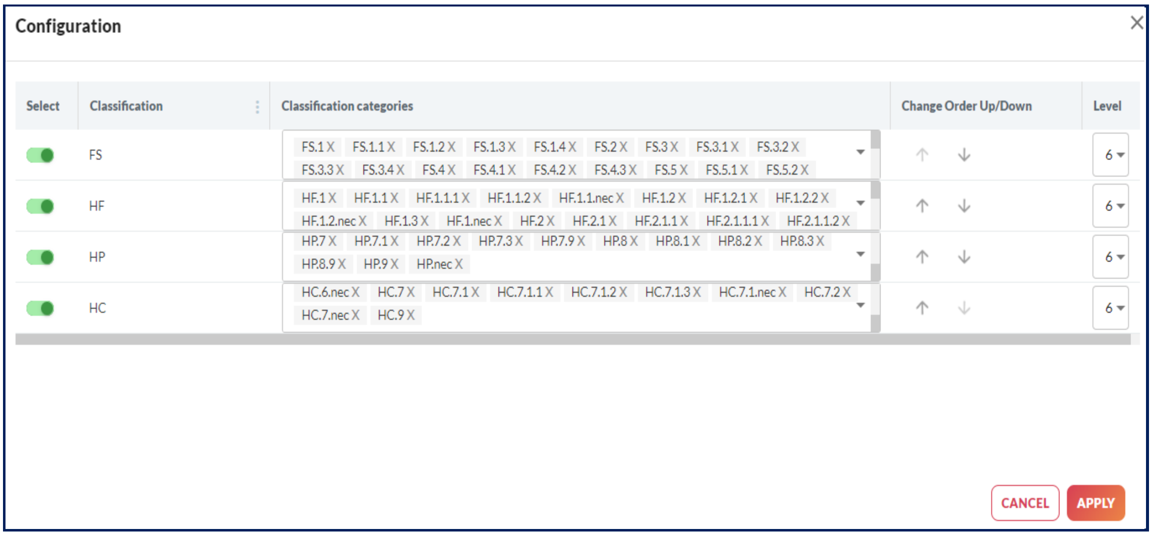


Fig. 7.13. Showing the *Configuration* screen after opening the settings menu

4. Select the toggle button ( ) corresponding to the classification to realign its position in the mapping tree.

Note

- The toggle button turns green ( ) when you select the classification to reorder.

- The toggle button turns grey ( ) when you deselect the classification from reordering.
- The classifications that are deselected are excluded from the mapping tree.

5. Select the level of the classification from the drop-down list to move it up or down.
6. Click **REORDER**.

The graph is reordered, and a confirmation message is displayed.

7.1.4 Filtering reporting graph by classification category

Filters can be applied to classification categories. The validation graph is updated and displayed by after filtering.

Filters can be applied to multiple classifications and classification categories.

If the parent category is selected, subcategories of the classification are also selected to filter the graph.

To filter the graph by classification category, follow these steps.

1. Generate the graph. Refer to Generating graphs.

The graph is generated.

2. On the **Graphs** submodule, click the settings icon ( ).
3. The ***Configuration*** screen is displayed.

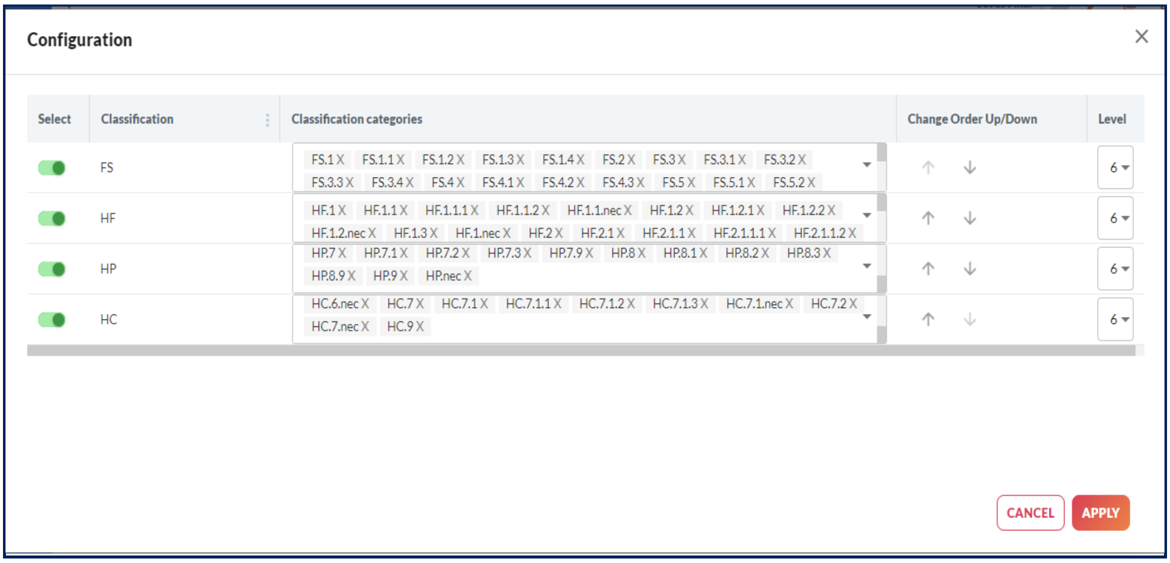


Fig. 7.14. The *Configuration* screen for filtering

4. Select the classification(s) and classification category or categories from the drop-down. By default, all the classification(s) and classification category or categories are selected.

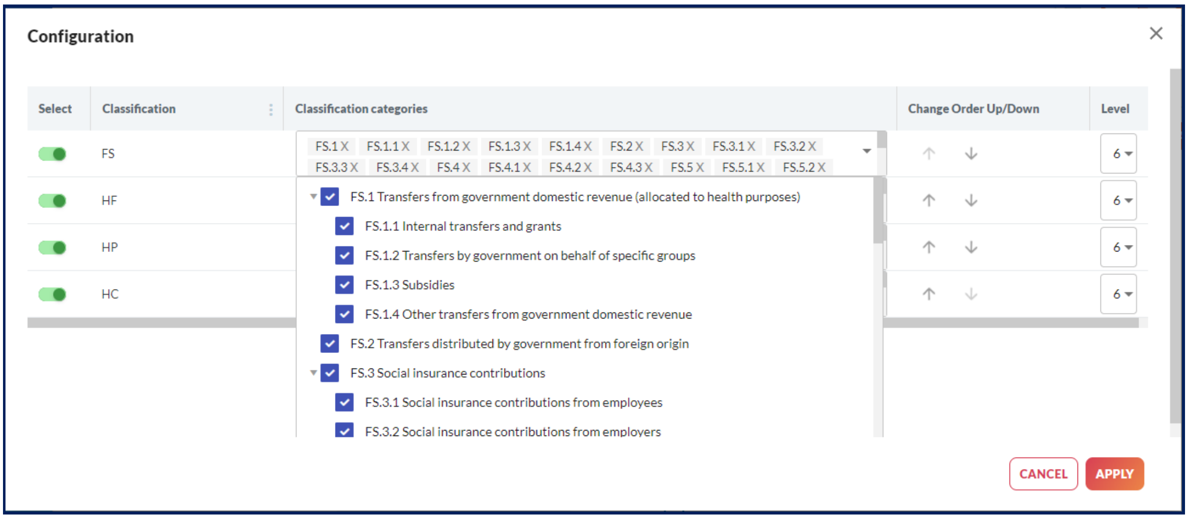


Fig. 7.15. Choosing the classifications to use for filtering the graph

5. Click **APPLY**.

The graph is updated to show only the selected classifications and categories and the corresponding flows.

7.1.5 Exporting graphs

This feature allows you to save the graph on your system. The exported graph is saved in a **.**png file. To export a graph, follow these steps.

1. Generate the graph. Refer to Generating graphs.

The graph is generated.

2. Click **EXPORT DIAGRAM**.

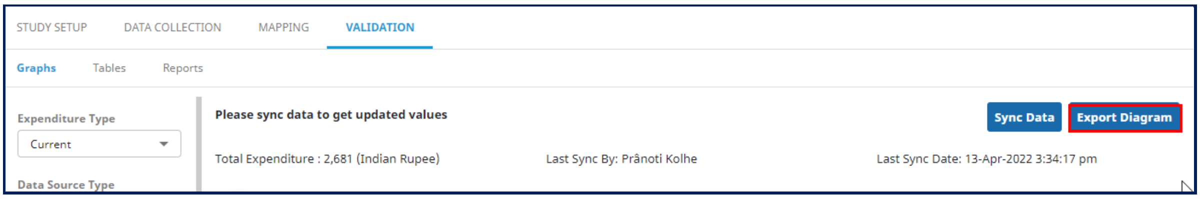


Fig. 7.16. Exporting a graph

The graph is downloaded as a **.**png file to the default download location of your system.

7.1.6 Data grid view

The data grid view helps you view the graphical data in a tabular structure. All filters applied to the corresponding graph are applied in the data grid view. To view data in the data grid view, follow these steps.

1. Click the grid icon ( ).
2. The data are shown in data rows.


Data Grid View

Data Rows	Amount	Data Source	Data Source Type	FS	FA	HF	HP	HC
401	3,396.44	Donors OECD	Donor	FS.7.3	FA.6.1	HF.4.nec	HP.1.nec	HC.5.nec
402	71,487.04	Donors OECD	Donor	FS.7.3	FA.6.1	HF.4.nec	HP.1.nec	HC.6.2
403	808.68	Donors OECD	Donor	FS.7.3	FA.6.1	HF.4.nec	HP.1.nec	HC.6.4
404	2,102.56	Donors OECD	Donor	FS.7.3	FA.6.1	HF.4.nec	HP.1.nec	HC.6.6
405	5,175.53	Donors OECD	Donor	FS.7.3	FA.6.1	HF.4.nec	HP.1.nec	HC.6.nec
406	1,491,362	Donors OECD	Donor	FS.7.3	FA.6.1	HF.4.nec	HP.1.nec	HC.9

1 2 3 4 5 6 7 8

401 - 500 of 773 items

Fig. 7.17. Graphs: data grid view

7.2 Tables

HA study results can be presented in a set of two-dimensional cross tables. HAPT has six standard tables. The structure and order of these tables cannot be changed. You can create customized tables. All tables can be exported to Excel files.

To view tables, follow these steps:

1. On the **VALIDATION** module, click the **Tables** submodule.

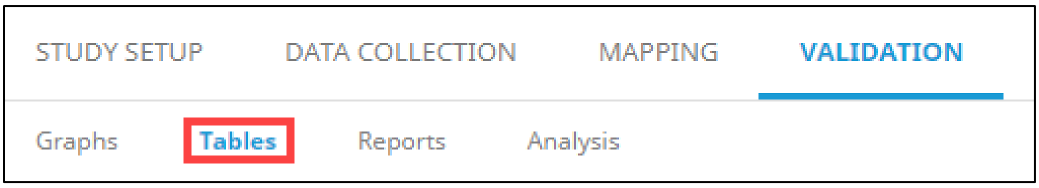


Fig. 7.18. Viewing tables

The **Tables** submodule is displayed.

2. Click **SYNC DATA**. A notification appears upon starting the sync operation. The time required for sync depends on study size.

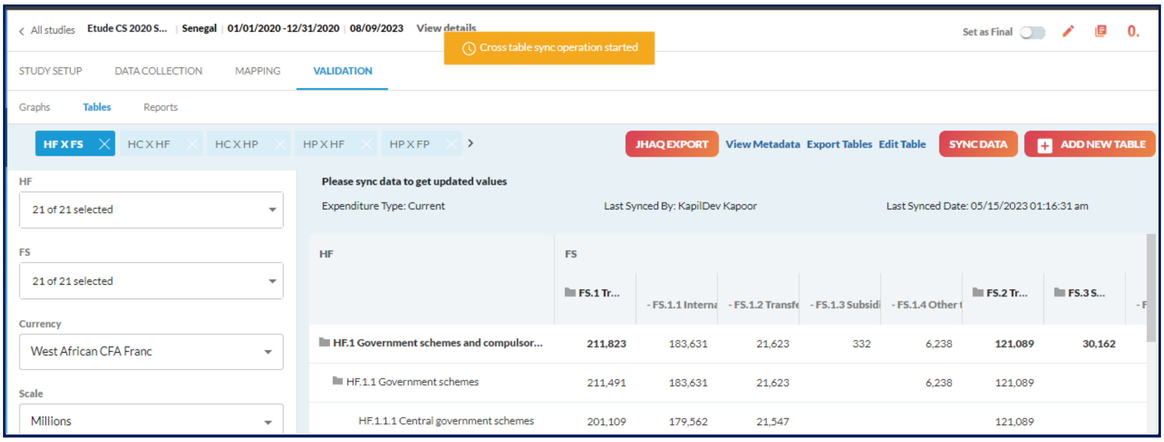


Fig. 7.19. Notification that the syncing of cross tables operation has started

3. When sync has completed, a confirmation is shown and you are asked to reload the screen. When the table is reloaded, updated data are displayed.

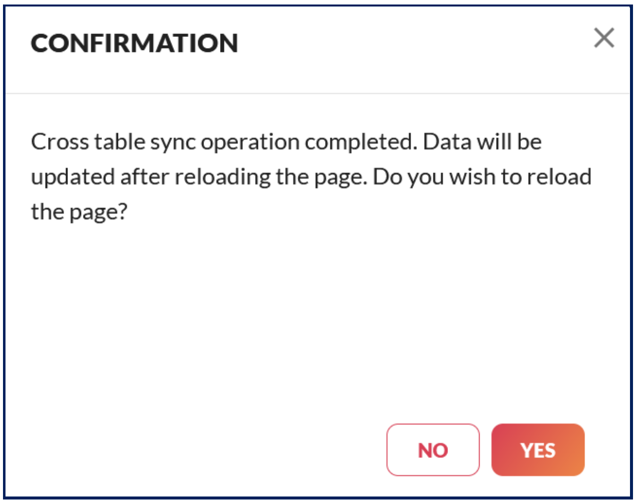


Fig. 7.20. *Confirmation* message

4. Select the required cross table, currency and scale.

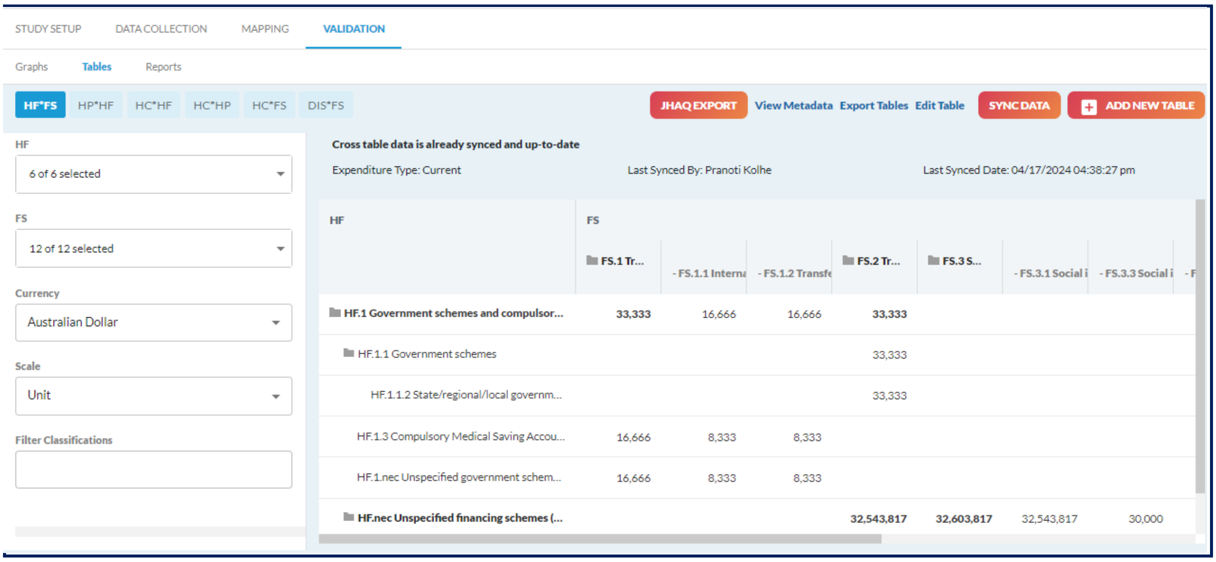


Fig. 7.21. Selecting cross tables

The *Tables* screen is displayed.

More details are shown in notification message for cross table sync.

Fig. 7.22. Notification that cross table sync has started

Fig. 7.23. Notification that cross table sync has completed

The start and completion notifications contain details for the cross table sync operation, such as study name, country and year.

Note

- Standard tables have a blue border and are highlighted in blue when selected, whereas custom tables have a grey border and are highlighted in grey when selected.

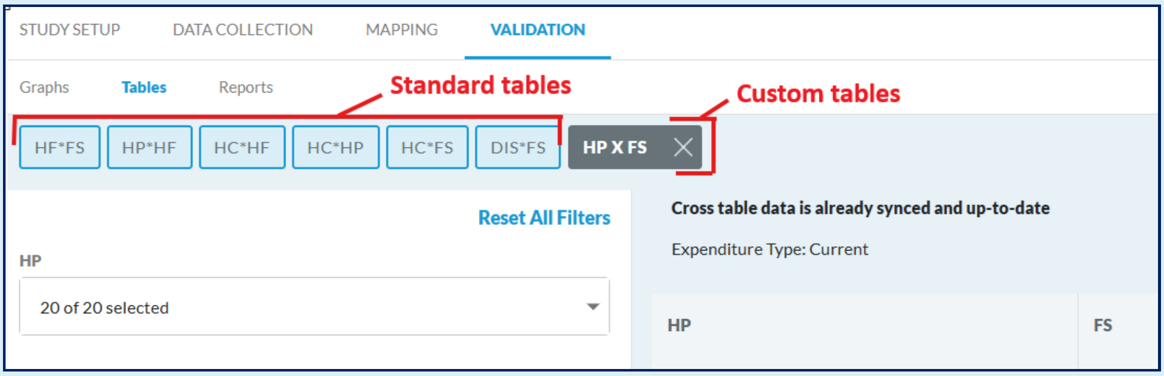


Fig. 7.24. Visual indication of standard and custom tables

- You cannot delete standard tables.
- If you edit a standard table, then a new table is created with a different name so that the standard table remains unchanged.
- Select the level of the classification from the drop-down list to move it up or down.

7.2.1 Adding a new table

This feature creates a new customized table with specific combination of classifications used to analyse the health expenditure in a country. To add a new table, follow these steps.

1. In the VALIDATION module, click the Tables submodule.
2. Click **ADD NEW TABLE**.

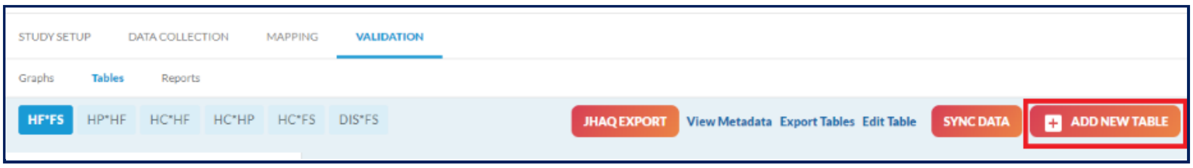


Fig. 7.25. Adding a new table

The ***Add New Table*** form is displayed.

3. Enter the details in required fields, and click **ADD**.

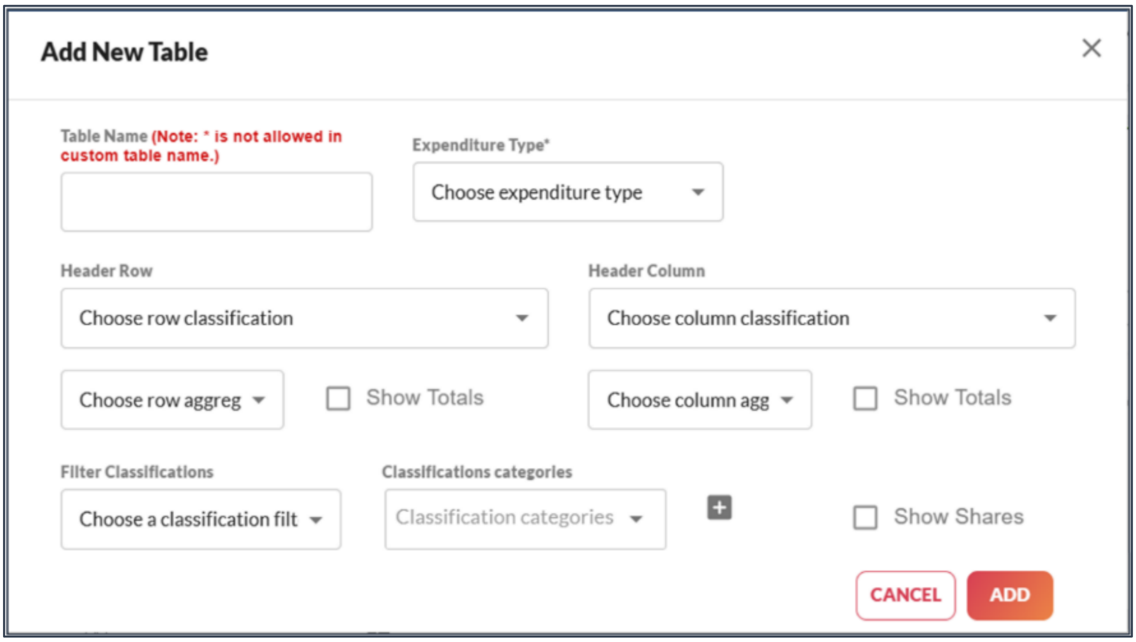


Fig. 7.26. The *Add New Table* form

The new table is added, and a confirmation message is displayed.

Note

- Click the trash icon ( ) beside the classification to remove the selection from the list.
- Click the add icon ( ) beside the classification to add a new classification.
- A table can be filtered by multiple classification categories. To select multiple categories, select the check boxes beside the classification categories.

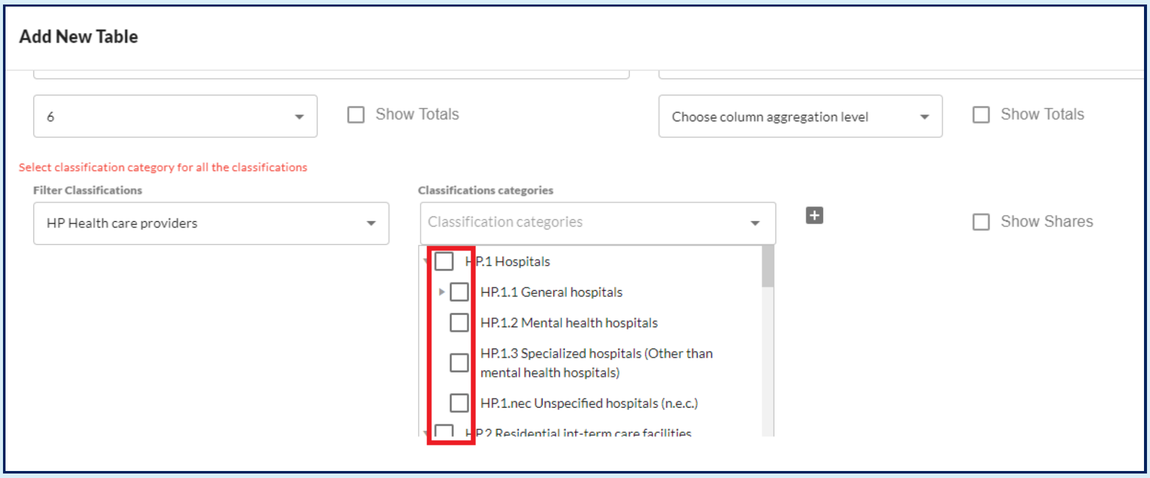


Fig. 7.27. Selecting multiple classification categories

- For a custom table, the separator between classifications should not be a * in the Name field.

Table 7.4 shows the fields in the ***Add New Table*** form.

Table 7.4. Description of fields and buttons in the *Add New Table* form

Field/button name	Description
Table Name	Allows setting the new table name.
Expenditure Type	Current, capital or related expenditure type can be used in the tables.
Header Row: Choose row classification	A classification should be chosen for the row of the table. In Fig. 7.26. , HF is shown in columns in the table.
Header Row: Choose row aggregation	Allows selection of the aggregation level of classification categories for the row.
Header Column: Choose column classification	A classification should be chosen for the column of the table. In Fig. 7.26. , FS is shown in the rows in the table.
Header Column: Choose column aggregation	Allows selection of the aggregation level of classification categories for the column.
Filter Classifications	A filter for the table with categories for different classifications. This function can be used to create multiple crosses with single categories from several classifications.
Classifications categories	One or more A categories for filtered classifications should be chosen for crosses.
Show Totals	Displays the totals of the selected categories in the table. You can choose whether or not to enable this feature.
Show Shares	Displays the percentages for the selected categories. You can choose whether or not to enable this feature.

7.2.2 Editing a table

This feature allows modification of the setup of the created, customized tables in the study. It does not allow editing of the table content and data. To edit a table, follow these steps.

1. On the **VALIDATION** module, click the **Tables** submodule.
2. Select the table you want to edit.

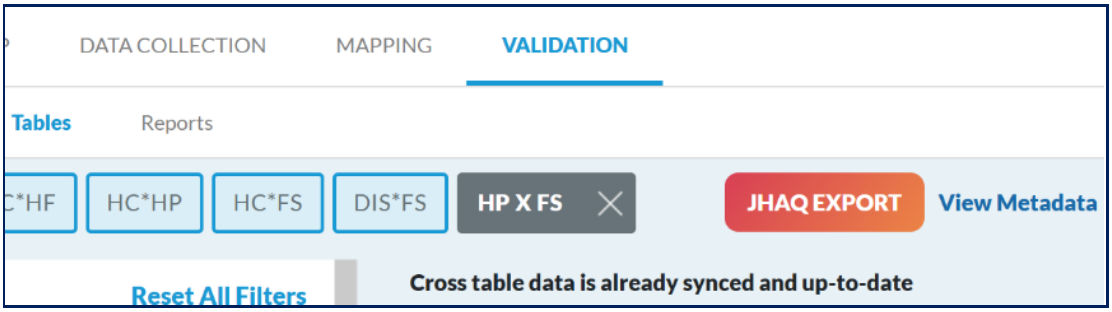


Fig. 7.28. Selecting a table to edit

3. Click **Edit Table**.

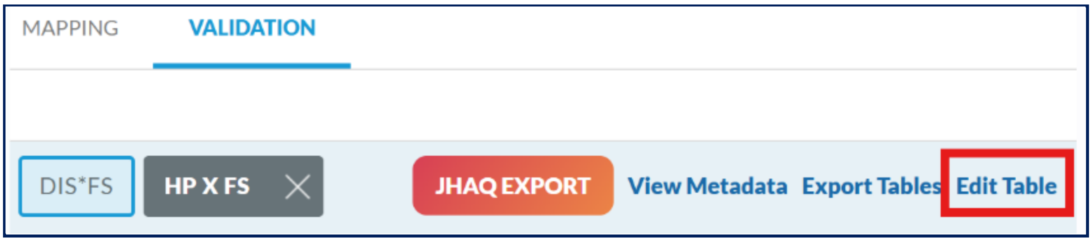


Fig. 7.29. Editing a table

The ***Edit Table*** form is displayed.

4. Modify the required fields, and then click **SAVE AS**.

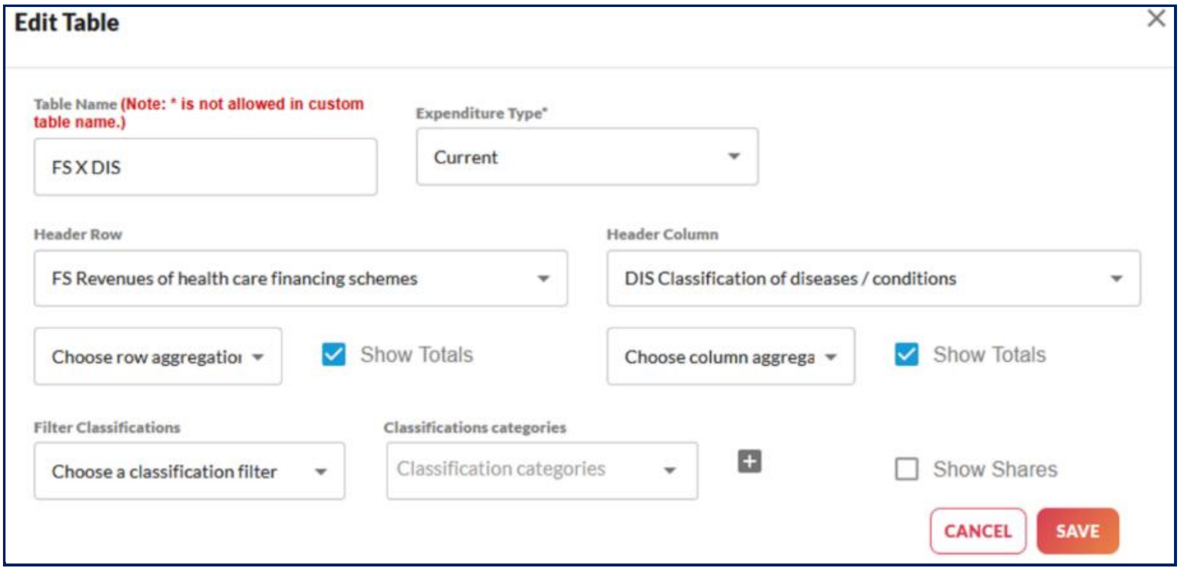


Fig. 7.30. The *Edit Table* form

The table is updated, and a confirmation message is displayed.

To see the fields and buttons of the ***Edit Table*** form, refer to Table 7.4.

Note

- A new table is created with different name when you edit a standard table. The standard table remains unchanged.
- For a custom table, the separator between classifications should not be a * in the **Name** field.

7.2.3 Exporting a table

This function saves cross tables in a `.xlsx` file format on your computer. Even if only one table is chosen, all tables will be exported in the file. You can then refer this file even if there is no internet connection. To export tables, follow these steps.

1. On the **VALIDATION** module, click the **Tables** submodule.
2. Select the table you want to export.

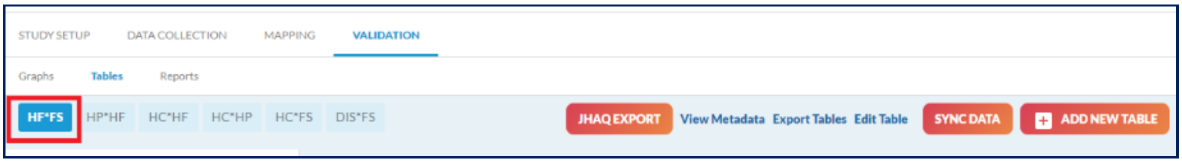


Fig. 7.31. Selecting a table for export

3. Click **Export Tables**.

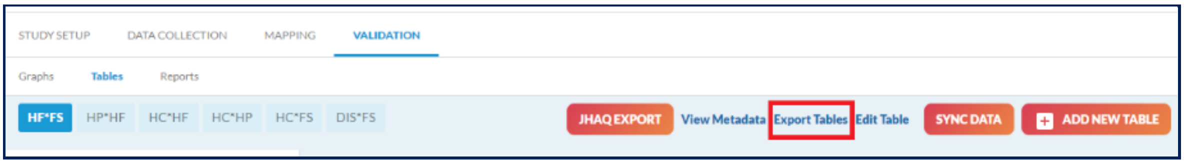


Fig. 7.32. Exporting a table

The ***Export*** form is displayed.

4. Enter the name under which you want to save the file, and then click **EXPORT**.

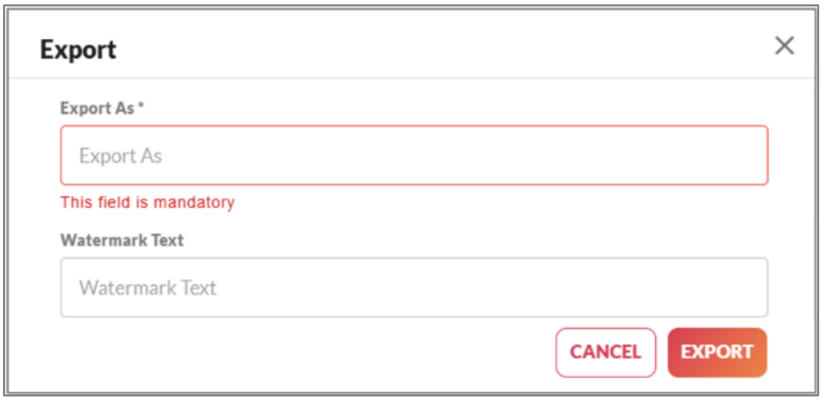


Fig. 7.33. The *Export* form

Provide optional watermark text to be included in the exported file.

The table is downloaded as a `.xlsx` file, in the default download location of the system. Time for export depends on table size.

More details are shown in the notification message for cross table export.

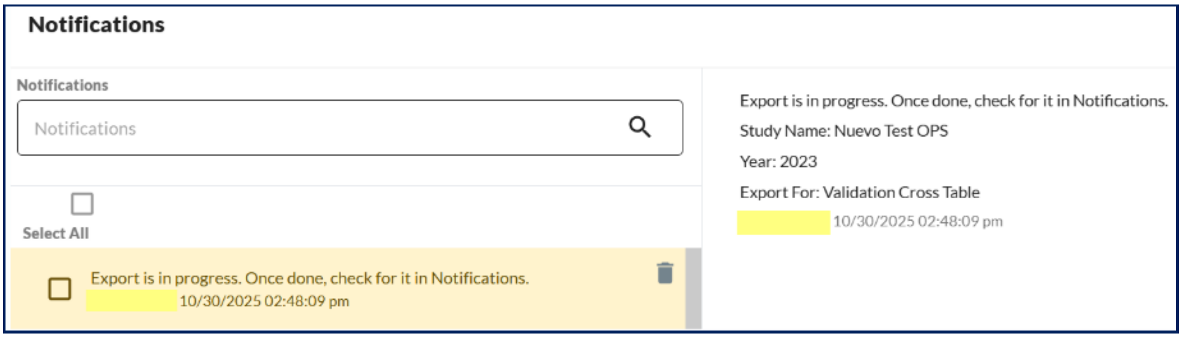


Fig. 7.34. Notification that cross table export has started

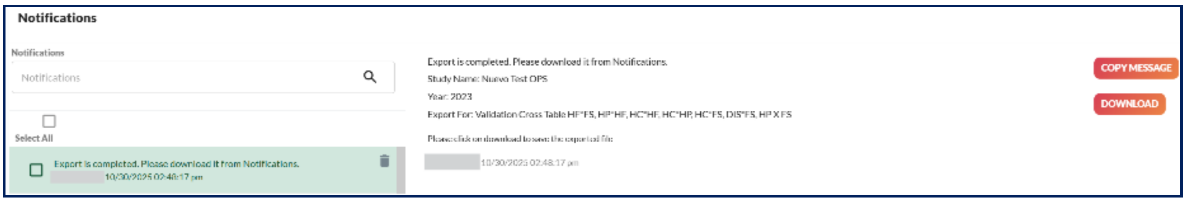


Fig. 7.35. Notification that cross table export has completed

The start and completion notifications contain the details of the export operation, such as study name, country and year.

The completion notification message shows a link to download the exported file. Click **DOWNLOAD** to save the file on your local machine.

7.2.4 View metadata

To view metadata, follow these steps.

1. On the **VALIDATION** module, click the **Tables** submodule.
2. Select the table.

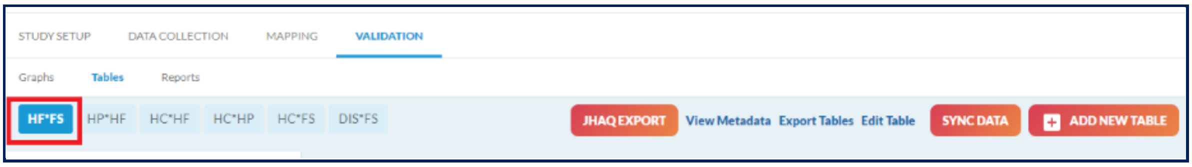


Fig. 7.36. Selecting a table to view metadata

3. Click **View Metadata**.

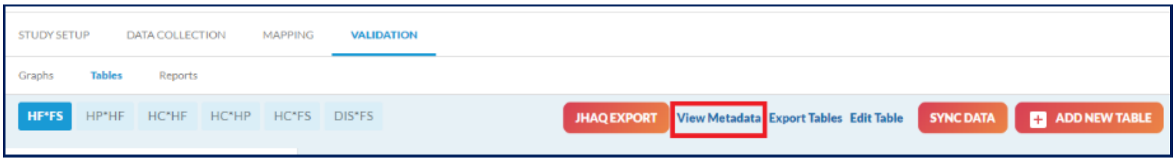


Fig. 7.37. Viewing table metadata

The ***View Metadata*** screen is displayed. It shows the data sources.

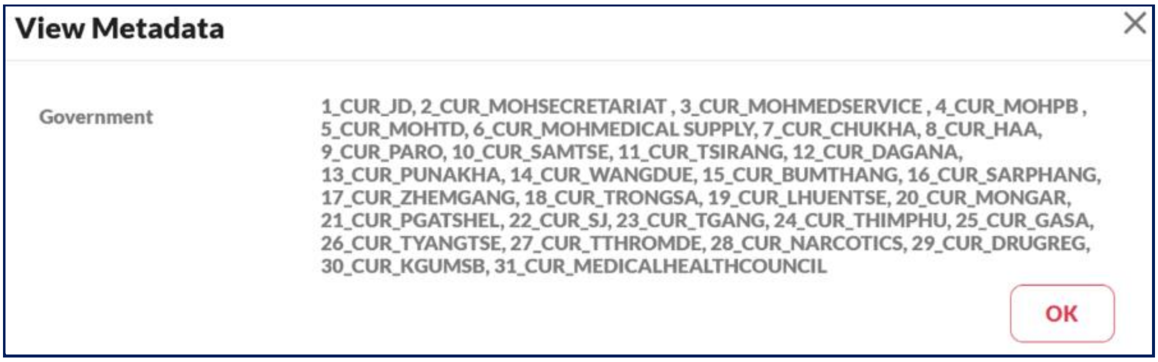


Fig. 7.38. The *View Metadata* screen

Note:

- To view tables for the first time, sync data first.
- Various information is shown, including the latest sync date and the name of the user who performed it.
- If the data in tables are up to date, no sync is required and a message is shown.

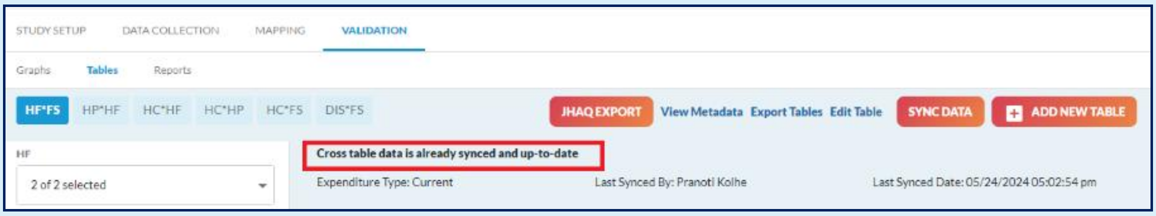


Fig. 7.39. Sync status

- Similarly, if there are any changes performed in the MAPPING or DATA COLLECTION modules, a message to sync data is shown. If a table is edited or created, a message to sync data is shown.

Fig. 7.40. Sync status

- The time needed for the sync operation depends on the size of study.

7.2.5 JHAQ report

This feature allows you to export HA study results in the form of a Joint Health Accounts Questionnaire (JHAQ) report. A JHAQ report for an HA study can be downloaded in `.xlsx` file format. This format includes seven sheets: General, HCXHF, HCXHP, HPXHF, HFXFS, HPXFP and HKXHP with the general information related to the study and the crosses.

To export a JHAQ report, follow these steps.

1. On the VALIDATION module, click the Tables submodule.
2. Click **JHAQ EXPORT**.

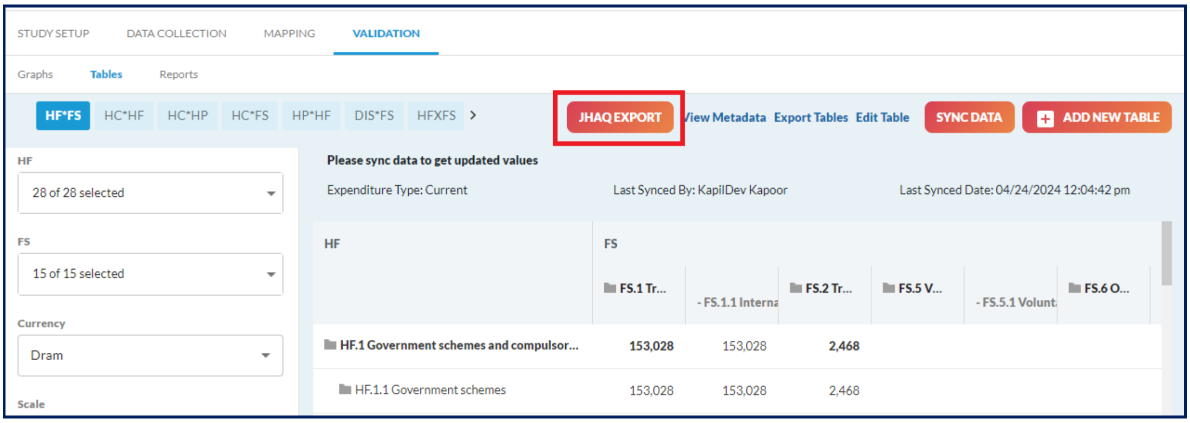


Fig. 7.41. Exporting a JHAQ report

3. JHAQ export starts and a pop-up notification is shown.

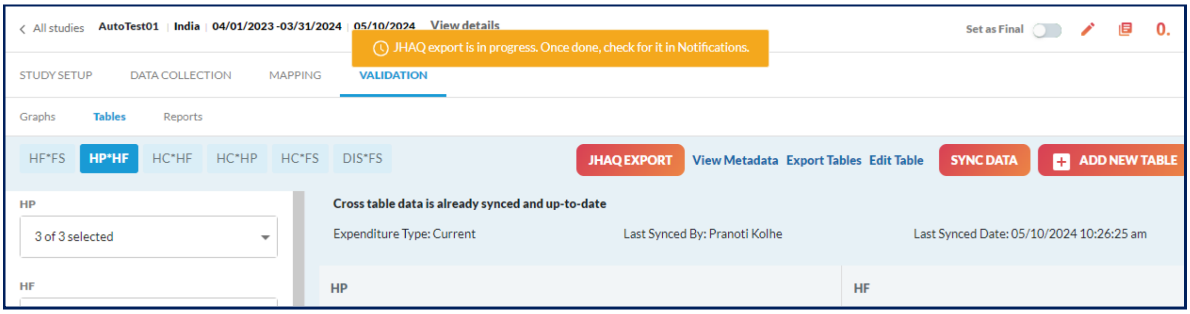


Fig. 7.42. Pop-up notification that JHAQ export is in progress

4. When JHAQ export completes, a pop-up notification is shown.

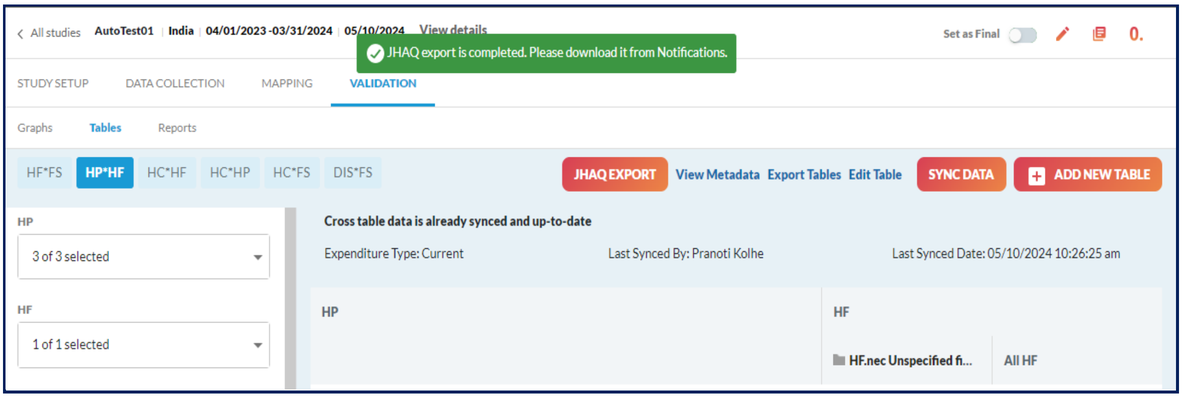


Fig. 7.43. Pop-up notification that JHAQ export has completed

5. When the JHAQ export is complete, you receive notifications for starting and completion of export to a JHAQ report.

The start and completion notifications contain the details for the export. Additional details such as study name, country and year are shown.

The completion notification message shows a link to download the exported file. Click **DOWNLOAD** to save the file locally.

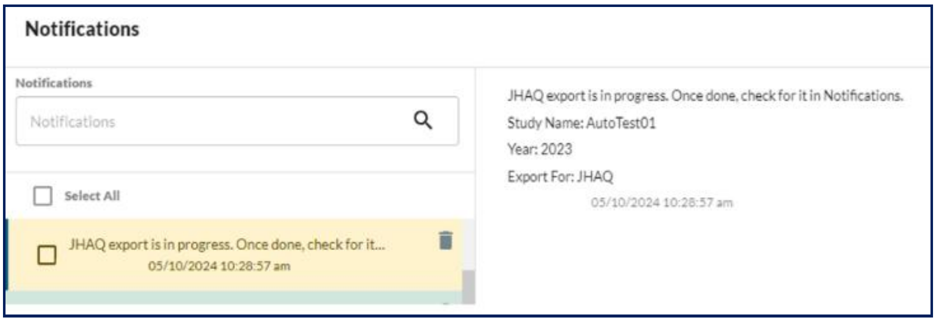


Fig. 7.44. Notification that JHAQ export has started

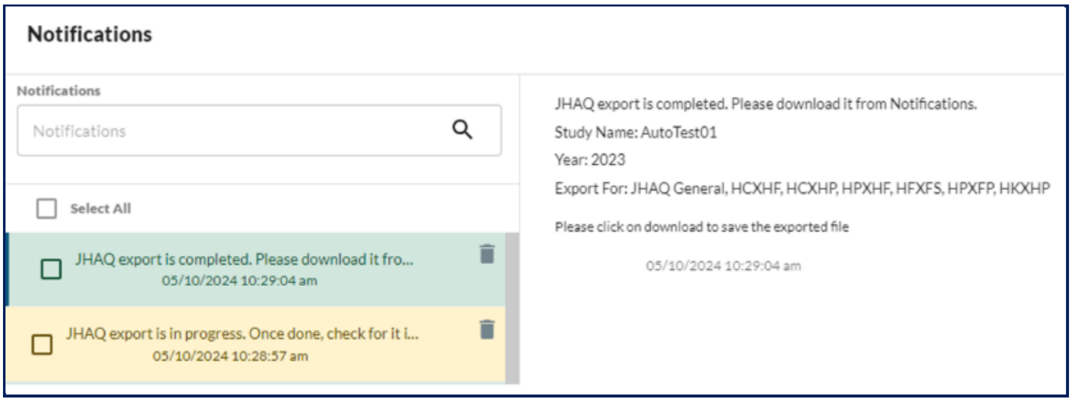


Fig. 7.45. Notification that JHAQ export has finished

6. Open the notification that JHAQ export has finished and click **DOWNLOAD**.

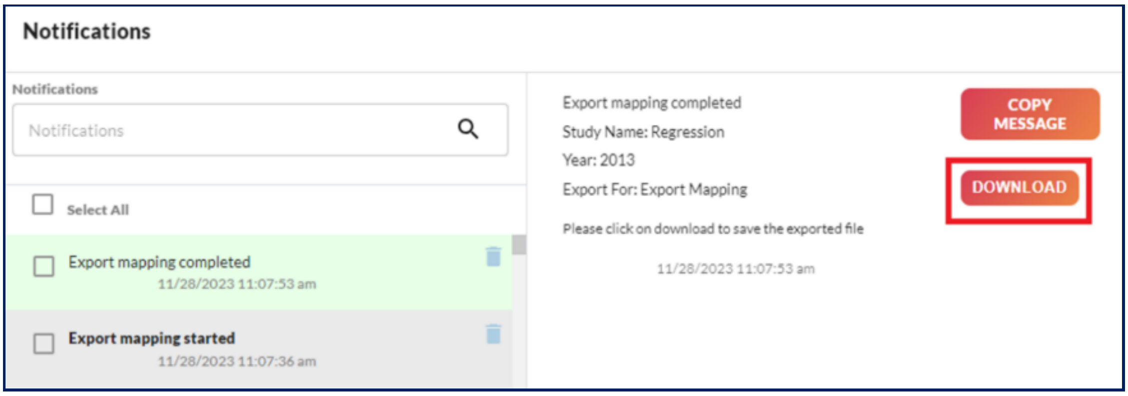


Fig. 7.46. Download the JHAQ export file from the notification

The JHAQ report is downloaded as a `.xlsx` file, downloaded in the default download location of the web browser. The Excel file contains seven sheets: General, HCXHF, HCXHP, HPXHF, HFXFS, HPXFP and HKXHP.

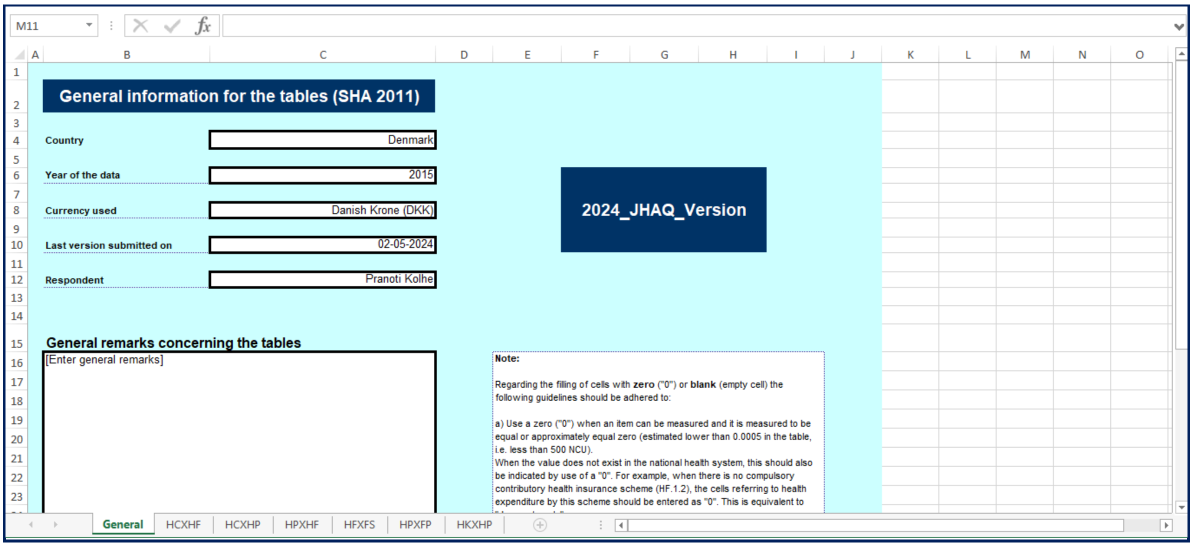
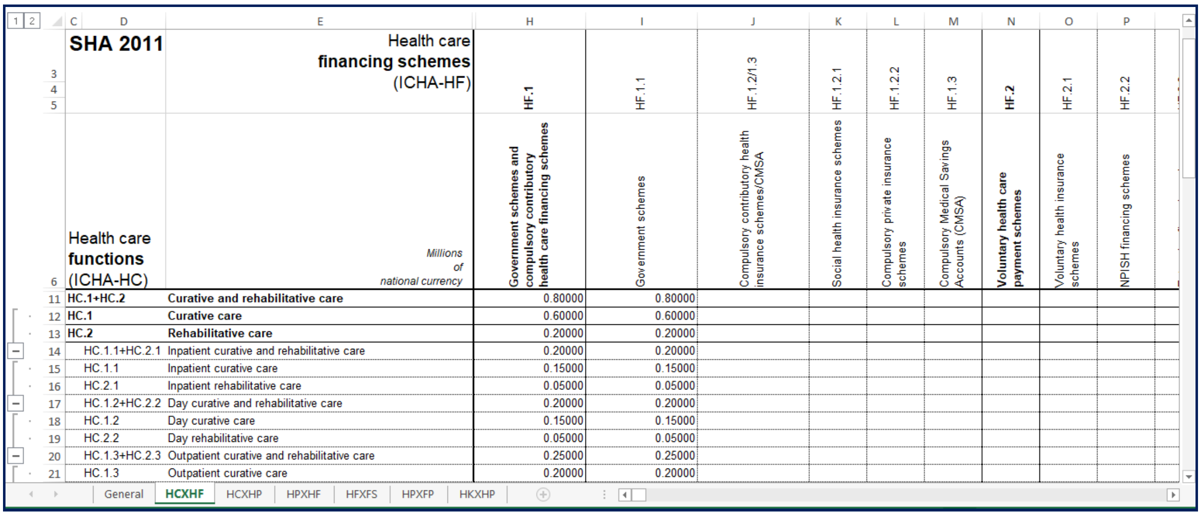


Fig. 7.47. Sample of an exported JHAQ file – General sheet

Table 7.5. Description of the fields in the General sheet

Report type	Description
Country	Country name is the country of the study
Year of the data	Year of the study
Currency used	Default currency of the study
Respondent	Full name of the user who created the study
General remarks concerning the tables	Comments added by users after the export of JHAQ to Excel
2024_JHAQ_Version	JHAQ version; the year is the reporting year
Note	Static text



SHA 2011

Health care **financing schemes** (ICHA-HF)

Health care **functions** (ICHA-HC) — *Millions of national currency*

		HF.1 Government schemes and compulsory contributory health care financing schemes	HF.1.1 Government schemes	HF.1.2/1.3 Compulsory contributory health insurance schemes/CMSA	HF.1.2.1 Social health insurance schemes	HF.1.2.2 Compulsory private insurance schemes	HF.1.3 Compulsory Medical Savings Accounts (CMSA)	HF.2 Voluntary health care payment schemes	HF.2.1 Voluntary health insurance schemes	HF.2.2 NPISH financing schemes
HC.1+HC.2	**Curative and rehabilitative care**	0.80000	0.80000							
HC.1	**Curative care**	0.60000	0.60000							
HC.2	**Rehabilitative care**	0.20000	0.20000							
HC.1.1+HC.2.1	Inpatient curative and rehabilitative care	0.20000	0.20000							
HC.1.1	Inpatient curative care	0.15000	0.15000							
HC.2.1	Inpatient rehabilitative care	0.05000	0.05000							
HC.1.2+HC.2.2	Day curative and rehabilitative care	0.20000	0.20000							
HC.1.2	Day curative care	0.15000	0.15000							
HC.2.2	Day rehabilitative care	0.05000	0.05000							
HC.1.3+HC.2.3	Outpatient curative and rehabilitative care	0.25000	0.25000							
HC.1.3	Outpatient curative care	0.20000	0.20000							

Fig. 7.48. Sample of an exported JHAQ file – other sheets

Note

- For more information on notifications, visit **NOTIFICATION** in the left-hand menu.
- The JHAQ template does not include Programme (non-SHA) categories, so mapping with the codes FS.6.nec, FS.7.2.nec, FS.nec, HF.1.2.nec, HF.1.nec, HF.2.nec, HF.3.nec, HP.1.nec, HP.3.nec, HP.8.3, HP.8.9, HC.1.3.nec, HC.2.nec, HC.3.nec, HC.4.nec, HC.5.nec, HC.6.nec and HC.7.nec causes an error message "JHAQ export failed" and a pop-up (Fig. 7.49).

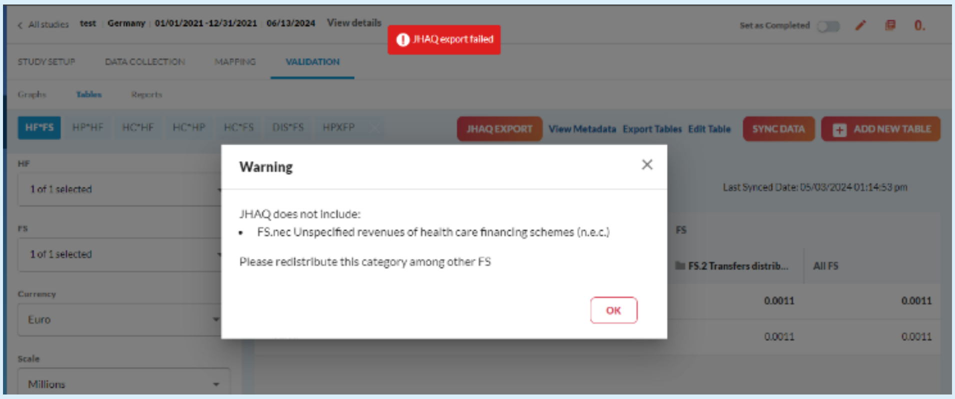


Fig. 7.49. Notification that JHAQ export failed

- This also triggers a notification that JHAQ export failed.
- If classifications are mapped to these codes, a pop-up warning appears, with instructions to redistribute these categories among other categories. No JHAQ is exported in this case.
- The name of the exported JHAQ file is generated automatically. The format is `20XX-T24-XXX`, where the fields are
  - `20XX` – year of the study

– T24 – year the data were submitted

– XXX – ISO country code or name.

- The JHAQ report shows values of the cross-classification categories that have been mapped in the study.

7.3 Reports

The **Reports** submodule in the **VALIDATION** module contains several types of reports. It summarizes the key activities and decisions made during the production of the HA study. Reports include the general information related to the study, such as summary of classifications, double count, metadata, split rules, and data collection. To print these reports, they should be exported first to Excel.

The reports are categorized into seven types, based on the information they contain. To create a report, follow these steps.

1. Under **VALIDATION** module, click the **Reports** submodule.

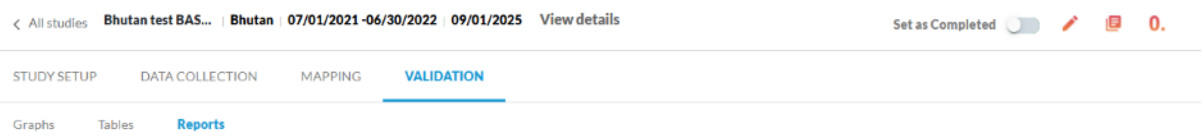


Fig. 7.50. Selecting the Reports submodule

2. Select the desired report type from the drop-down list.

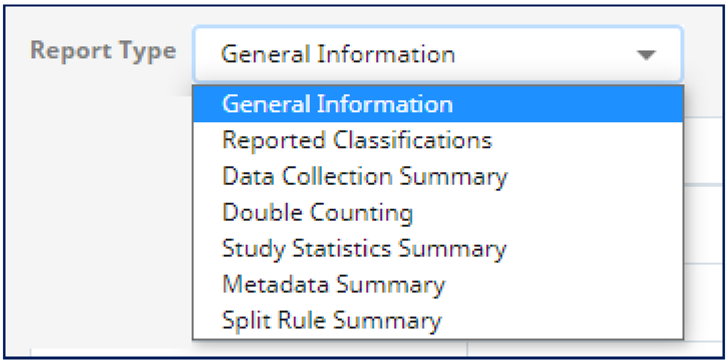


Fig. 7.51. Selecting the report type

Table 7.6 shows the report types in the drop-down list.

Table 7.6. Description of report types

Report type	Description
General Information	Displays general information: name of the study, country, year and time period, currency and exchange rates, and a field with the study description. Also displays a list of the selected classifications.
Reported Classifications	Displays the classifications categories mapped in the selected study.
Data Collection Summary	Displays information of all data sources for all data source types for the study. Includes the data source name, its details, and the method of data collection. Calculation of: • percentage of data available for study = (Number of data sources having data rows in a study ÷ Total number of data sources of all the data source types) × 100 • percentage of data imported for the data source = (Number of data sources having data rows ÷ Total number of data sources available under selected Data source types) × 100.
Double Counting	Displays the summary of double counting in the selected study. You can view information such as the data sources in which any double count has occurred, the total amount and the excluded amount of expenditure for each data source.
Study Statistics Summary	Displays the percentage of data sources whose data rows are available, as well as shares of mapped and flagged data rows for the study.
Mapping summary	Displays a mapping summary for all data source types for a selected study. Includes the percentage of mapped and unmapped rows and rows that are subject to quality check. Also, the number of rows that are excluded and flagged for review.
Split rule summary	Displays the split rule summary of all data source types for a selected study. Includes the split rule name, description, classifications, and number of classification items.

The report for the selected type is displayed. The General Information report is displayed by default.

Fig. 7.52. A report

7.3.1 Exporting reports

This function exports the selected reports in Excel format. Periodically exporting reports to the local system and filing them with care is useful in case of poor internet connectivity or no possibility to log in HAPT. To export reports, follow these steps.

1. Under the VALIDATION module, click the Reports submodule.
2. Click **EXPORT**.

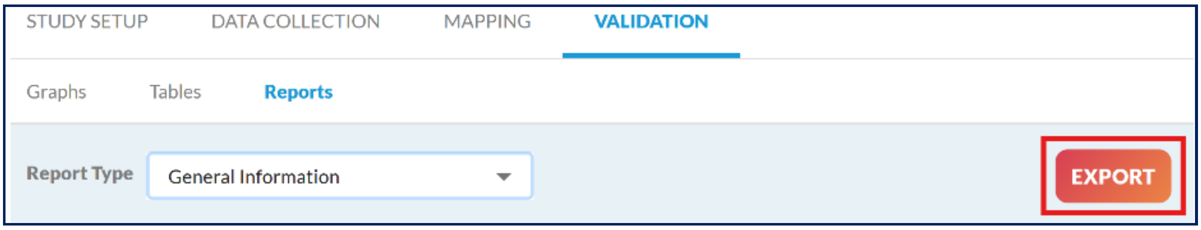


Fig. 7.53. Exporting reports

Export form is displayed.

3. Enter the report details in their respective fields, and then click **EXPORT**.

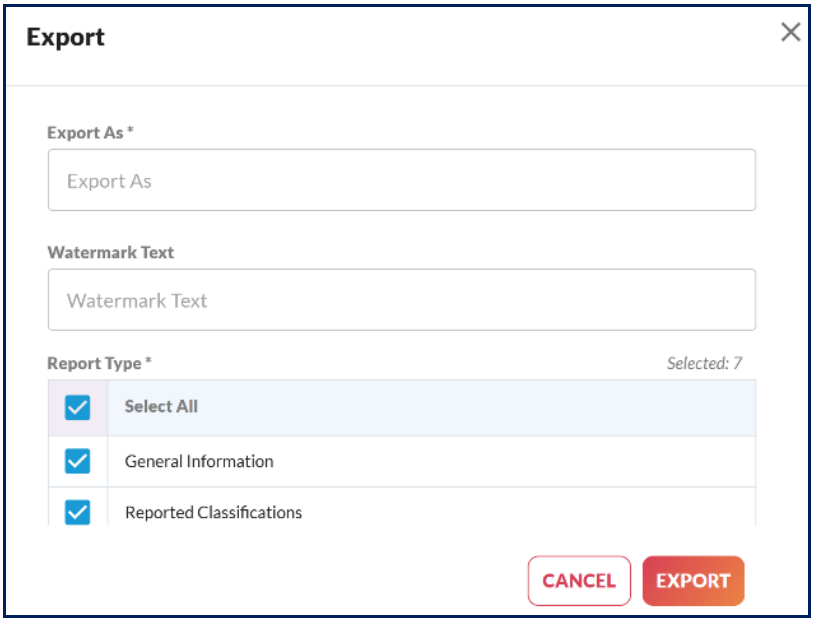


Fig. 7.54. Selecting reports to export

The reports you have selected are exported as a `.xlsx` file, in the default download location of the system. Table 7.7 describes the fields of the ***Export*** form.

Table 7.7. Description of the fields in the *Export* form

Field name	Description
Export As	The name of the reports you want to export to the local computer system.
Report Type	The types of reports to export. Several reports can be exported at once.

Note

- You can select to export all reports by clicking the **Select All** check box in the ***Export*** form.
- The **Selected** field indicates the number of reports selected in the ***Export*** form.

8. Troubleshooting

Problems	Causes	Remedies
Not able to download the survey.	Network connection may not be available.	Check for availability of the network connection.
Not able to bind the columns while importing the data.	The columns present in the tool and columns available in the Excel sheet may not have the same names.	Import an Excel sheet with the appropriate column names or bind columns manually.
Not able to see the records.	Network connection may not be available.	Check for availability of the network connection. Refresh the page and try again.
Not able to select countries.	User role may not be selected.	Select a user role to access the countries associated with that user role.
Not able to select the data for performing mapping.	**Select for mapping** button is not present on the MAPPING module page.	Make sure the data source you select in the MAPPING module already has data. Then, the mapping tree will display. Click on the classification node you want to map and follow the steps outlined in section 6.1.
Not able to apply split pattern.	The classification is already mapped.	Unmap the classification and try again.
Connection issues	Cache is not cleared.	Clear the cache. For Firefox: 1. Click the menu button (hamburger button) and select **Settings**. 2. Select **Privacy & Security**. 3. In the “Cookies and Site Data” section, click **Clear Data**. 4. Remove the check mark in front of “Cookies and site data”. 5. Check “Temporary cached files and pages”. Click **Clear**. 6. Close the browser, reopen it, and start again.

Problems	Causes	Remedies
		For Chrome: 1. Click the 3-dot menu (top-right). 2. Click **Settings**. 3. Click **Privacy and security**. 4. Click **Delete browsing data**. 5. Select **Cache images and files**. 6. Click **Clear data**. For Edge: 1. Click the 3-dot menu (top-right). 2. Click **Settings**. 3. Click **Delete browsing data**. 4. Click **Choose what to clear every time you close the browser**. 5. Toggle **Cached images and files**. 6. Close the browser, reopen it, and start again. For Safari: 1. Select **Safari** > **Preferences**. 2. Click **Advanced** and check the box next to “Show develop menu”. 3. From the menu bar, select **Develop** > **Empty caches**.
Browser requirements		Supported browsers: Microsoft Edge 44.18362.449.0 and above Google Chrome 81.0.4044.92 and above Mozilla Firefox 68.7.0 and above Safari 12.1.2 (14607.3.9) and above
Screen requirements		The application is best viewed on screens of more than 1024 pixels. It is not designed for mobile devices.

Glossary

Classification: Classifications categorize health expenditures across different dimensions using the SHA 2011 methodology. There are 21 classifications available in HAPT.

Country user (CU): Users with the CU role have access to assigned countries with read-only permissions.

Data row: This is an individual row of health study data. A data row is added for data sources such as government, miscellaneous, and household. Health study data can be manually updated in data rows.

Data source: Data sources are the major contributors of funding to the health system. Institutional surveys are designed and sent to the data sources to gather information on health expenditures.

Data source type: The various sources that provide information about these expenditures are known as data source types. The eight data source types provided within the application are:

1. Donor
2. NGO
3. Employer
4. Insurance
5. Government
6. Miscellaneous
7. Household
8. Provider.

Double counting: Excludes expenditures that are duplicated within a study. The duplication occurs due to different data sources reporting same expenditure for a country for a year. Recognizing and correcting for double counting helps remove redundant health expenditure and gives more accurate estimation of health expenditure.

Mapping: The process of classifying data across various classifications. It allows users to apply the codes of categories and classifications from the application to the data nodes.

Programme owner (PO): A programme owner is a type of user role in offline version of HAPT. The PO has access to the additional setup features application and can perform any function. A user with a PO role has access (read, write, edit, delete).

SHA: The System of Health Accounts (SHA) is an internationally standardized methodology that allows the systematic tracking of flows of expenditures in a health system.

Split rule: Split rules are used to split the classifications for a given study among different classification items. This helps track the exact expenditure amount collected from the data sources.

Study: The production tool supports the creation of "studies" for one country and for a year. A study captures the health expenditure data for a year for a country.

Survey: Surveys are used for data collection. A survey is a set of predefined questions used to obtain the information about the total expenditure carried out by various sources. Data can be gathered using surveys using standard templates for five data source types: donor, NGO, employer, insurance, and provider.

Team lead (TL): Team lead (or leader) is a user role. TLs have access to only those countries with which they have been associated. A TL has read, write, edit and delete permissions for the assigned countries.

Team member (TM): Team member is a user role. TMs have access to only those countries and data source types with which they have been associated. A TM has read, write, edit and delete permissions of assigned countries and data source types.

Weighting: Weighting is used to extrapolate data from a subset of data. Data are collected to calculate total current health expenditure amounts.

Annex 1. List of metadata fields for all data source types by survey

Donor

- Name
- Position
- Email address
- Contact no.
- Name of project/programme
- Description of project
- Source of funds for this project
- Recipient organization name (non-capital expenditures)
- Description for activities undertaken in project
- Disease on which money was spent
- Age group benefited
- People benefited (if disease selected was HIV)
- Recipient organization name (capital expenditures)
- Capital expenditures exported by your organization in reporting period
- Disease on which money was spent

Nongovernmental organization

- Name
- Position
- Email address
- Contact no.
- Type of NGO
- In addition to using your information in an aggregate manner, would you approve the disclosure of your organization's name and contribution in the final national health accounts report?
- Is this NGO a health care facility?
- Does this NGO provide health care services?
- Does the government appoint officers to the NGO?
- Is there a contractual agreement with the government?
- Do you get financing support by the government?
- Project name
- Description of project
- Source of funds for this project

- Provider (non-capital expenditures)
- Factors of provision
- Activity carried by the provider
- Disease on which money was spent
- Age group benefited
- People benefited (if disease selected was HIV)
- Capital expenditure spent on (capital expenditures)
- Capital expenditures exported by your organization in reporting period
- Disease on which money was spent

Employer

- Name
- Position
- Email address
- Contact no.
- Name of firm/entity
- Firm/entity ownership
- Principle activity
- Number of full-time employees
- Number of part time employees
- Nature of health benefits provided
  - who was entitled to receive health benefits?
- Own health facilities
  - non-capital expenditures
    - services on which amount was spent
    - factors of provision
  - capital expenditures
    - capital expenditure by type of assets
    - disease on which money was spent
- Contract with health care provider
  - health care services provided to your employees at health facilities
- Reimbursement of employees
  - how much in total did you reimburse your employees for health services upon presentation of receipts?
- Treatment abroad
  - what was the total employer contribution to the treatment abroad?
  - the services on which the amount was spent
  - expenditure by services
- Workplace programmes
  - non-capital expenditures

        - what was the total amount of money that you spent providing health care to your employees through workplace programmes (do not report any amount that was previously reported in own health facilities)?
        - workplace programmes on which amount was spent
        - expenses made on programmes
        - what was the disease was the money spent on?
        - factors of provision for services
        - amount spent on factors for provisioning services
    - capital expenditures
        - how much did you spend on capital expenditures at your own health facilities?
        - how did you spend capital expenditures?
        - amount spent on capital expenditure
        - what disease was the money spent on?
- Corporate social responsibility
    - what was the total amount of money that you spent on corporate social responsibility programmes for health
    - corporate social responsibility programmes offered.
    - expenses made for programmes
- Programme details
    - what was the total amount of money that you spent on other?
    - what was the health service for which amount was spent?
    - please specify the amount or percentage breakdown for same

Insurance

- Name
- Position
- Email address
- Contact no.
- What type of insurance did you offer?
- Non-capital expenditures
    - factors of provision
- Capital expenditures
    - items capital expenditure was spent on
    - expenses made with respect to capital expenditure (CapExp)
- Health insurance expenditures
    - expenditures to providers receiving health service
    - health service provided at selected provider
- Life insurance expenditures
    - sources of income
    - expenditures to providers receiving health service
    - health service provided at selected provider
- Car insurance expenditures
    - expenditures to providers receiving health service

  - health service provided at selected provider
- Other insurance expenditures
  - sources of income
  - expenditures to providers receiving health service
  - health service provided at selected provider

Provider

- Name
- Position
- Email address
- Contact no.
- Name of facility
- Facility identification/registration code (if exists)
- National classification code of activity (or ISIC Rev 4/NACE etc.)
- Type of health care provider
- Name services the facility provides (curative, rehabilitative, inpatient, family doctor's consultations etc.)
- Region/address of facility
- Number of employees
- Did you have any health expenditures between "& StartDate &" and "& EndDate &"?
- What currency will you use to fill out all questions in the survey?
- What is your total expenditures (except capital expenditure) for the same time period?
- What is your capital expenditure on health for the same time period? (CapExp)
- Non-capital expenditures
  - what were the sources of revenues?
  - please specify the factors of provision for same (line items under which amount is spent) with respect to revenue
  - please specify the activities that were carried on by the provider with respect to sources of revenue
  - what disease was the money spent on?
- Capital expenditures
  - what capital expenditures were exported by your organization in reporting period?

Annex 2. List of metadata fields of all data source type by secondary data source

Donor

- Budget line code
- Comment
- Name of respondent
- Contact number
- Position of respondent
- Description of project component
- Descriptive information 1
- Descriptive information 2
- Descriptive information 3
- Descriptive information 4
- Descriptive information 5
- Email address of respondent
- NGO
- Project description
- Project name
- Source of funding
- File name
- Line number

Nongovernmental organization

- Budget line code
- Comment
- Name of respondent
- Contact number
- Position of respondent
- Description of project component
- Descriptive information 1
- Descriptive information 2
- Descriptive information 3
- Descriptive information 4

- Descriptive information 5
- Disease
- Does this NGO provide health care services?
- Email address of respondent
- Factor of provision
- Activity (function)
- Would you approve disclosure of your organization's name and contribution in the final NHA report?
- Is there a contractual agreement with the government?
- Do you get financing support by the government?
- Is this NGO a health care facility?
- Age
- Project description
- Project name
- Provider
- Source of funding
- Type of NGO
- File name

Employer

- Benefit type
- Budget line code
- Comment
- Name of respondent
- Contact number
- Position of respondent
- Descriptive information 1
- Descriptive information 2
- Descriptive information 3
- Descriptive information 4
- Descriptive information 5
- Email address of respondent
- Number of full-time employees
- Services provided
- Type of employer
- File name

Insurance

- Benefit type
- Budget line code
- Comment
- Name of respondent
- Contact number

- Position of Respondent
- Descriptive information 1
- Descriptive information 2
- Descriptive information 3
- Descriptive information 4
- Descriptive information 5
- Email address of respondent
- Function
- ICD category
- ICD subcategory
- ISIC
- Number of people covered by health insurance
- Provider
- Source
- File name

Government

- Budget line code
- Comment
- Descriptive information 1
- Descriptive information 2
- Descriptive information 3
- Descriptive information 4
- Descriptive information 5
- ICD category
- ICD subcategory
- ISIC
- Unique index
- File name

Miscellaneous

- Budget line code
- Comment
- Descriptive information 1
- Descriptive information 2
- Descriptive information 3
- Descriptive information 4
- Descriptive information 5
- Unique index
- File name

Household

- Budget line code
- Comment
- Name of respondent
- Contact number
- Position of respondent
- Descriptive information 1
- Descriptive information 2
- Descriptive information 3
- Descriptive information 4
- Descriptive information 5
- Email address of respondent
- Health service
- Provider
- Reference number
- Unique index
- File name

Provider

- Budget line code
- Comment
- Comment 1
- Comment 2
- Name of respondent
- Contact number
- Position of respondent
- Descriptive information 1
- Descriptive information 2
- Descriptive information 3
- Descriptive information 4
- Descriptive information 5
- Disease
- Email address of respondent
- Facility identification code
- Factor of provision
- Activity (function)
- ISIC
- Type of health care provider
- Source of funding
- File name