

USER
MANUAL



ETF GHG INVENTORY REPORTING TOOL

UN CLIMATE CHANGE
TRANSPARENCY DIVISION



United Nations
Climate Change

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I. Introduction

In accordance with decision 18/CMA.1, Parties are required to submit their first biennial transparency report (BTR) in accordance with the modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement (MPGs), by latest 31 December 2024. BTRs are to be submitted every two years thereafter. The contents of the BTRs are outlined in decision 18/CMA.1 and include:

- A national inventory report of anthropogenic emissions by sources and removals by sinks of GHGs;
- Information necessary to track progress made in implementing and achieving nationally determined contributions under Article 4 of the Paris Agreement; and
- Information on financial, technology development and transfer and capacity building (FTC) support provided and mobilized (for developed countries) or FTC support needed and received (for developing countries).

The Conference of the Parties serving as the meeting of the Parties to the Paris Agreement adopted through decision 5/CMA.3 a set of common reporting tables (CRT) to report GHG inventory information and separate sets of common tabular formats (CTF) for reporting information on tracking progress and FTC support.

The Parties requested the secretariat to incorporate the agreed formats and approaches in electronic reporting tools to enable Parties' reporting of the CRT and CTF. For this purpose, the secretariat developed three electronic reporting tools for the reporting of the CRT and CTFs:

- ETF GHG Inventory Reporting Tool
- ETF Progress Reporting Tool
- ETF Support Reporting Tool

A separate user manual has been prepared for each electronic reporting tool.



1.1 Purpose and Scope of the Manual

This manual guides the user in preparing the submission of the CRT for GHG inventory.

For user manuals on establishing user management roles within the Party for all three reporting tools and steps for official submissions of CRTs and CTFs, refer to <https://unfccc.int/etf-reporting-tools-help>.

This manual has been prepared to coincide with the version of the ETF GHG Inventory Reporting Tool (hereinafter referred to as the reporting tool) available as of 28 June 2024. Some features, such as preparing an inventory from an existing inventory, elements in the Quality Assurance/Quality Control screen, recalculations, multilingual support and data visualization, are still under development. This manual will be updated in the future to accommodate these additional features, as well as to explain any further refinements to enhance user friendliness.



1.2 Organization of this Manual

This manual is organized as follows:

- Section 1: **Introduction** provides background and general information on the ETF Reporting Tools, focusing on the ETF GHG Inventory Reporting Tool.
- Section 2: **Layout of ETF GHG Inventory Reporting Tool** describes the features of the main menu, including “Inventories”, “Data entry”, “Reporting Tables”, “QA/QC” and the sub-header and footer bars.
- Section 3: **Getting Started** provides information necessary for the user to initiate a working version of the inventory, including specifying version settings that reflect national circumstances.
- Section 4: **Preparing a GHG Inventory** describes the steps required for data entry when preparing an official GHG inventory submission.
- Section 5: **Quality Assurance / Quality Control** describes the various features of the tool to internally validate and review the inventory, prior to its submission, as well as the key category analysis.
- Section 6: **Submission** directs the user on the next steps to submit an official GHG inventory as part of the BTR submission.
- Section 7: **Abbreviations and Acronyms** used in the manual are described in this section.



1.3 Technical Information

The ETF GHG Inventory Reporting Tool is web-based and can be used on any modern internet browser (e.g., Firefox, Edge, Chrome, or Safari).

Table 1 provides the application, metadata and .json data exchange version for which this manual was developed.

Table 1. Technical Information upon which this version of the manual was based

Application version	e14a3ac4fd4b45c5c484ee2f59155e11
Metadata version	1.27.4
Data exchange .json	1.0
URL	https://myapps.unfccc.int

Information on the application version and metadata version of the version of reporting tool can be found on the footer bar of the user interface, visible in all views.

Application version: 1019cc3ee79782deebbc8771b81392b6 | Metadata version: 1.23.1 | Last synchronized: 2024-03-11 17:04 (UTC-4)

1.3.1 Software Requirements

To be able to fully use the functionalities available in the reporting tool, the user's computer should be equipped with:

- Modern browsers following the latest HTML standards – this version has been tested in recent desktop versions of Microsoft Edge, Mozilla Firefox, Google Chrome, and Safari.
- Microsoft Excel 2010 or higher—allows for export and import of data entry grids in Excel format and the generation of reporting tables into Excel.
- Operating systems: Windows, Macintosh compatible.

1.3.2 User Support

The UNFCCC secretariat is committed to provide efficient and effective support to users and to continue enhancing the reporting tool. Users are encouraged to immediately report any questions, bugs or technical problems regarding the use of the tool.

For further information about the use of the tools (e.g. user manuals, technical documentation, etc.) or to report any issues, please refer to <https://unfccc.int/etf-reporting-tools-help>.

ETF reporting tools help page.

This page contains resources designed and developed to facilitate the effective use of the ETF reporting tools

User Manuals and Training Materials: Step-by-step instructions to navigate and use the ETF reporting tools and resources and tutorials designed to enhance users' skills and knowledge in using the tools.

Technical Documentation: Documents to help users understand the technical aspects of the metadata and data exchange standard structure relevant to the tools.

Frequently Asked Questions (FAQs): Answers to common questions about the ETF reporting tools

Report issues and incidents: Link to ServiceNow portal to report issues and incidents relating to the ETF reporting tools.

User manuals
and training
materials

Technical
documentation

Frequently
asked
questions

Report issues
and incidents

The information and resources will be uploaded shortly.

1.3.3 Overview of the Workflow for CRT Submission

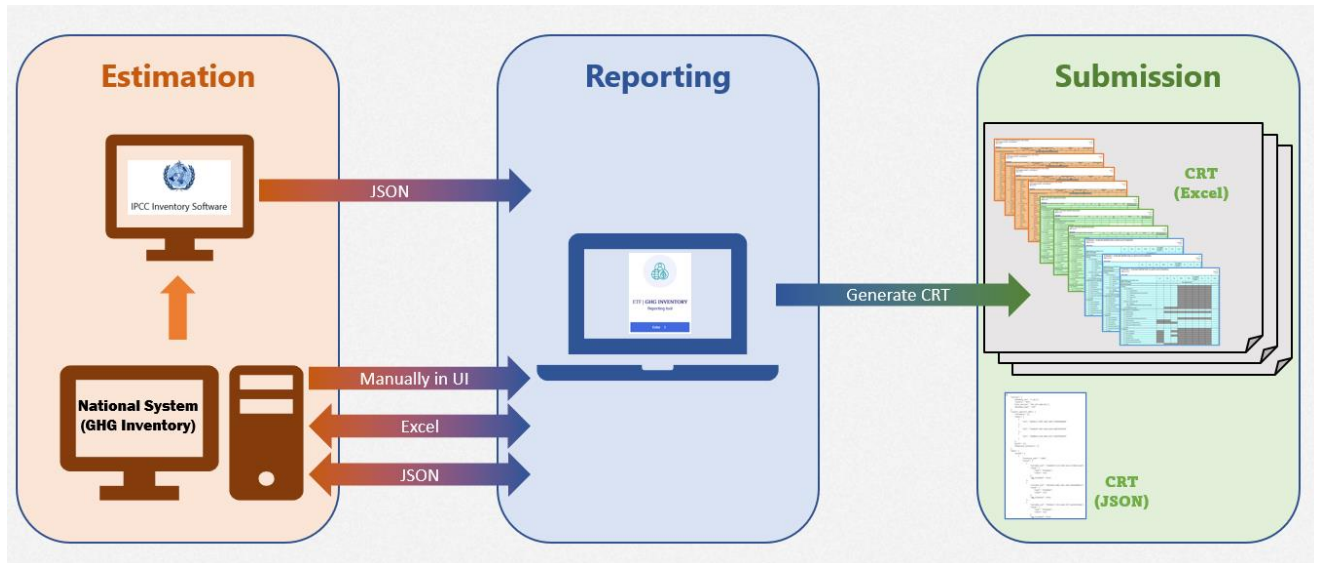
The reporting tool allows the user to electronically report the GHG inventory to the UNFCCC in the agreed structure of the CRT. The tool ***does not calculate/estimate*** a Party's GHG emissions/removals.

The overall workflow for a Party preparing a CRT submission is as follows:

1. **Estimate the national GHG inventory:** Emissions estimation occurs outside the reporting tool. Parties may have various institutional arrangements for preparing a GHG inventory (e.g. excel files or a database system) or may use the IPCC Inventory Software.
2. The reporting tool **contains a series of data entry grids for each category of the CRT**, and allows users to enter underlying activity data, GHG emissions and parameters for a given category and for all years of the time series. Data can be imported from a Party's own national system, where the GHG inventory has been prepared following a pre-defined excel or .json structure, including from the IPCC Inventory Software. Users may also manually enter their GHG Inventory into the reporting tool, but this task may be time consuming depending on the complexity of the GHG Inventory and the number of years reported.
3. The reporting tool has an **integrated function to generate the reporting tables**, in the agreed format of the CRT, and to submit the CRT to the UNFCCC. It should be noted that the user never fills in the CRT tables directly as an excel file. Further, the data entry grids of

the reporting tool do not exactly look like the excel tables for a single year of the CRT, rather they are structured for the user to be able to include all the necessary data for a category across the time series and generate the CRT as an output. The tool can also prepare a .json file containing the GHG Inventory.

Figure 1. Workflow for Preparing a CRT Submission



Source: UNFCCC



1.4 Accessing the Reporting Tool

Users can access the reporting tools at UNFCCC My Apps (<https://myapps.unfccc.int>). The user can view all the apps, including the reporting tools, at the landing page of UNFCCC My Apps, depending upon the user's access rights. The user needs to click the icon of the reporting tool to access it.

The screenshot displays the UNFCCC My Apps interface. At the top, a dark blue header contains the UNFCCC logo and 'MY APPS' on the left, and 'Party: NPL' with a refresh icon on the right. Below the header, the main content area is titled 'My apps'. It features a search bar with the placeholder 'Search app' and a 'Filter by category' button. Below the search bar, it indicates 'Total apps: 5' and provides sorting options 'Sort by: App A-Z' and view toggles 'Grid View' (selected) and 'List View'. The main area contains five application tiles, each with an icon, a title, a subtitle, and a category tag:

- GHG INVENTORY**: Inventory (CRT), ETF
- HELP**: Application Support, (no tag)
- MY TEAM**: User Access Management, UNFCCC
- PROGRESS**: NDC, ETF
- SUPPORT**: FTC, ETF

II. Layout of the ETF GHG Inventory Reporting Tool

This section of the manual describes the layout, information available and functions in the header, sub-header and footer bars of the reporting tool. These bars are present in all pages of the tool.

The screenshot shows the interface of the ETF GHG Inventory Reporting Tool. The top navigation bar (Header bar) contains tabs for 'Inventories', 'Data entry', 'Reporting tables', and 'QA/QC'. Below the navigation bar, the status bar (Footer bar) displays 'Version: XYZ-CRT-2024-V1.37 | Status: Started' and 'Users accessing: LH | Data synchronized | Online'. The main content area is divided into a 'Navigation tree' on the left and a data table on the right. The 'Navigation tree' shows a hierarchy of sectors, with '1.A.1.b. Petroleum refining' selected. The data table, titled '1.A.1.b. Petroleum refining > Liquid fuels', has columns for 'Description', '1991', '1992', and '1993'. The table contains 15 rows of data, including 'Fuel consumption', 'Calorific value', 'Method', 'Emission factor information', and 'Emissions'. The 'Sub-header bar' is located above the table, and the 'Footer bar' is located below the table.

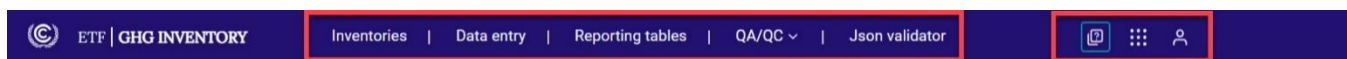
...	Description	1991	1992	1993
01	Fuel consumption			
02	Calorific value			
03	Method			
04	CO ₂			
05	CH ₄			
06	N ₂ O			
07	Emission factor information			
08	CO ₂			
09	CH ₄			
10	N ₂ O			
11	Emissions			
12	CO ₂ kt			
13	CH ₄ kt			
14	N ₂ O kt			
15	Amount captured			

2.1 Header Bar

The header bar provides access to the main functions available in the reporting tool. From the header bar, the user may:

1. Select the tabs for **Inventories**, **Data entry**, **Reporting tables**, **QA/QC** and **Json validator**.
2. Access the [ETF reporting tools help page](#) by selecting the boxes with a question mark.
3. Switch to the other reporting tables (**ETF Progress Reporting Tool** and **ETF Support Reporting Tool**) provided the user has access to those tools, by selecting the icon with nine dots.
4. Log out by selecting the user icon.

This section introduces the layout of each main page (Inventories, Data entry, Reporting tables, QA/QC and Json validator¹) below, including the functions that can be carried out there. More detailed information on how to carry out the various functions can be found in subsequent chapters.



2.1.1 Inventories

In the **Inventories** page, the user can access all versions of inventories created within their Party. From this page, the user can perform the following actions:

Version: XYZ-CRT-2024-V1.37 | Status: Started | Users accessing: LH | Online

Inventories
The list below contains all inventory versions and their status.

Year: [Dropdown] Status: [Dropdown] Import .json file

Year	Version name	Status	Version	Created date	Updated	Flag for NDC
2027	XYZ-CRT-2027-V0.88	Started	DEFAULT	2024-05-17	2024-05-17	[Action Menu] [Open]
2027	XYZ-CRT-2027-V0.87	Started	-	2024-05-17	2024-05-17	[Action Menu] [Open]

1. To create a new blank version of the GHG inventory, select + **Create version** button b. For more information about **Create version**, see section [3.1 Create Blank Inventory](#).
2. **The list of existing inventories** is displayed with the following attributes:
 - a. **Year** – Refers to the submission year for the GHG inventory. The last version accessed by the user will always appear at the top of the list. The latest accessed inventory version will have a blue border and be preceded by a blue dot.
 - b. **Version name** – Is a unique name for an inventory version. E.g. XYZ-CRT-2027-V0.88 where XYZ refers to the three letter ISO Code for the Party name, CRT refers to the type of submission, 2027 refers to the submission year and V0.88 refers to the unique version number of the inventory.

¹ Note that this function will be moved from the Header Bar and integrated into the JSON import process in future releases, and thus is generally removed from images in this manual. To learn about this important functionality, see section [2.1.5 Json](#) .

- c. **Status** – Provides the status of an inventory version:
 - i. **Initiated**: The inventory has been created but the version settings have not been completed yet to allow for data entry. Data entry cannot be done in an initiated version.
 - ii. **Started**: The inventory is ready for data entry and the user may edit/enter data based on the user rights that they have for each sector.
Subsequent steps of the workflow, including quality checks and the submission workflow, are still under development and will be implemented in future releases.
 - d. **Version** –A version marked as **Default** is the common working version that the Party currently plans to use for future submission to the UNFCCC. Only one inventory version in a submission year can be labeled as the Default version.
 - e. **Created date** – The date on which the inventory was created.
 - f. **Updated** – The date the inventory was last updated.
 - g. **Flag for NDC** – Indicates if the inventory version is available for use or used in the **ETF Progress Reporting Tool**. If the flag is filled in dark blue, this indicates that this is the GHG inventory version being used as the basis for the projections in the **ETF Progress Reporting Tool**.
3. The list of existing inventory versions can be filtered by year or status and can be sorted by version name, created date or updated.
 4. For each inventory (i.e. row), the user may click **Open** to work on the selected version. Alternatively, the user may click on the gear icon to **edit the version settings** (see section [3.1.2.3 Edit Version Settings](#)) or to **Create a copy** of the inventory.
 5. The user may also import a .json file to an inventory version (see section [4.2.3.2 Import of a .json File](#)).

2.1.2 Data Entry

In the data entry tab, the user can enter/edit the data for the GHG inventory. The data entry page is organized in two sections: **Navigation tree** and the **Data entry grids**.

The screenshot displays the GHG Inventory software interface. On the left, the 'Navigation tree' is visible, with the 'Options' button highlighted. The tree structure includes categories like '1.A(b). CO₂ from fuel combustion activities', '2. Industrial processes and product use', and '3. Agriculture'. Under '3. Agriculture', '3.A.2. Sheep' is expanded to show '3.A.2.a. Other (please specify)', which is further expanded to 'All sheep [IPCC Software 3.A.1.c]'. On the right, the 'Data Entry Grid' for '3.A.2.a. Other (please specify) > All sheep [IPCC Software 3.A.1.c]' is shown. The grid has columns for 'Description', 'Unit', and years '1990', '1991', '1992', and '1993'. The grid contains 15 rows of data entry fields, including 'Average gross energy intake', 'Average CH₄ conversion rate', 'Method', 'Emission factor information', 'Emissions', 'Implied emission factor', and 'Additional information'.

The **Navigation tree** reflects the sectors and the source and sink categories in the CRT that are required for reporting pursuant to the MPGs. The user may customize the navigation tree by adding/ removing country specific categories/fuels/gases. The relationship among these categories, fuels and gases is one of **grandparent nodes**, **parent nodes** and **child nodes**. Grandparent nodes (e.g. categories) may contain one or more parent nodes (e.g. sub-categories) that may contain one or more child nodes (e.g. fuels, gases) can be opened by selecting the chevron. In the figure below “all sheep” is a child node of the parent node 3.A.2.a Other (please specify). The grandparent node is 3.A.2 Sheep.

Further options to import and export data using .xlsx and .json are available to the user by clicking the **Options** button in the navigation tree.

This screenshot shows the 'Navigation tree' with the 'Options' button highlighted. The options menu is open, displaying the following actions:

- Edit navigation tree
- Import .xlsx file
- Export all data entry grids as .xlsx
- Export all data entry grids as .json

For more information on how to edit the navigation tree to best reflect country-specific circumstances, see section [4.1 Customizing Navigation Tree](#). For more information on the **import and export of data entry grids**, see sections [4.2.2 Export and Import with Excel](#) and [4.2.3 Export and Import of a .json File](#).

Selecting a category in the navigation tree provides the user with the corresponding **data entry grid** for that category, which will appear in the right-hand side of the page. Some items in the navigation tree do not have a corresponding **data entry grid**, in which case a message indicating this will be displayed in the right-hand side of the page.

The data entry grids are the primary workspace where the user may enter GHG inventory information for the time series selected by the user for reporting. The data entry grid(s) for each category will depend on the specific information required for reporting in that category by the corresponding table of the CRT. Generally, for each category the user is requested to input AD, the type of method and EF used, emissions or removals and any category-specific documentation. The reporting tool calculates the IEF, and the aggregation of GHG emissions and removals by gas (in mass and tCO₂ eq) by category, sector and for the national total.

In addition to entering data, there are further functions available in the data entry grid:

- **Export** the data entry grid in .xlsx format to enter/edit data (see section [4.2.2.1 Export to Excel](#)).
- Under the **Comments** feature add User, Party or Official Comments (see section [4.4.2 Cell Comments](#)) and notation key explanations, as applicable (see section [4.4.3 Notation Key Explanations](#)).
- Review **Footnotes** relevant for the specific category or table of the CRT (see section [4.5 Footnotes](#)).
- Enter information in the **Documentation box**, for example where further information may be found in the National Inventory Document to explain the reporting (see section [4.4.1 Documentation Box](#)).

The user can customize the view of the navigation tree and data entry grid to allow more space for data entry:

- **Hide/unhide navigation tree:** The user can hide the navigation tree to allow viewing of more years of the time series in the data entry grid. Click on the arrow sign next to the Navigation tree to hide/unhide the navigation tree. When the navigation tree is hidden, the path of the node is displayed above the data entry grid.

ETF | GHG INVENTORY | Inventories | **Data entry** | Reporting tables | QA/QC

Version: XYZ-CRT-2024-V1.37 | Status: Started | Users accessing: LH | Data synchronized | Online

Sectors/Totals > 1. Energy > 1.A. Fuel combustion activities (sectoral approach) > 1.A.1. Energy industries > 1.A.1.b. Petroleum refining > Liquid fuels

1.A.1.b. Petroleum refining > Liquid fuels

Expand all | Show/hide years | Export

	Description	Unit	1990	1991	1992	1993	1994	1995	1996	1997
01	Fuel consumption	TJ								

- **Show/hide years:** To show only specific years, the user may select **Show/hide years** in the right-hand side of the data entry grid and select only those years of interest. If the user wants to report certain years only by applying the flexibility provisions, then the user should do so in the version setting for flexibility provisions.
- **Expand all:** Selecting the **Expand all** toggle will make visible all rows of the data entry grids for the category, including those requiring direct entry (white cells) and those that are calculated (blue or green cells.). If unchecked, only the types of information (i.e. descriptions) are visible, and the user may open a single description for data entry (e.g. Emissions). This function enables the user to focus attention on specific data entry fields.

ETF | GHG INVENTORY | Inventories | **Data entry** | Reporting tables | QA/QC

Version: XYZ-CRT-2024-V1.37 | Status: Started | Users accessing: LH | Data synchronized | Online

Navigation tree

- > 3.J. Other (please specify) +
- > 4. Land use, land-use change and forestry
- 5. Waste
 - 5.A. Solid waste disposal
 - 5.A.1. Managed waste disposal sites
 - 5.A.1.a. Anaerobic** +
 - 5.A.1.b. Semi-aerobic +
 - 5.A.1.c. Active-aeration +
 - 5.A.2. Unmanaged waste disposal sites +
 - 5.A.3. Uncategorized waste disposal sites +
 - > 5.B. Biological treatment of solid waste
 - > 5.C. Incineration and open burning of waste
 - > 5.D. Wastewater treatment and discharge
 - > 5.E. Other (please specify) +
 - > 5.F. Memo items
- > 6. Other (please specify) +
- > Documentation box (Cross-cutting tables)

5.A.1.a. Anaerobic^{5, 6, 7, 8, 9}

Expand all | Show/hide years | Export

	Description	Unit	1990	1991	1992	1993
01	Annual waste at the SWDS	kt				
02	MCF					
03	Method					
04	CH ₄		NA			
05	Emission factor information					
06	CH ₄		NA			
07	Emissions					
08	CH ₄					
09	Emissions ³	kt				
10	Amount of CH ₄ flare...	kt				
11	Amount of CH ₄ for e...	kt				
12	Implied emission factor					
13	CH ₄ ²	t/t				
14	Documentation box					

Comments | Footnotes

Application version: 6934db2d23f8394785f8b07d11472b3 | Metadata version: 1.26.3 | Last synchronized: 2024-05-29 08:14 (UTC-4)

To learn more about entering GHG inventory data for the entire time series see section [4.2 Data Entry](#).

2.1.3 Reporting Tables

After entering data in the data entry grids, the user may generate the reporting tables of the CRT in Excel format. The reporting tables tab allows the user to select and download the reporting tables for the active inventory version. The interface allows the user to select the following criteria indicating which reporting tables will be generated:

- Year(s)
- Sector(s) (including cross-cutting tables)
- Specific table(s) to be generated

In this page, the user may download one or more reporting tables for one or more years in .xlsx format, presenting the years in ascending or descending order. The user will be able to download the files individually or as a single zip file containing the years selected.

Refer to section 4.3 [Generate Common Reporting Tables](#) for further information on the generation of reporting tables.

The screenshot displays the 'Reporting tables' interface. At the top, the navigation bar includes 'ETF | GHG INVENTORY', 'Inventories', 'Data entry', 'Reporting tables', and 'QA/QC'. The main content area is titled 'Common reporting tables' and contains a 'Select by' section with three dropdown menus: 'Years' (1990, 1991), 'Sectors, summary and cross-cutting tables' (Energy, Industrial processes and product use, Agriculture, Land use, land-use change and forestry, Waste), and 'Tables' (Table1, Table1.A(a)s1, Table1.A(a)s2, Table1.A(a)s3, Table1....). Below these are various table selection buttons like '1990', '1991', 'Energy', 'Industrial processes and product use', 'Agriculture', 'Land use, land-use change and forestry', 'Waste', 'Summary tables', 'Cross-cutting tables', 'Table1', 'Table1.A(a)s1', 'Table1.A(a)s2', 'Table1.A(a)s3', 'Table1.A(a)s4', 'Table1.A(b)', 'Table1.A(c)', 'Table1.A(d)', 'Table1.B.1', 'Table1.B.2', 'Table1.C', 'Table1.D', and 'Table2(l)'. A 'Show more' link is also present. On the left, a sidebar shows 'XYZ-CRT-2024-V1.37' with '2 selected years' and a 'Download as .zip' button. The main results area shows '2 Results showing' with two entries: 'XYZ-CRT-2024-V1.37-1990' and 'XYZ-CRT-2024-V1.37-1991'. A 'Download as .xlsx' button is visible on the right, and a dropdown menu for 'Years' is open, showing 'Descending' and 'Ascending' options.

2.1.4 QA/QC

The user can select from the dropdown menu, **Key Category Analysis**, to view the results of the calculations for the key category analysis. Refer to [chapter 6](#) for further information.

2.1.5 Json Validator

Before uploading a .json file to the reporting tool, the file must be validated first. In the **Json validator** page, the file acquires a unique signature after validation of the .json file enabling the import process. To understand how to use the Json validator, refer to section [3.2 Upload a File](#).



2.2 Sub-header Bar

The sub-header bar is immediately below the header bar, and visible in all views when using the reporting tool.



The sub-header bar provides the following information:

- **Version** – This is the unique name of the version you are working on (ISO code, Tool, Submission year, version number).
- **Status** – State of the inventory (i.e., Initiated, Started, QA/QC, Approved, Rejected, Submitted, Published).
- **Default** – When present, it indicates that the current version is the common version that all users within a Party are working on and that the Party currently plans to use for future submission. If the current version is not the default, the icon **DEFAULT** will not be displayed.
- **Users accessing** – Indicates, through user initials, other users from the Party working in the inventory at the same time.
- **Data synchronization status** – Provides the synchronization status:
 - o **Data synchronized.** At this status, data have been saved and the user can generate reporting tables or close the system without data loss.
 - o **Updating changes.** At this status, the latest input are being saved to the database. If the user exits the data entry grids when the system is updating changes, e.g. by attempting to generate reporting tables, the latest data input may be lost. The user can see the last time data were synchronized on the left-hand side of the bottom-most bar, visible on all pages.
 - o **Data sync paused.** Typically, data are synchronized in real time. The user will see this alert when working offline, or after import of either .json or .xlsx file. Upon returning online, or after the import, the system will be in draft mode until the user selects save (see sections [4.2.2 Export and Import with Excel](#) and [4.2.3 Export and Import of a .json File](#)).

- **Online/Offline** – Indication if the user is working in Online or Offline mode. The user may work offline on an inventory after it has been created and is in “**Started**” status. While working offline, the user may enter data manually and through import and export functions (.xlsx and .json). Progress is saved locally on the user’s browser and will synchronize the next time the user is connected to the internet. In offline mode, the user is not able to view data entered by other users within the Party or create a new version.



2.3 Footer Bar

The footer bar provides the user technical information on the application and metadata version. The user can also see here the last time data were synchronized online. This bar is visible on all pages. It is helpful to note the application and metadata version when contacting UNFCCC with questions or issues related to the tool.

Application version: 6934db2d23ff8394785ffb07d11472b3 | Metadata version: 1.26.3 | Last synchronized: 2024-05-29 08:39 (UTC-4)



III. Getting Started

To begin working on a GHG inventory the user must first **create a version**. There are three options to create a **new** version of a GHG inventory (Table 2).

Table 2. Options for creating an inventory version

Create a blank inventory	When this option is selected the user will be presented with blank data entry grids from which the GHG inventory is prepared.
Select an existing inventory	This option allows the user to create a new GHG Inventory for a different submission year, building on an existing GHG inventory. This option is currently greyed out as it is still under development.
Upload a file	This option allows the user to create the inventory by uploading a .json file, including the .json file from the IPCC Inventory Software or from the national system. The user can also upload a .json file into an existing blank version. To learn how to prepare a .json file that can be imported by the tool, see section 4.2.3 Export and Import of a .json .



3.1 Create Blank Inventory

This selection may be most relevant when preparing a first GHG inventory. After navigating through the prompts, the user will be presented with blank data entry grids to prepare the GHG inventory. Use of this option still allows the user to import data through .xlsx or upload data to the newly created blank inventory through .json upload.

To create a blank GHG inventory:

The user may create a blank inventory upon first entering the **reporting tool**

- 1. Select** the GHG Inventory App from the UNFCCC My Apps landing page (<https://myapps.unfccc.int>).

Please select an option to start working on an inventory

2. Select **Start next to Create blank inventory**

The image shows three light blue rounded rectangular buttons stacked vertically. Each button has a title, a short instruction, and a 'Start' button. The first button, 'Create blank inventory', has a blue 'Start' button highlighted with a red box. The second button, 'Select an existing inventory', has a grey 'Start' button. The third button, 'Upload a file', has a blue 'Start' button.

- Create blank inventory**
Please select this option to create a new blank inventory and start working on it.
- Select an existing inventory**
Please select this option if you would like to make a copy of an existing version with a different submission year. (Under development)
- Upload a file**
Please select this option if you would like to create a new version by uploading a JSON file.

If the user is already in another tab of the header bar (e.g. Data entry), then:

1. Select **Inventories** in the **header bar**.
2. Select **+ Create Version**.

The image is a screenshot of a web application interface. At the top is a dark blue header bar with the text 'ETF | GHG INVENTORY' on the left and navigation links 'Inventories', 'Data entry', 'Reporting tables', and 'QA/QC' in the center. The 'Inventories' link is highlighted with a red box. On the right of the header bar are icons for help, a grid, and a user profile. Below the header bar, the main content area has a light grey background. It features the title 'Inventories' and a subtitle 'The list below contains all inventory versions and their status.' On the right side of this content area, there is a blue button with a plus sign and the text '+ Create Version', which is highlighted with a red box.

3. The user is then presented with the option to **Create blank inventory**.

3.1.1 Initial Settings

Once the version is created, the user must specify the submission year and the flag for the default version.

- **Select the submission year** from the dropdown list. Note that the Submission year is the year in which the inventory is submitted. This will be different than the inventory years covered by that submission.

Please select year and version type to start working on a version

Select the submission year

The submission year will be reflected in the inventory name.
You may edit the submission year later

Year ^

2024

2025

2026

2027

this the default working version for all users within your Party. You
iter.

Cancel Create inventory >

- **Default version.** A default version is marked by © in the list of inventories (see section 2.2 Sub-header Bar).

A newly created inventory is not automatically a default version. To make the newly created inventory the default version, select the toggle next to **Default version** so that a check mark is displayed. The UNFCCC logo will become dark blue.

Set as default version

Please select this option to make this the default working version for all users within your Party. You may change the default version later.

Default version ©

Cancel Create inventory >

3.1.2 Version Settings

Version settings ensure that the CRT reflects the national circumstances and inventory reporting preferences selected by a Party. The user may also change the version settings of an existing inventory after data entry started.

The user shall select version settings related to application of flexibility provisions and for reporting of sector-related GHG emissions and removals. See section 2.1 Header to review how to later change the version settings for a particular inventory.

3.1.2.1 Flexibility Provisions

This version setting is mandatory and a response is required before proceeding.

Parties should select **Yes** if they elect to apply the flexibility provisions in light of their capacities and **No** if they do not wish to apply the flexibility provisions.

If Yes is selected, the user is prompted to select the flexibility provision(s) they wish to apply. The user indicates their intention to use the flexibility provisions included Table 3. Version Settings Related to Use of Flexibility Provisions Table 3 by selecting the toggle so that the checkmark is displayed.

The user will only be able to use the notation key “FX” in the data entry grids when flexibility provisions are applied.

For each flexibility provision selected, the user will be asked to complete the information, in accordance with paragraph 6 of the MPGs. Information provided will be reflected in the reporting table “Flex_Summary”.

MPG flexibility provision	Para. 58 of decision 18/CMA.1 (Last year in time series)
Year	2021
Sector	All
Category	All
Gas	All
Description of the application of flexibility	<input type="text" value="Add Text"/>
Clarification of capacity constraint	<input type="text" value="Add Text"/>
Timeframe for improvement	<input type="text" value="Add Text"/>
Progress made in addressing areas of improvement	<input type="text" value="Add Text"/>

Table 3. Version Settings Related to Use of Flexibility Provisions

Settings	Explanation if Flexibility is Applied
Para 58 (Last year in time series)	Sets the last reporting year as the submission year minus 3 in the annual time series.
Para 57 (Annual time series)	Allows the user to set the reporting years in the annual time series from the dropdown, including the NDC reference year/period, if applicable. Note that this flexibility may only be applied between 1990-2019, and as such the time series ends in 2019. All Parties are required to report an annual time series from 2020 onwards.
Para 48 (Reporting F-gases)	Allows the user to select the F-gas(es) (HFCs, PFCs, SF ₆ and NF ₃) for which the notation key FX will be used for reporting.
Para 35 (QC Procedure)	Allows the user to indicate if they have applied this flexibility provision and to provide the corresponding information in the Flex_Summary table.
Para 34 (QA/QC Plan)	
Para 32 (Insignificance threshold)	Enables the user to use “FX” in the data entry grids for insignificant categories.
Para 29 (Uncertainty Assessment)	Allows the user to indicate if they have applied this flexibility provision and to provide the corresponding information in the Flex_Summary table.
Para 25 (Key category analysis)	Allows the user to indicate a threshold for calculation of the key category analysis in the ETF GHG Inventory Reporting Tool between 85% and 95%.

Once the desired settings for all flexibility provisions have been entered, select **Next**.

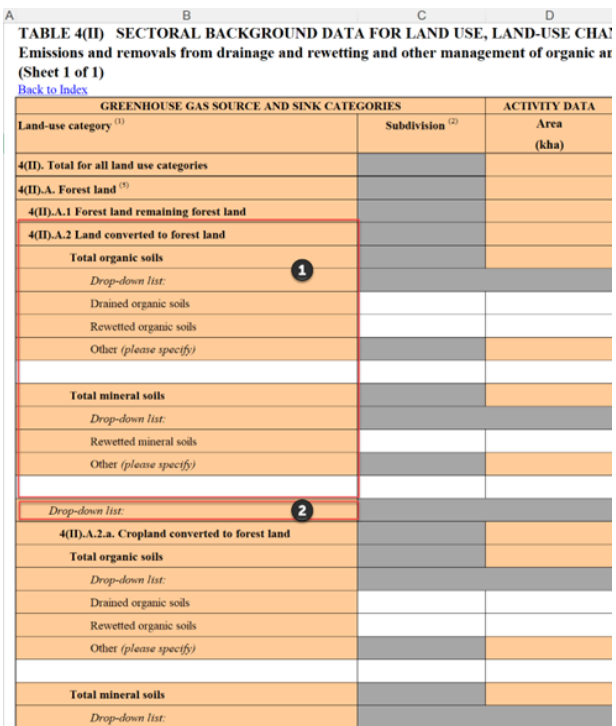
3.1.2.2 Sector-related Version Settings

The user will be prompted to elect settings related to reporting of sector-related GHG emissions and removals (Table 4). Note that version settings related to the energy and IPPU sectors have been implemented to facilitate data entry. Regardless of the selection made here, the user may modify individual cells in the data entry grids.

Once information has been entered for the version settings for each sector, select **Next**.

Table 4. Sector-related Version Settings

Settings	Explanation if Setting is Selected
Energy sector (optional)	
Specify the calorific value for fuels in category 1.A	<p>Select if the user wishes to auto-fill the country’s choice for reporting of calorific values (either NCV or GCV) for all fuels in sub-categories of 1.A. Use of this feature will simplify data entry and may avoid blank cells in the generated reporting tables should the user forget to make this selection in an individual data entry grid.</p> <p>If this setting is not activated, the user must enter the calorific value separately in all applicable data entry grids.</p>
Specify fuel(s) that are not occurring (“NO”)	<p>Select if the user wishes to auto-fill the notation key “NO” in the data entry grids for the selected fuel(s) in all sub-categories of 1.A. Use of this feature will simplify data entry and may avoid blank cells in the generated reporting tables should the user forget to report information regarding fuels you do not have in individual data entry grids.</p> <p>If this setting is not activated, or the user selects Normal data entry, the user must enter values or notation keys for all fuels separately in the data entry grids.</p>
IPPU sector (optional)	
F-Gas(es) that are not occurring (“NO”)	<p>Select if the user wishes to auto-fill the notation key “NO” in the data entry grids for the selected species of F-gas(es). Use of this feature will simplify data entry and may avoid blank cells in the generated reporting tables (e.g. Table 2(II)) should the user forget to report information for a particular F-gas.</p> <p>If this setting is not activated, or the user selects Normal data entry, the user must manually enter the gas in the relevant data entry grid(s) for reporting.</p>
Agriculture (mandatory)	
Cattle categorization	<p>Select the option to be used by the Party for reporting of cattle categorization. Select Option A to show “Dairy cattle” and “Non-dairy cattle” in the data entry grids. Select Option B to show “Mature dairy cattle,” “Other mature cattle,” “Growing cattle,” and “Other (please specify)”.</p>

LULUCF (mandatory)	
Approach for HWP	Specify one or more of the approaches used (Approach A, Approach B and Approach C) for HWP reporting; and, where multiple approaches are selected, which one is to be used in the national total.
Additional years for HWP AD	Select additional year(s) for reporting HWP activity data. Additional years s will be populated in Table 4.Gs2.
Reporting information in Table4(II)	<p>Select whether information in Table 4(II) will be reported at (1) the level of “land converted to...” (e.g. land converted to settlements) or (2) “specific land converted to...” (e.g. forest land converted to settlements”.</p> 

Once all sector-related settings have been selected, select **Go to data entry**.

3.1.2.3 Edit Version Settings

A user may edit version settings for an existing inventory that is in “Initiated” or “Started” status. Some version settings are available to experts assigned to a sector. The ETF Focal Point and the Inventory Focal Point, and their respective alternates, have access to all version settings.

To edit version settings:

1. Go to **Inventories** on the **Header bar**.
2. Select the inventory for which version settings are to be edited by clicking on the gear icon in the row.

The screenshot shows the 'Inventories' page in the GHG INVENTORY system. The header bar includes the logo, 'ETF | GHG INVENTORY', and the 'Inventories' tab is highlighted. Below the header, there's a navigation bar with 'Data entry', 'Reporting tables', and 'QA/QC'. The main content area shows the 'Inventories' title and a description: 'The list below contains all inventory versions and their status.' There's a '+ Create Version' button. Below this, there are filters for 'Year' and 'Status', and an 'Import .json file' button. A table lists inventory versions with columns: Year, Version name, Status, Version, Created date, Updated, and Flag for NDC. The first row is for '2024' with version 'XYZ-CRT-2024-V1.43', status 'Started', and version 'DEFAULT'. A context menu is open over the gear icon in the 'Status' column, showing options for 'Edit Version settings' and 'Create a copy'.

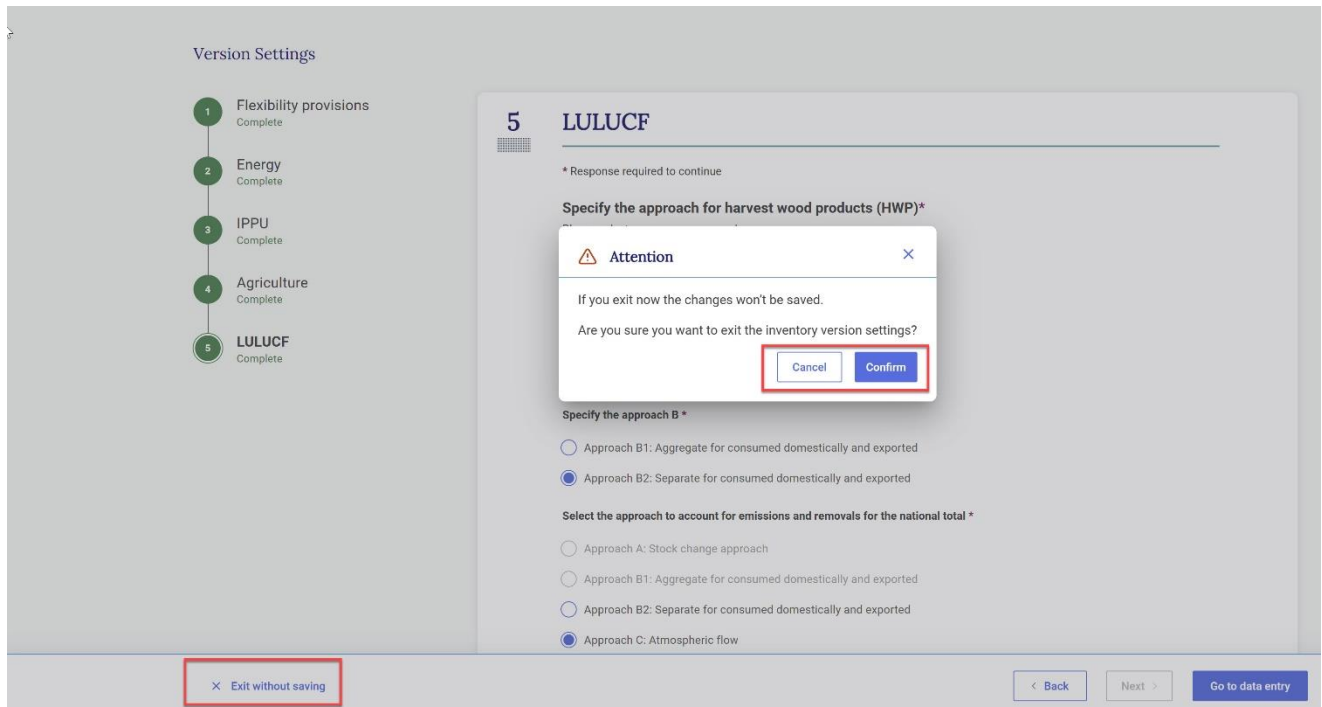
3. Make the desired changes to the version settings and select **Go to data entry**.
4. A pop-up box notifying the user of the changes made to version settings will appear requesting the user to confirm the changes made. Depending on the changes made, loss of data may occur, so the user must carefully consider the information presented before selecting **Apply and go to data entry**.

The user may download and view the log file to see a list of all changes that will be applied as a result of the change to the version settings. The user may also create a copy of the current version of the inventory prior to confirming the change in version settings. To do this, toggle **Create a copy of current version**, so the checkmark is displayed.

The screenshot shows an 'Attention' pop-up box. The box has a title bar with an attention icon and the word 'Attention'. The main content area contains the following text: 'You have made the following changes to version settings:'. Below this, there are two sections: '1- Flexibility provisions:' with a bullet point 'Year: 2021', and '5- LULUCF:' with a bullet point 'Approach C: Atmospheric flow approach: Approach C'. A 'Warning' section follows, stating: 'Warning: These changes may result in data loss. You can create a copy of your current version and its settings before applying the changes. Download log file for details: [Log file](#)'. Below the warning, it asks: 'Are you sure you want to apply these changes and go to data entry?'. At the bottom, there is a toggle switch for 'Create a copy of current version' which is currently turned off. To the right of the toggle are two buttons: 'Cancel' and 'Apply and go to data entry'.

5. If the user does not wish to save the new version settings, they may select **Cancel**.

6. If at any point in the process the user wishes to exit the version settings, he/she may do so by selecting **Exit without saving** in the lower-left hand side of the page. A pop-up will appear asking the user to confirm they wish to exit the settings without saving any changes made.



3.2 Upload a File

The user may create a GHG inventory from an upload of a validated .json file, including the .json created from the IPCC Inventory Software. After navigating through the prompts, the user is presented with data entry grids that contain the information from the uploaded json file.

After creating the inventory, the user can enter/edit data in the data entry grids (see section [4.2 Data Entry](#)), or can also upload an additional json file(s), noting that where a subsequent .json file contains information for the same cells already completed in the data entry grid, the new .json file will overwrite the existing data (**Error! Reference source not found.**) with the specific data in the new .json file.

To learn how to import a .json file into an existing inventory, see section [4.2.3.2 Import of a .json File](#).

The user may generate a .json file from the IPCC Inventory Software containing **information for all sectors, a single sector, selected tables of the CRT, or even a single category**. The user can create a new GHG Inventory using Upload a file in the reporting tool with any of these IPCC .json files. The data in the newly created inventory will be consistent with the contents of the .json file.

To note:

- Creating an inventory using a .json file for all sectors, will import all sectors into the reporting tool. If the user subsequently imports a new .json file into that same inventory containing only the agriculture sector, it is only the agriculture sector that will be overwritten.
- The user can decide to upload a .json file for one sector (energy) and later, in a second step import a second, different, sector (e.g. IPPU). In this case, no data will be overwritten and the inventory will contain the energy and IPPU sectors.
- The user may also also import a gas from a single category.

For more information on how to import a .json file into an existing inventory, see section [4.2.3.2 Import of a .json File](#).

To create a GHG inventory from upload of a .json file:

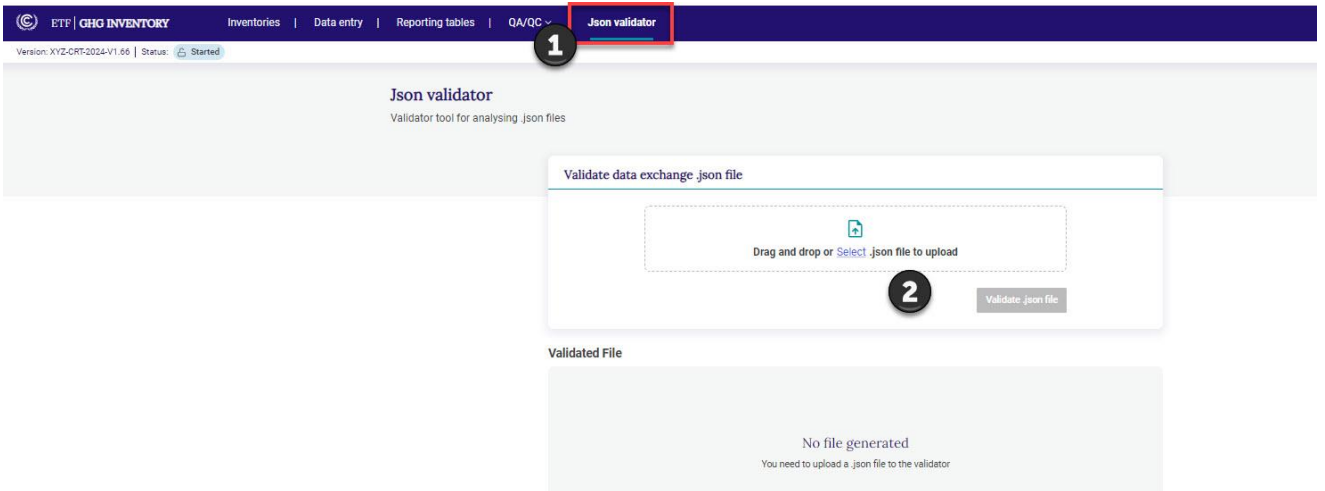
1. Ensure the .json file intended for upload has been validated

It is important that any .json file used to create a GHG Inventory meets specific requirements for upload, including structure and Party name. For technical information on the file structure, refer to <https://unfccc.int/etf-reporting-tools-help>.

To ensure that the .json file meets the proper specifications and can be uploaded to the reporting tool, the user must first validate the .json file using the json validator and acquire an electronic signature.

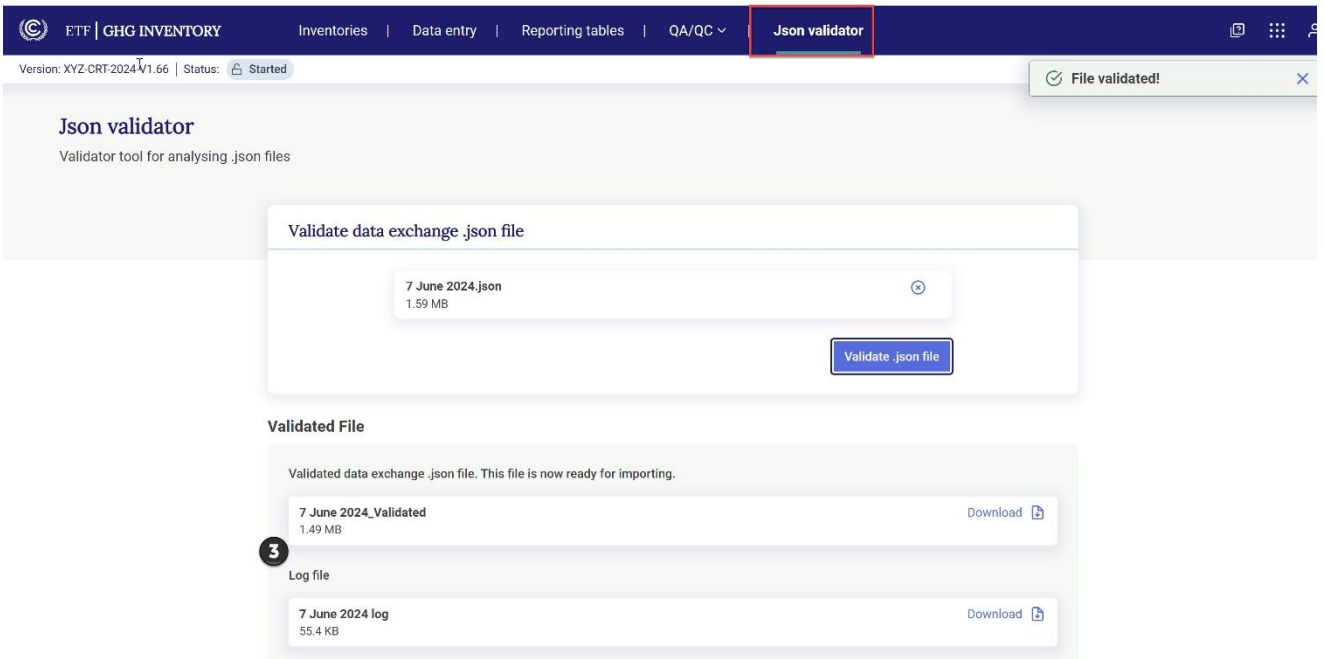
To validate the .json file:

1. Select **Json validator** from the **Header Bar**.
2. Drag and drop, or upload the .json file and select **Validate .json file**.



3. Upon successful validation two files will appear for download: **the validated data exchange .json file, which the user must use for subsequent upload of data**, as well as a log file indicating any issues identified during validation. Any issue identified here will not prevent the user from uploading the .json file, but should be consulted to ensure the user understands any issues for data import.

Note that a validated .json file contains an electronic signature. The reporting tool can only read .json files containing this electronic signature.



2. Select **Start** next to **Upload a file**

Please select an option to start working on an inventory

Create blank inventory
Please select this option to create a new blank inventory and start working on it. Start

Select an existing inventory
Please select this option if you would like to make a copy of an existing version with a different submission year. (Under development) Start

Upload a file
Please select this option if you would like to create a new version by uploading a JSON file. Start

3. Upload the validated .json file
4. The user will then be asked to **Select the submission year** and indicate if the version is to be **Set as a default version** (see section 3.1.1 Initial Settings) and then **Create inventory**.

At this stage, the reporting tool will run an additional check of the .json file for compatibility with system requirements. If there are additional issues identified with the contents of the .json for specific data points, the user will receive the following message:

Please upload .json file and select submission year to create an inventory version

1. Selected the .json file to upload
First select the file you want to upload so that we can analyze if it meets the necessary requirements.

Drag and drop or [Select a .json file](#)

2. Select the submission year
The submission year will be reflected in the inventory name. You may edit the submission year later.

Year

3. Set as default version
Please select this option to make this the default working version for all users within your Party. You may change the default version later.

Default version

Cancel Create inventory >

Attention

The .json file you are uploading has some errors although you can go ahead and import the data. You can check the log file for more details.
[Link to log file](#)

Do you want to continue or a upload a new file?

Cancel Upload a new file Continue

Select [Link to log file](#) to review the errors identified (see [Table 8](#) for possible errors). After reviewing the log file, correct any errors, as necessary and **Upload a new file**. Otherwise, select **Continue** to finish creating the inventory using the existing .json file.

5. The user will then be asked to **set version settings** (see section [3.1.2 Version Settings](#)).

IV. Preparing a GHG Inventory

This section outlines the key steps a user will take to enter the GHG inventory into the reporting tool.

To start entering data for a GHG inventory, the user can open an existing version under **Inventories** in the **Header** bar (see section 2.1.1 [Inventories](#)).

4.1 Customizing Navigation Tree

The **Navigation tree** is the main interface for the user to open data entry grids for specific categories, fuels and gases and enter GHG inventory information. The navigation tree contains all categories, fuels and gases required for reporting according to the agreed CRT. The user can customize the navigation tree to report the country-specific categories at a more aggregated or disaggregated level, as allowed by the agreed CRT.

As introduced in section 2.1.2 [Data Entry](#), the user may go to **the data entry** tab from the **header bar** to access the Navigation tree

The screenshot displays the software interface for GHG inventory reporting. At the top, a dark blue header bar contains the logo and text 'ETF | GHG INVENTORY', followed by navigation tabs: 'Inventories', 'Data entry' (highlighted with a red box and a circled '1'), 'Reporting tables', and 'QA/QC'. Below the header, the main content area is split. On the left, a 'Navigation tree' panel is shown with a red border, containing a hierarchical list of categories: 'Sectors/Totals', '1. Energy', '1.A. Fuel combustion activities (sectoral approach)', '1.A.1. Energy industries', '1.A.1.a. Public electricity and heat production', '1.A.1.b. Petroleum refining' (highlighted with a blue background and a circled '2'), 'Liquid fuels', 'Solid fuels', 'Gaseous fuels', 'Other fossil fuels', 'Peat', 'Biomass', and '1.A.1.c. Manufacture of solid fuels and other energy industries'. On the right, a large, light blue area contains a circular icon with a document and arrow, and the text 'Please select data grid from the navigation tree'.

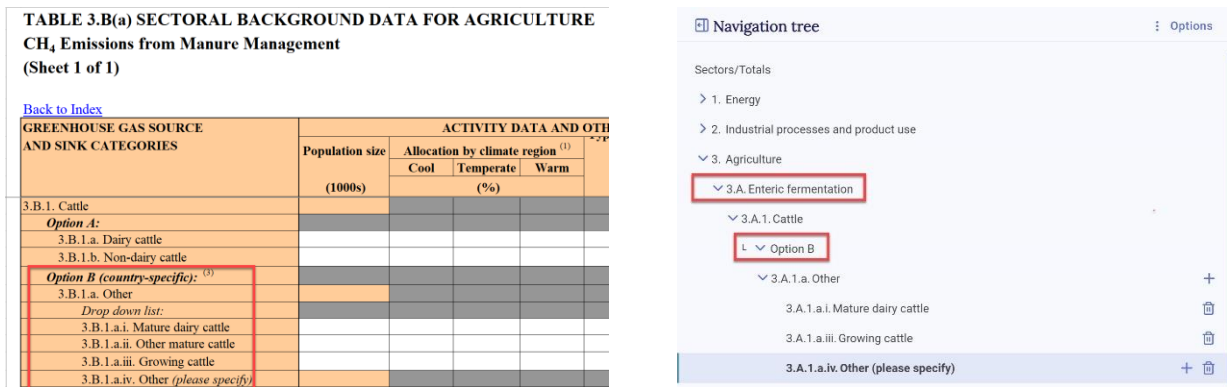
4.1.1 Overview of the Navigation Tree

The structure of the navigation tree when opening the tool will reflect choices made in the version settings (see section 3.1.2 Version Settings), specifically:

- Whether you chose Option A or Option B for cattle categorization
- The level of disaggregation you intend to report for category 4(II)
- The approach(s) selected for reporting of HWP





Figure 2 illustrates how reporting of cattle in CRT 3.B.(a) reflects the choice of Option B for cattle (designated in the version settings).

Figure 2. How the CRT Categories Translate into the Navigation Tree





Before learning how to add (or modify) categories, fuels and gases to the Navigation tree to reflect country-specific circumstances, it is necessary to understand the symbols contained in the Navigation tree (Table 5). **Error! Reference source not found.**

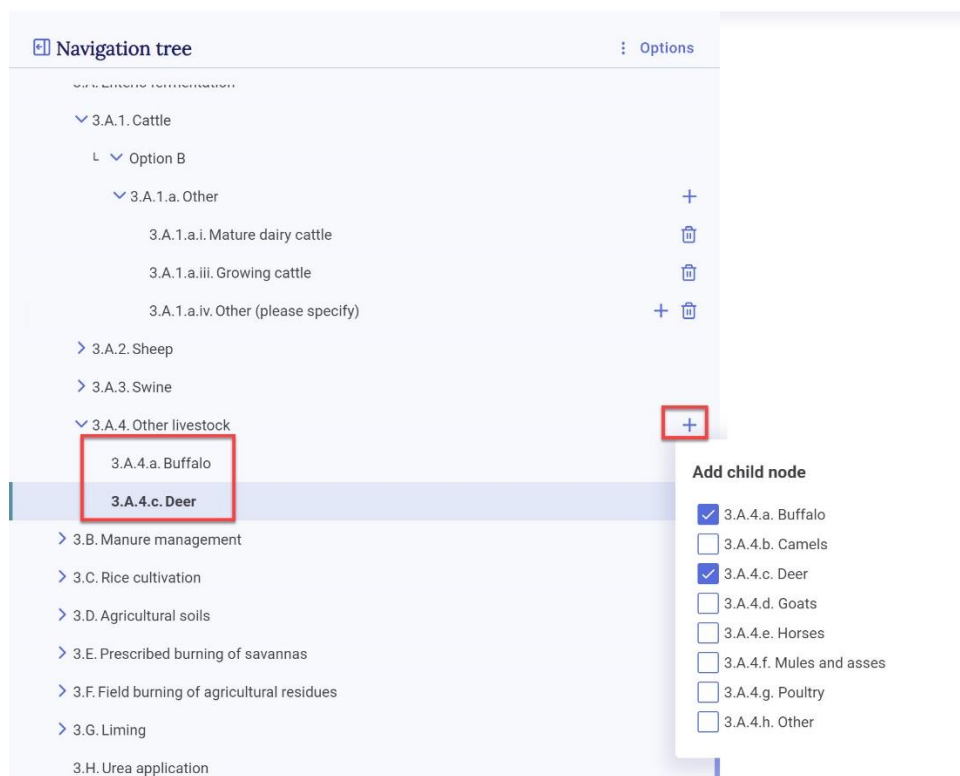
Table 5. Symbols in the Navigation Tree

	<p>The chevron sign means that the element has one or more sub-elements available for data entry. Click on the chevron sign to expand or collapse the elements in the navigation tree.</p>
	<p>The plus sign is used to customize the navigation tree in three cases:</p> <ol style="list-style-type: none"> 1. View categories where there are drop-down lists in the agreed CRT (e.g. 1.A.1.c). 2. Enable user to add categories where CRT allows user to “please specify” other categories (e.g. category 3.A.2.a). 3. Add F-gases in IPPU.
	<p>The trash bin icon is used to delete an element.</p>
	<p>The pencil icon is used to edit the title of an element, for example a country-specific category added under “Other (please specify)”.</p>

4.1.2 Adding Categories, Fuels and Gases to the Navigation Tree

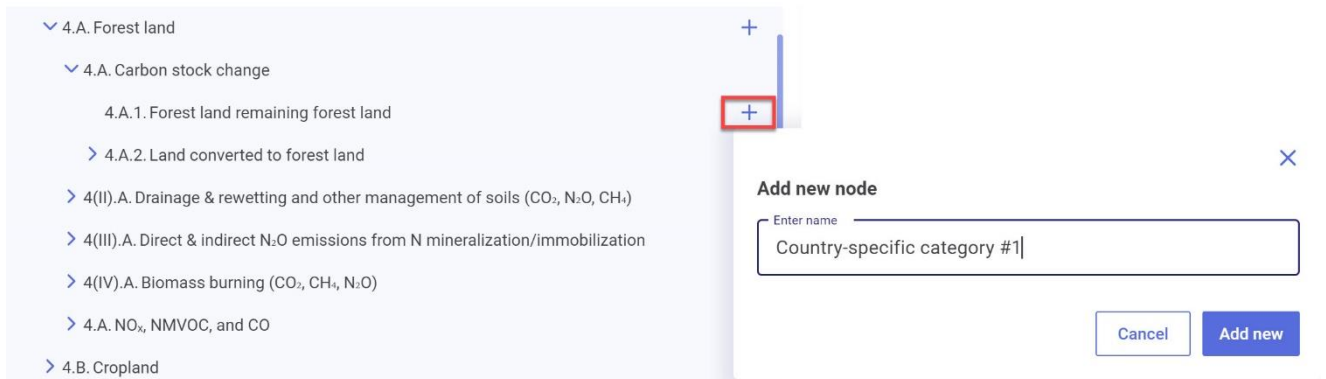
To add country specific categories:

1. For those categories for which there is a chevron the user must simply select the  sign and the relevant subcategories appear.
2. For categories with a plus sign , there are two ways to add country-specific categories:
 - a. Select from a drop-down list, consistent with the agreed CRT. The user may select the “+” sign and check the boxes next to any of the categories relevant to their country. Only the categories added from the dropdown list will appear in the navigation tree and reporting tables. After selecting the category, each category will appear in the navigation tree, along with the corresponding data entry grid.



- b. Add a country-specific category or fuel where the category/sub-category has “please specify”. To add a country-specific fuel, gas and/or category select the “+” sign and enter the country-specific name for the fuel/gas/category. If a relevant country-specific fuel/category/gas has already been entered in the current sector the name will appear

as an option. After entering the name, select **Add new** so that the country-specific category is added in the navigation tree.



The user should always check that the sub-header bar displays “Data synchronized” before navigating away from any added node to ensure information has been saved (see section 2.2 Sub-header Bar).

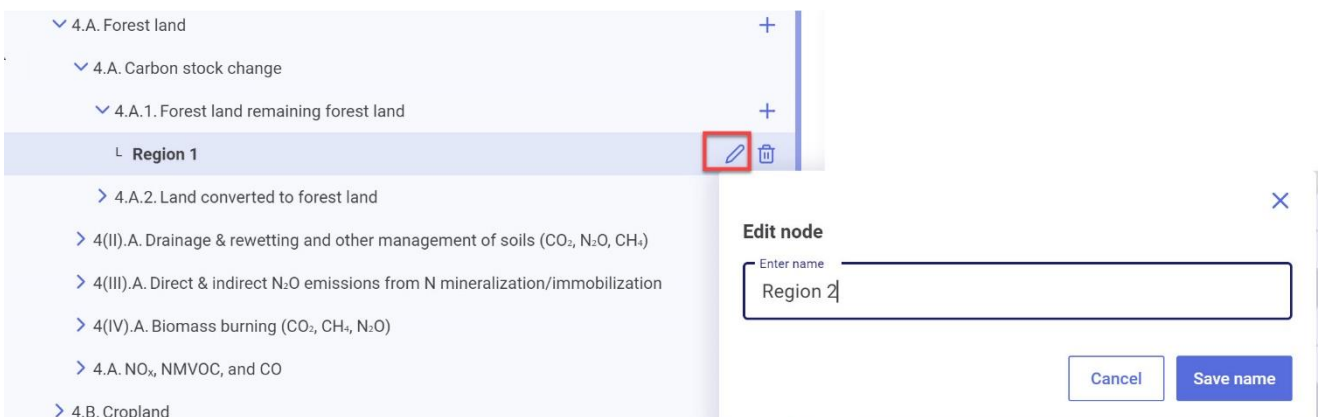
If the user attempts to leave the data entry tab before the data is synchronized, they will get a pop-up message asking for confirmation. Select No to wait for the changes to be recorded.

4.1.3 Modifying Subcategories of Navigation Tree

The user may edit the name of a country-specific category added to the navigation tree.

To edit the name of a country-specific category or fuel (note the user cannot add country-specific gases; rather only add pre-defined gases and subsequently delete them):


1. **Navigate** to the category in the navigation tree for which the user wishes to modify the name and **click on the pencil icon** to edit the node name.
2. **Revise the name** and click on **Save name** to save the edited node name.

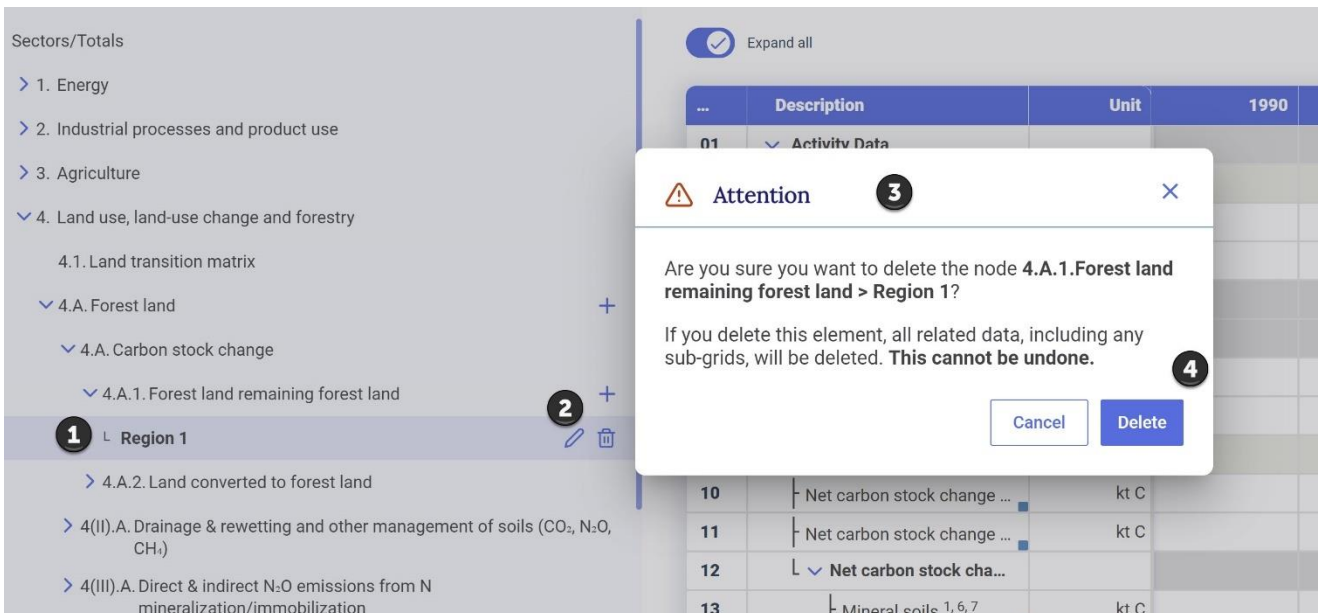


4.1.4 Deleting Subcategories, Fuels and Gases of Navigation Tree

The user may delete any country-specific category or fuel added to the navigation tree, as well as any F-gas(es) selected. However, the user cannot delete standard nodes that pre-existed in the navigation tree.

To delete a country-specific category/fuel/gas:

1. Navigate to the category/fuel/gas in the navigation tree the user wishes to delete.
2. **Select** the trash bin  icon.
3. The user will be prompted to answer if they really wish to delete the element. Note that deletion will result in loss of data.
4. To confirm, select **Delete**.



The screenshot shows a navigation tree on the left and a data table on the right. The navigation tree is expanded to show a country-specific category 'Region 1' under '4.A.1. Forest land remaining forest land'. A trash bin icon is visible next to 'Region 1', marked with a '2'. A confirmation dialog box is overlaid on the table, titled 'Attention' (marked with a '3'). The dialog asks: 'Are you sure you want to delete the node 4.A.1.Forest land remaining forest land > Region 1?'. It also states: 'If you delete this element, all related data, including any sub-grids, will be deleted. This cannot be undone.' (marked with a '4'). The dialog has 'Cancel' and 'Delete' buttons.

...	Description	Unit	1990
01	Activity Data		
10	Net carbon stock change ...	kt C	
11	Net carbon stock change ...	kt C	
12	Net carbon stock cha...		
13	Mineral soils 1, 6, 7	kt C	



4.2 Data Entry

The data entry grids are the primary workspaces where the user enters the specific information for each category of the GHG inventory (e.g. AD, type of method and EF used, emissions or removal estimates and any category-specific documentation for all the years in the time series). The nodes in the navigation tree are associated with corresponding data entry grids. Some items in the navigation tree do not have a corresponding data entry grid, in which case a message indicating this will be displayed on the right-hand side of the page.

The information required depends on the category and selections made in the version settings. Specifically, the structure of the data entry grid reflects the following choices made in version settings:

- Only those years chosen for reporting will be presented in each data entry grid.
- Some cells may already be populated based on user selections on GCV/NCV, and whether specific fuels and gases are not occurring (“NO”).

Color codes are used in the data entry grids as shown in [Table 6](#).

Table 6. Meaning of Color Coding in Data Entry Grids

	White	User can enter data
	Green	Data are automatically calculated by the application
	Brown	Formula in these cells have been overwritten with user entered data
	Blue	Value cross referenced from information entered elsewhere
	Gray	No input necessary
	White with chevron	Data can be selected from dropdown list
	White with text	Documentation box; manual data entry
	Green with text	Documentation box summarizing information manually entered in child nodes

There are three ways to enter data in the data entry grids:

1. Manual input into the data entry grids in the application.
2. Export and import of data using Excel.
3. Export and import of data using .json (for connecting with a national system or interoperability with the IPCC Inventory Software).

XML import is not supported in the reporting tool.

4.2.1 Manual Data Entry

Manual data entry can be done in the respective data entry grid of each category in the navigation tree.

To manually enter data:

1. Go to **Data entry** from the Header Bar.
2. Select the category of interest from the **Navigation tree**; after clicking the data entry grid appears in the right-hand window.
3. Ensure the correct years for reporting are displayed. If not, select **Show/hide years** and check the years of interest.
4. In the data entry grid, provide the required information in the corresponding white cells. Values in green cells (e.g. IEF), are automatically calculated by the tool.

The screenshot shows the EITP GHG INVENTORY interface. The 'Data entry' tab is active in the header. The navigation tree on the left shows '3.G.1. Limestone CaCO₃' selected. The main data entry grid for '3.G.1. Limestone CaCO₃' is displayed, with columns for years 1990-1993 and rows for 'Amount applied', 'Method', 'Emission factor information', 'Emissions', and 'Implied emission factor'. A 'Show/hide years' dropdown is visible in the top right of the grid area.

5. For some categories, e.g. many categories in the IPPU sector, the user will be asked to specify the AD used for reporting (e.g. for category 2.C.2 Ferroalloys production the user is asked to specify whether the AD reflects ferroalloys production, reducing agent consumed, or another custom AD, which may be entered directly by selecting the “+” sign).

The screenshot shows the EITP GHG INVENTORY interface for category '2.C.2. Ferroalloys production'. The data entry grid is displayed, and a dropdown menu for 'Activity Data' is open, showing options like '(please specify)', 'Ferroalloys production', 'Reducing agent consumed', and '+ Custom name'. A red arrow points to the '+' sign.

Note that data are typically entered in white cells, at a child node (e.g. the data entry grid for 3.G.1 Limestone CaCO₃, above). In cases where the navigation tree is editable through a “+” sign (see Table 5) data may be directly entered at a parent level (e.g. category 1.A.1.a Public electricity and heat production). Although this is a green cell (typically not editable), a green cell in a data entry grid that

coincides with a “+” sign is unique in that it is editable. Users may wish to enter data at the parent level if more disaggregated data is not available.

To enter data at the parent level, where the navigation tree includes a “+” sign double click on the corresponding green cell in the data entry grid and enter the data directly. The user can add the data at the parent levels with “+” sign only when there are no child nodes added below them.

The screenshot shows a software interface with a navigation tree on the left and a data grid on the right. The navigation tree is titled 'Navigation tree' and has an 'Options' button. It lists 'Sectors/Totals' with a sub-item '1. Energy'. Under '1. Energy', there is '1.A. Fuel combustion activities (sectoral approach)', which includes '1.A.1. Energy industries'. The item '1.A.1.a. Public electricity and heat production' is highlighted in blue and has a '+' sign to its right. Below it is '1.A.1.b. Petroleum refining'. The data grid on the right is titled '1.A.1.a. Public electricity and heat production ^{8,9}'. It has an 'Expand all' button with a checkmark. The grid has columns for 'Description', 'Unit', '1990', and '1991'. The rows are: '01 Fuel consumption' (Unit: TJ), '02 Liquid fuels' (Unit: TJ), '03 Solid fuels' (Unit: TJ, 1990: 15,000), and '04 Gaseous fuels' (Unit: TJ). The cell for '1990' under 'Solid fuels' is highlighted with a white border.

After clicking on **Enter** the white cell becomes brown with bars, indicating the cell has been edited.

This screenshot is similar to the previous one, but the '1990' cell for 'Solid fuels' is now highlighted with a brown background and vertical bars, indicating it has been edited. The value '15,000' is still visible in the cell. The navigation tree and other elements remain the same.

4.2.1.1 Functions to Facilitate Manual Data Entry

The reporting tool contains **several features to facilitate manual data entry**, including copy and paste, drag and drop, notation key propagation and a function to apply information to subsequent years. In all cases, the user may overwrite any propagated /pasted cell.

1. **Copy and paste.** The user may copy and paste data both within a specific data entry grid, across data entry grids, and between a data entry grid and Excel.
2. **Notation key propagation.** If the user inserts the notation key “NO” into a cell, the cells for AD and emissions for all years after the year in which the notation key was first entered, will automatically be propagated with the same notation key. The propagation will occur until the end of the time series, or an earlier year if a value or another notation key has already been

inserted. In the scenario where a “NO” is inserted for AD, the cells for data entry for method and EF are automatically populated with “NA”.

3. **Drag and drop.** While notation key propagation is automatic, you can achieve a similar result with values, using the drag and drop function.
4. **Apply to subsequent years.** In several data entry grids, the user is presented with a toggle to indicate that the selected information should “apply to subsequent years”. For example, this can be done for the selection of NCV/GCV (energy sector), selection of method and EF (all data entry grids), selection of units of AD (controlled burning), among other data entry grids.

03	Method					
04	CO ₂					<input type="checkbox"/> D
05	CH ₄					<input type="checkbox"/> T1
06	N ₂ O					<input type="checkbox"/> T1a
07	Emission factor information					<input type="checkbox"/> T1b
08	CO ₂					<input type="checkbox"/> T1c
09	CH ₄					<input type="checkbox"/> T2
10	N ₂ O					<input type="checkbox"/> T3
11	Emissions					<input type="checkbox"/> CR
12	CO ₂		kt			<input type="checkbox"/> CS
13	CH ₄		kt			<input type="checkbox"/> M
14	N ₂ O		kt			
15	Amount captured					
16	CO ₂		kt			

D
 T1
 T1a
 T1b
 T1c
 T2
 T3
 CR
 CS
 M

Apply to subsequent years
Clear
Apply selection

4.2.1.2 Validation Rules for Data Entry

There are several **validation rules embedded in the data entry grids:**

- AD and emissions must be either a positive value or a notation key (NO, NA, IE, NE, C, FX).
- Zero (“0”) is allowed only in limited cases (net carbon stock change, net emissions/removals).
- A dot (“.”), not a comma (“,”) must be used to signify a decimal point.
- Value must be between 0 and 1 where fractions are required.
- Value must be between 0 and 100 where information required is in unit percentage (%).
- A negative value is required for “Amount captured”, “Recovery” and “Losses”.

- Text format must be used where the information required is a description (e.g. AD description (in IPPU); feeding situation and organic amendments added (in agriculture)).

If data entered do not meet the validation criteria, an error message will be displayed and the erroneous data will not be saved (the cell will be outlined in red and a red dot will appear). Clicking on the red dot will provide information on the type of error. Data in an incorrect format will not be saved. See the illustration below, where 1990 contains proper input of data that meets all validation rules, while for 1991, improper data have been entered, as indicated by the red square and dot.

1.A.1.a.i. Electricity generation > Liquid fuels

Expand all Show/hide years [Export](#)

...	Description	Unit	1990	1991	1992	1993	1994
01	Fuel consumption	TJ	5.00	test •	→	Text not allowed	
02	Calorific value		∨	∨	∨	∨	∨
03	> Method						
07	> Emission factor information						
11	∨ Emissions						
12	CO ₂	kt	10.00	-5.00 •	→	Emissions must be positive	
13	CH ₄	kt	15.00	NI •	→	NI not a valid notation key	
14	N ₂ O	kt	20.00	0.00 •	→	0 not allowed for emissions	
15	∨ Amount captured						
16	CO ₂	kt	-5.00	5.00 •	→	Amount captured must be negative	
17	∨ Implied emission factor						
18	CO ₂	t/TJ	3,000.00				
19	CH ₄	kg/TJ	3,000,000.00				
20	N ₂ O	kg/TJ	4,000,000.00				
21	Documentation box						

4.2.2 Export and Import with Excel

The reporting tool allows for **export and download of data entry grids in Excel format**. The user may then enter, edit and re-import data into the tool. Export and import of data entry grids can be done at the level of a sub-category, sector, or for the entire inventory.

The import function replaces all existing data in white cells, as well as recalculates green cells, where applicable, for the defined set of data imported (for example, a single grid (cement production) or an entire sector (IPPU)). Data in green cells are automatically recalculated based on updated data.

Some words of caution when importing a file from Excel:

- The import function will **only work with Excel files exported from the reporting tool**. Excel files from the previous CRF Reporter or any other system cannot be imported into the tool.
- The user should **not change the structure of the Excel file** (e.g. adding/deleting columns or rows). If the structure is changed, the Excel file may not be read by the tool for import, or in some cases (e.g. if a row is deleted in the Excel file), data will not import into the proper location in the data entry grid.

4.2.2.1 Export to Excel

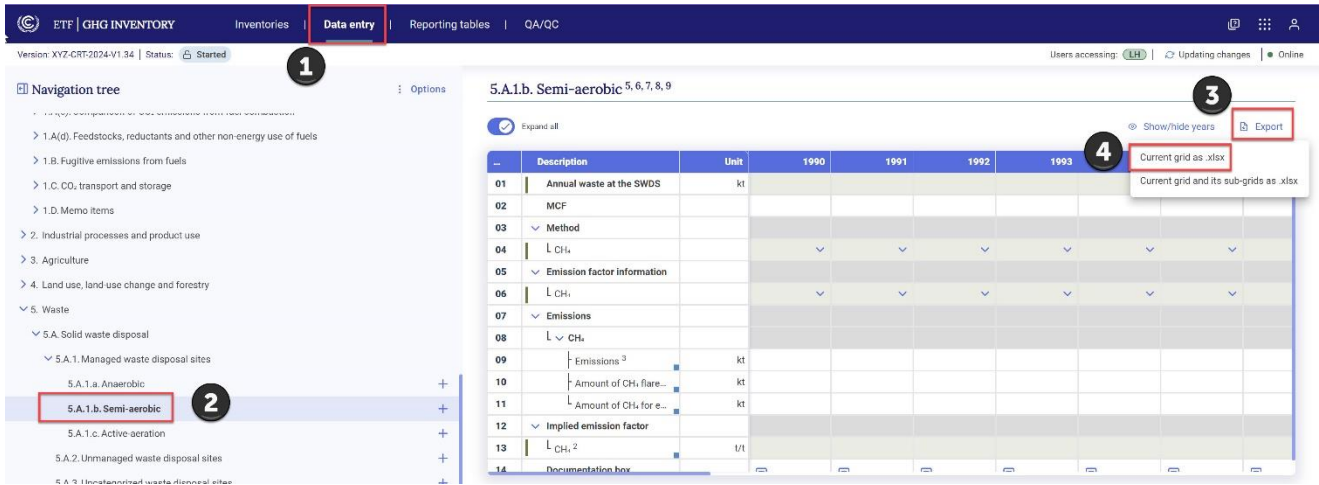
Data entry grids can be exported at **varying levels of aggregation** to Excel reflecting various levels of reporting (e.g. sector, category, sub-category), as described in Table 7.

Table 7. Data Export into Excel at Various Levels

If the user selects...	...what will be exported
Current grid as .xlsx	Data will be exported for the currently visible data entry grid.
Current grid and its sub-grids as .xlsx	Data will be exported for the currently visible data entry grid, as well as any subcategories (child nodes of the navigation tree). For example, if the user is in category 5.A.1.a, selecting this option will download 5.A.1.a. However, if in category 5.A.1, selecting Current grid and its sub-grids will download 5.A.1 as well as 5.A.1.a, 5.A.1.b and 5.A.1.c.
All data entry grids	Data can be exported for all data entry grids from the Navigation tree.

To export data in Excel for the current grid as .xlsx

1. Select **Data entry** from the header bar.
2. Navigate to the category of interest in the **Navigation tree**.
3. Select **Export** from the upper right-hand side of the data entry window.
4. Select **Current grid as .xlsx** to export that single grid.



5. This will **export to Excel the visible data entry grid** (see [Figure 3](#)). The user can then proceed to enter data in the downloaded Excel file.

Remember never change the structure of the Excel table. Data should be entered into white cells, and in limited cases green cells where there are no child nodes added from a dropdown list. Data entered into Excel must also follow the required conventions described in section [4.2.1.2 Validation Rules for Data Entry](#) (e.g. in the image below, annual waste at the SWDS must be entered as a positive value, while the amount flared must be entered as a negative value).

Figure 3. Example Excel Export of Single Data Entry Grid

TEST		XYZ-CRT-2024-V0.77	Exported on: 2024-04-15 16:33:17 (UTC-4)					
Sectors/Totals > 5. Waste > 5.A. Solid waste disposal > 5.A.1. Managed waste disposal sites > 5.A.1.b. Semi-aerobic								
ID	Description	Unit	1990	1991	1992	1993	1994	1995
01	Annual waste at the SWDS	kt	5.00					
02	MCF							
03	Method							
04	CH ₄							
05	Emission factor information							
06	CH ₄							
07	Emissions							
08	CH ₄							
09	Emissions	kt	4.00					
10	Amount of CH ₄ flared	kt	-3.00					
11	Amount of CH ₄ for energy recovery	kt	-2.00					
12	Implied emission factor							
13	CH ₄	t/t	1.80					
14	Documentation box							
>	5.A.1.b.Semi-aerobic	+						

To export data in Excel for a grid and its sub-grids as .xlsx

1. Select **Data entry** from the header bar.
2. Navigate to the sector/subsector of interest in the **Navigation tree**.
3. Select **Export** from the upper right-hand side of the data entry window.
4. Select **Current grid and its sub-grids as .xlsx** (see illustration above for export of current grid).

Note that to export multiple data entry grids for the grid and its sub-grids, the user must select from the Navigation tree a node that has sub-categories. For example, if the user selects managed waste disposal sites from the navigation tree and exports **Current grid and its sub-grids as .xlsx**, the tool will export the Excel for all sub-categories under Managed Waste Disposal Sites, as shown below. On the contrary, if the user were to select Bulk Waste under category 5.A.1.a Anaerobic, there would not be an option to export Current grid and its sub-grids as .xlsx because there are no sub-categories at this level.

TEST			XYZ-CRT-2024-V1.34 Exported on: 2024-05-26 18:34:42 (UTC-4)						
Sectors/Totals > 5. Waste > 5.A. Solid waste disposal			> 5.A.1. Managed waste disposal sites						
ID	Description	Unit	1990	1991	1992	1993	1994	1995	1996
01	Annual waste at the SWDS	kt							
02	Method								
03	CH ₄								
04	Emission factor information								
05	CH ₄								
06	Emissions	kt equivalent							
07	CH ₄								
08	Emissions	kt							
09	Amount of CH ₄ flared	kt							
10	Amount of CH ₄ for energy recovery	kt							
11	NO _x	kt							
12	CO	kt							
13	NMVOOC	kt							
14	Implied emission factor								
15	CH ₄	t/t							
16	Documentation box								

>
5.A.1.Managed waste disposal
5.A.1.a. Anaerobic
5.A.1.b. Semi-aerobic
5.A.1.c. Active-aeration
+

To export all data entry grids as .xlsx (i.e for the entire GHG inventory):

1. Select **Data entry** from the header bar.
2. Select **Options** from the upper right-hand side of the **Navigation tree**.

3. Select **Export all data entry grids as .xlsx**.

The screenshot shows the 'Data entry' section of the GHG Inventory tool. The 'Options' menu is open, and the 'Export all data entry grids as .xlsx' option is highlighted. The background shows a navigation tree on the left and a data table on the right.

	Unit	1990
03	CH ₄	T2,T3,CR,CS,NA
04	N ₂ O	T2,T3,CR,CS,NA
05	Emission factor information	
06	CO ₂	D,CR,PS,OTH,...
07	CH ₄	D,CR,PS,OTH,...
08	N ₂ O	D,CR,PS,OTH,...
09	Emissions ^{1,2}	kt CO ₂ equiv... 56,567,579.32
10	CO ₂	kt 363,033.78

4.2.2.2 Import through Excel

To use Excel for data entry, first ensure the Excel file for import was first exported from the reporting tool, as described in the previous section, before adding or editing data, then:

1. Go to **Data entry**.
2. Select **Options** from the **Navigation tree** menu.
3. From the Option menu, select **Import .xlsx file**.

Version: XYZ-CRT-2024-V0.65 | Status: Started

Navigation tree

- Sectors/Totals
 - > **1. Energy**
 - > 2. Industrial processes and product use
 - > 3. Agriculture
 - > 4. Land use, land-use change and forestry
 - > 5. Waste
 - > 6. Other (please specify)
 - > Documentation box (Cross-cutting tables)

Options

- Edit navigation tree
- Import .xlsx file**
- Export all data entry grids as .xlsx
- Export all data entry grids as .json

	Unit	1990
03	CH ₄	T2,T3,CR,CS,NA
04	N ₂ O	T2,T3,CR,CS,NA
05	Emission factor information	
06	CO ₂	D,CR,PS,OTH,...
07	CH ₄	D,CR,PS,OTH,...
08	N ₂ O	D,CR,PS,OTH,...
09	Emissions ^{1,2}	kt CO ₂ equiv... 56,567,579.32
10	CO ₂	kt 363,033.78

4. Select the appropriate file from the user's computer or drag and drop.

5. Select **Import**.

Import selected file:

You are about to import the data from selected .xlsx file to the active working version of the inventory

1-A-1-a-i- Electricity generation.xlsx
19.72 KB

Cancel **Import**

6. Import may be **successful** (information in the Excel file imported, without issue), **partially successful** (the Excel file imported, but some values may be missing, e.g. if a cell does not meet the validation criteria) or **fail** (file did not import). The user can download the import log by clicking on [Link to the log file](#). The import log will indicate those values that were successfully changed upon import, and where specific values did not successfully import (for example because data entry entry was not consistent with the validation rules). If an import fails, the user should ensure the file was exported using the steps described above. **Error! Reference source not found.**

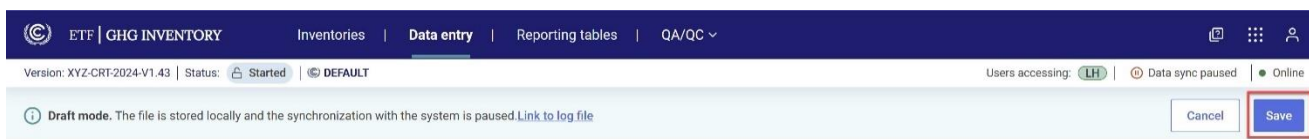
Import partially successful!
Please check the log file for more details. [Link to log file](#)

1. Energy¹

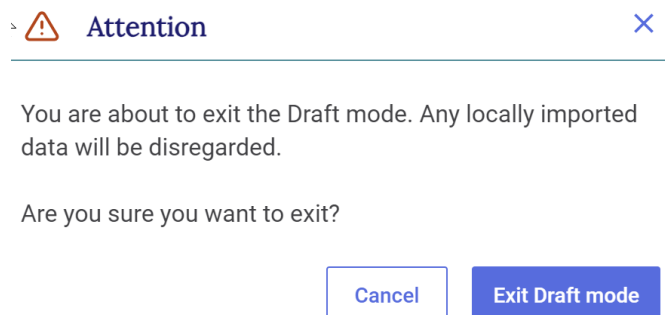
Expand all Show/hide years Export

...	Description	Unit	1990	1991	1992	1993	1994	1995
01	Method ^{4,5}							
02	CO ₂ ²							
03	CH ₄ ³							

7. After import, the data entry grid will appear. A banner will appear just below the **Sub-header bar** indicating **Draft mode**. This allows the user to preview the data. Imported data are not fully saved and synchronized with the online mode until the user selects **Save**.



Selecting **Cancel** will revert to the data prior to import; the most recent import will be disregarded.



4.2.3 Export and Import of a .json File

In addition to use of Excel, data exchange may happen with the use of a .json file. The system will only import .json files that have been validated and contain the proper electronic signature. For technical information on the file structure, refer to <https://unfccc.int/etf-reporting-tools-help#Technical>.

4.2.3.1 Export of a .json File

Export of .json file is possible by sector or for all data entry grids at once.

To export a .json file for a specific sector:

1. Select **Data entry** from the header bar.
2. Navigate to a sector node in the **Navigation tree** (e.g. 1. Energy, 2.IPPU, etc).
3. Select **Export** from the upper right-hand side of the **Data entry grid**.
4. Select **Current grid and its sub-grids as .json**.

The screenshot shows the 'Data entry' section of the GHG Inventory system. The navigation tree on the left is expanded to '1. Energy'. The main table displays data for '1. Energy' with columns for Description, Unit, and 1990. A dropdown menu is open over the 'Options' icon, showing 'Export' and 'Show/hide years' options. The 'Export' option is highlighted, and a sub-menu is visible with 'Current grid and its sub-grids as .json' selected.

...	Description	Unit	1990
01	Method		
02	CO ₂		NA
03	CH ₄		NA
04	N ₂ O		NA
05	Emission factor information		
06	CO ₂		NA
07	CH ₄		NA
08	N ₂ O		NA
09	Emissions ^{1,2}	kt CO ₂ equiv...	52,033,117.70
10	CO ₂	kt	382,407.92
11	CH ₄	kt	644,593.80
12	N ₂ O	kt	126,800.32

The user can also export all data entry grids in .json format as follows:

1. Select **Data entry** from the header bar.
2. Navigate to any category in the **Navigation tree**.
3. Select **Options** from the upper right-hand side of the **Navigation tree**.
4. Select **Export all data entry grids as .json**.

The screenshot shows the 'Data entry' section of the GHG Inventory system. The navigation tree on the left is expanded to '1. Energy'. The 'Options' menu is open, showing 'Export all data entry grids as .json' selected. The table below shows data for '1. Energy' with columns for Description, Unit, and 1990.

...	Description	Unit	1990
03	CH ₄ ³		
04	N ₂ O ³		
05	Emission factor information ¹		
06	CO ₂		

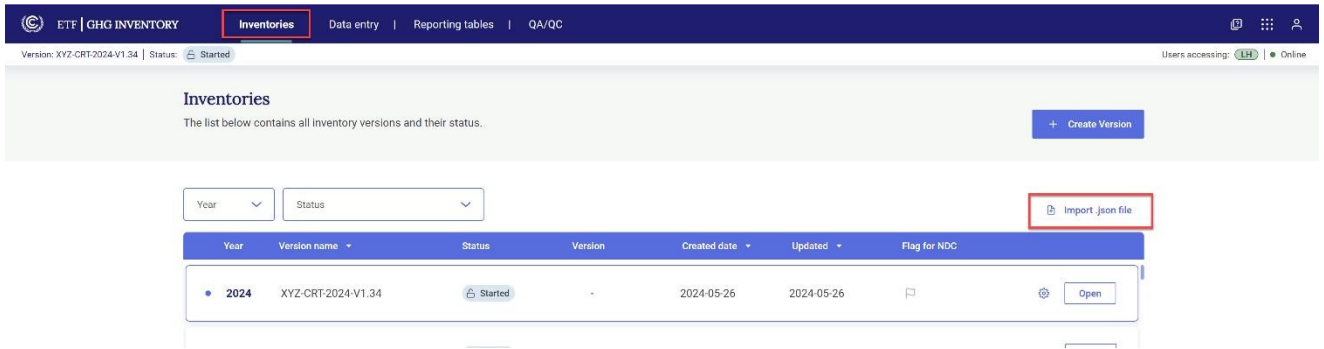
4.2.3.2 Import of a .json File

This section refers to how to import a .json file into an existing inventory. To learn how to **create a version of the inventory** from a .json file refer to section [3.2 Upload a File](#). The user may import a .json file for a single category, a sector, or the entire inventory.

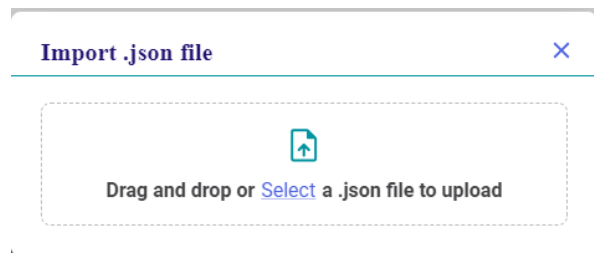
Be aware that an imported .json file will overwrite any data entered in the corresponding data entry grid(s) and recalculate values in cells with formulas **for all cells that are contained in both the existing inventory and the .json file** (see [Box 1](#) for further details).

To import a .json file into an existing GHG inventory:

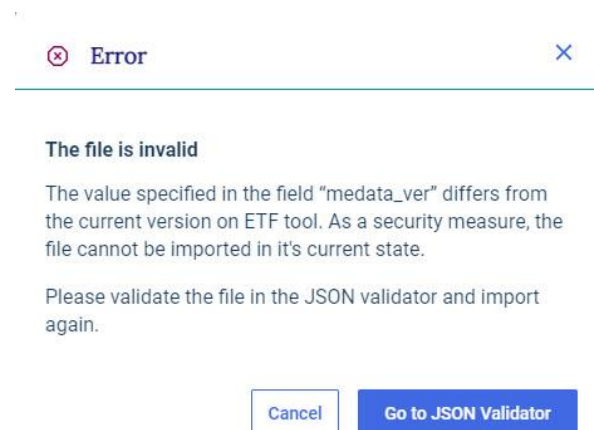
1. From the Header bar, select **Inventories**.
2. Select **import .json file**.



3. Either **drag and drop the .json file** of interest from the computer or **Select a file to upload**.



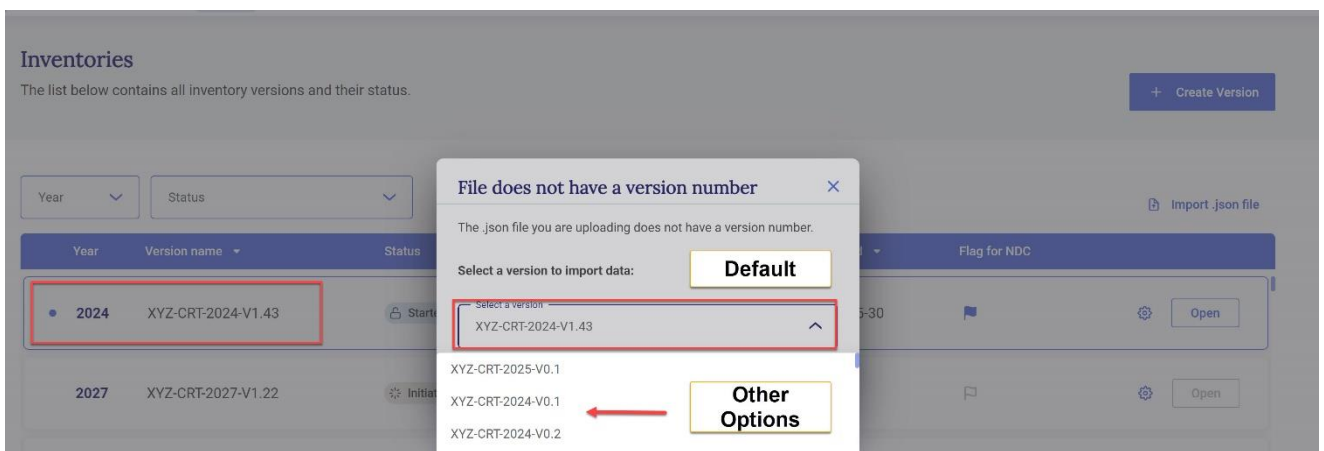
Recall that the reporting tool will only accept a validated file. If the file has not been validated, the user will see a pop-up box indicating that the file must be validated. If this appears, select **Go to JSON Validator** (see section [3.2 Upload a File](#)).



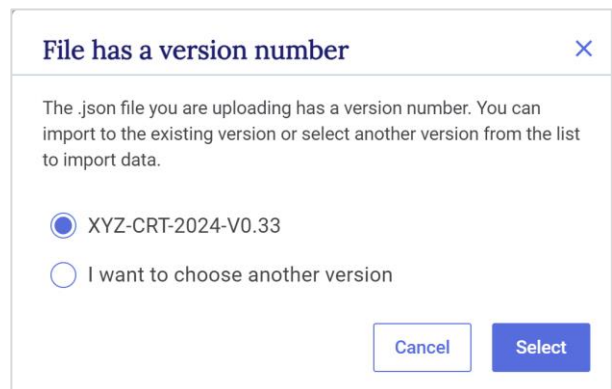
4. The user will then be prompted to indicate into which inventory version they would like to import the .json. There are two possibilities:

- The .json file does not have a version number associated with it (e.g. it was created from a national system or the IPCC Inventory Software).
- The .json file is already associated with a version number (i.e. it was exported from an inventory in the reporting tool).

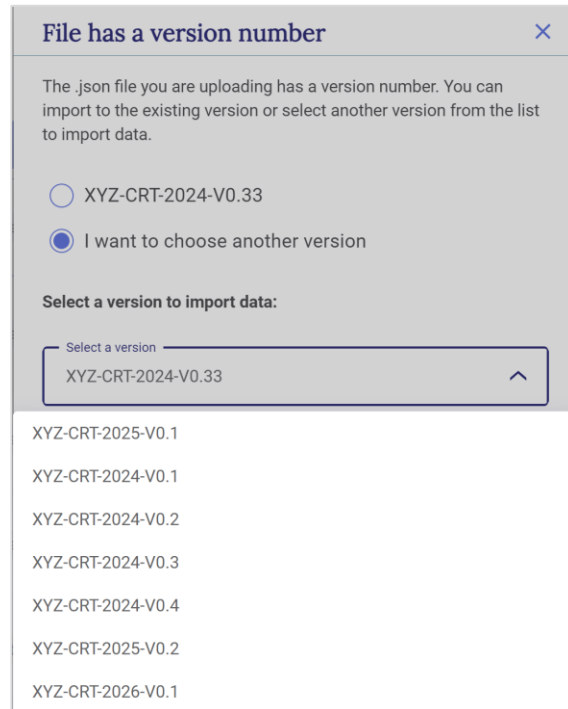
If the .json file does not have a version number associated with it, the user will be asked to select from the dropdown the inventory into which the .json file should be uploaded. By default, the version selected will be the most recent version.



If the .json file to be imported originated from a previously exported .json file of an existing inventory in the reporting tool (see section 4.2.3.1 [Export of a .json](#)) the tool will alert the user that the .json file is already associated with an inventory and it will ask if the user would like to import the .json file into that inventory, or choose another version. Otherwise, by default, the version selected will be the last version accessed by the user.



To choose another version, select from the dropdown list and click **Select**.

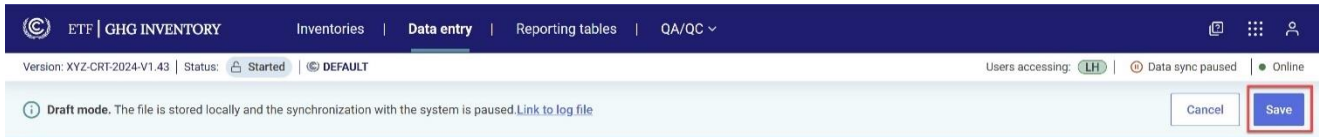


Import may be **successful** (information in the .json file imported, without issue), **partially successful** (the .json file will import, but some values may be missing, e.g. if a cell does not meet the validation criteria) or **fail** (file did not import). The user can download the import log by clicking on [Link to the log file](#). If import fails, the user may try again to import an appropriate file. See [Table 8](#) for possible error messages in the log file. **Error! Reference source not found.**

Table 8. Example Alerts upon .json Import

Alert	Meaning
It's a calculated variable	The .json file contains data for a cell that is calculated by the reporting tool. These data are not imported.
Saved value	This value successfully imported.
Reason is Only positive excluding 0.	The .json contains a value for this UID that does not meet the requirements of the reporting tool. In this case, imported data included a negative value or 0, and could not be imported because the cell only accepts positive values
Reason is Only negative excluding 0.	The .json contains a value for this UID that does not meet the requirements of the reporting tool. In this case, imported data included a positive value or 0, and could not be imported because the cell only accepts negative values
Reason is Only values from variable drop down.	The reporting tool only accepts pre-defined values/text for this cell and the .json does not meet these specifications.
Reason is percentage must be between 0 and 100%, including 0 and 100%.	The .json contains a value for this UID that does not meet the requirements of the reporting tool. In this case, imported data included a value that is not between 0-100% and thus could not be imported.

After import, the data entry grid will appear. A banner will appear just below the **Sub-header bar** indicating **Draft mode**. Imported data are not fully saved and synchronized with the online mode until the user selects **Save**.



Attention

Selecting **Cancel** will revert to the data prior to import; the most recent import will be disregarded.

You are about to exit the Draft mode. Any locally imported data will be disregarded.

Are you sure you want to exit?

4.2.4 Designating Information as Confidential

Users may report AD and/or emissions/removals information as confidential. When the data entry grid for a category includes the notation key “C” (confidential) for AD or for emissions, the aggregation formula (i.e. green cell) for that parameter in the parent category becomes editable and can be overwritten. To avoid disclosure of confidential information, the user can manually enter the aggregated value in a parent node.

Note that the ability to overwrite a green parent cell to include the confidential information is possible only up to a certain category level. Parent level cells that can be overwritten are visible as brown cells. It is important for a complete GHG inventory that all confidential emissions are reported; if necessary at a higher level of aggregation to avoid disclosure of the confidential information.

To report confidential information:

1. Select **Data entry** in the header bar.
2. Navigate to the category for which the user wants to report confidential data (e.g. AD for solid fuels from category 1.A.1.c.i Manufacture of solid fuels).
3. Enter “C” for the AD or gas, as appropriate.

ETF | GHG INVENTORY Inventories | **Data entry** | Reporting tables | QA/QC | Json validator

Version: XYZ-CRT-2024-V1.17 | Status: Started **1** Users accessing: LH | Data sync paused | Online

Navigation tree Options

- 1.A.1. Energy industries
 - 1.A.1.a. Public electricity and heat production +
 - 1.A.1.b. Petroleum refining +
 - 1.A.1.c. Manufacture of solid fuels and other energy industries +
 - 1.A.1.c.i. Manufacture of solid fuels** **2**
 - Liquid fuels** **3**
 - Solid fuels
 - Gaseous fuels
 - Other fossil fuels
 - Peat
 - Biomass
 - 1.A.1.c.ii. Oil and gas extraction +
 - 1.A.1.c.iii. Other energy industries +
 - Liquid fuels
 - Solid fuels

1.A.1.c.i. Manufacture of solid fuels > Liquid fuels ⁶

Expand all Show/hide years Export

	Description	Unit	2018	2019	2020	2021	2022
01	Fuel consumption	TJ	C	C	C	C	C
02	Calorific value ⁵						
03	Method						
04	CO ₂		D	D	D	D	D
05	CH ₄		T1	T1	T1	T1	T1
06	N ₂ O		T1	T1	T1	T1	T1
07	Emission factor information						
08	CO ₂		D	D	D	D	D
09	CH ₄		D	CR	CR	CR	CR
10	N ₂ O		D				
11	Emissions						
12	CO ₂ ^{2,3}	kt	C	C	C	C	C
13	CH ₄	kt	C	C	C	C	C
14	N ₂ O	kt	C	C	C	C	C

4. Navigate to a parent category containing a brown, editable cell and enter an adjusted value for the parameter (e.g. AD or gas), to include reporting of the confidential information. In the example of “C” entered for AD for liquid fuels in category 1.A.1.c.i, the brown editable cell appears at category 1.A.1.c Manufacture of solid fuels and other energy industries.

Navigation tree Options

- 1.A.1. Energy industries
 - 1.A.1.a. Public electricity and heat production +
 - 1.A.1.b. Petroleum refining +
 - 1.A.1.c. Manufacture of solid fuels and other energy industries** +
 - 1.A.1.c.i. Manufacture of solid fuels
 - Liquid fuels
 - Solid fuels
 - Gaseous fuels
 - Other fossil fuels
 - Peat
 - Biomass
 - 1.A.1.c.ii. Oil and gas extraction +
 - 1.A.1.c.iii. Other energy industries +
 - Liquid fuels
 - Solid fuels
 - Gaseous fuels

1.A.1.c. Manufacture of solid fuels and other energy industries ^{8,9}

Expand all Show/hide years Export

	Description	Unit	2018	2019	2020	2021	2022
01	Fuel consumption	TJ		2.00	3.00	4.00	5.00
02	Liquid fuels	TJ					
03	Solid fuels	TJ		2.00	3.00	4.00	5.00
04	Gaseous fuels	TJ					
05	Other fossil fuels	TJ					
06	Peat	TJ					
07	Biomass	TJ					
08	Calorific value ⁷						
15	Method						
19	Emission factor information						
23	Emissions ^{1,2}	kt CO ₂ equiv...		588.00	882.00	1,176.00	1,470.00
24	CO ₂ ^{4,5}	kt		2.00	3.00	4.00	5.00
25	Liquid fuels ^{4,5}	kt					
26	Solid fuels ^{4,5}	kt		2.00	3.00	4.00	5.00

4 The user can overwrite the brown cells in order to incorporate the confidential information at a more aggregated value



4.3 Generate Common Reporting Tables

The user may **generate a single reporting table, multiple reporting tables or the entire GHG inventory for one or more years**. The reporting tables will be generated in Excel following the format and structure of the agreed tables annexed to decision 5/CMA.3. These files may be saved, archived, published or used for QA/QC and other national purposes, but cannot be used for subsequent import into the reporting tool.

To generate the common reporting tables

1. Select **Reporting tables** from the **Header bar**.
2. Select the **Year(s)** of interest by checking the corresponding box(es) before the year(s).
3. Select which sectors, summary and/or cross-cutting tables to generate by checking the box(es) under **Sectors, Summary and Cross-cutting table(s)**.
4. User can also select the specific **Tables to generate**. By default, the dropdown will identify all tables for download that meet the criteria in Sectors, summary and cross-cutting tables.
5. Select **Apply**.

If the user requests a single year of data, one file is made available for download. Where multiple years are selected, the user is given the option to download each .xlsx file individually or download all files as a zip file.

ETF | GHG INVENTORY | Inventories | Data entry | **Reporting tables** | QA/QC

Version: XYZ-CRT-2024-V1.34 | Status: Started

Common reporting tables

Select and download reporting tables.

Select by

Years: 1990

Sectors, summary and cross-cutting tables: Energy, industrial processes and product use, Agriculture, La...

Tables: Table1, Table1.A(a)s1, Table1.A(a)s2, Table1.A(a)s3, Table1...

Apply Clear

- Energy
- Industrial processes and product use
- Agriculture
- Land use, land-use change and forestry
- Waste
- Summary tables
- Cross-cutting tables

No data yet

Please set your selection criteria above.

4.4 Documentation Box, Cell Comments and Notation Key Explanations

There are two primary places at the bottom of all data entry grids where the user may provide narrative information to further explain the reporting: the **Comments field** (which provides the opportunity to add various types of cell comments and notation key explanations) and the **Documentation box** (see [Table 9](#) for further explanation of these fields).

Table 9. Cell Comments, Notation Key Explanations and Documentation Box

Type	Definition
Comments	Official comment Official comment at the cell level of data entry. Official comments will be reflected in the respective reporting tables of the official GHG inventory submission.
	Party comment A comment entered by a user that they would like to share with other users within their Party. Party comments will NOT be reflected in the official submission.
	User comment A comment entered by a user that is visible only to that user. Users can put reminders for themselves here. User comments will NOT be reflected in the official submission.
Notation Key Explanations	NK category Navigation tree path for the cell where the notation keys "IE" and "NE" are entered or auto-populated by the application. Categories listed in the pathway will be reflected in Table9.
	Allocation by Party Textual information provided by the user explaining the rationale for using the notation key "IE". The allocation provided will be reflected in Table9.
	Allocation by IPCC Textual information provided by the user explaining where the category/emissions should be reported pursuant to the IPCC Guidelines. Information will be reflected in Table9.
	NK Explanation Textual information provided by the user explaining the rationale for use of the notation key "IE" or "NE". The explanation provided will be reflected in Table9.
Documentation Box	The last row in each data entry grid. This type of comment is year-specific and will, therefore, be reflected only in the documentation box section of the reporting table for the year where the comment was entered.

4.4.1 Documentation Box

Each data entry grid includes a documentation box. Information entered in the documentation box will transfer to the documentation box for that category in the generated reporting tables. The documentation box may be used to highlight specific issues related to the Party's reporting for that category, or to direct a reader of the tables to the section of the National Inventory Document where further information may be found.²

Below is an example of the steps to enter information in the documentation box for category 1.A.3.c. Railways – liquid fuels. All documentation entered by a user for category 1.A appears in the documentation box at the end of table 1.A(a)s4. included here Figure 4.

Figure 4. Documentation Box for Table 1.A(a)s4 of the CRT

Documentation Box

- Parties should provide a detailed description of the fuel combustion subsector in the relevant section of chapter 3 ("Energy" (CRT subsector 1.A)) of the NID. Use this documentation box to provide references to relevant sections of the NID, if any additional information and/or further details are needed to explain the contents of this table.
- If estimates are based on GCVs, provide in this documentation box a reference to the relevant section of the NID where the information necessary for calculating the AD based on NCVs can be found.
- If derived gases (e.g. gas works gas, coke oven gas, blast furnace gas) are considered, provide in this documentation box a reference to the relevant section of the NID containing the information on the allocation of these derived gases under the above fuel categories (liquid, solid, gaseous, biomass and other fuels).

Table1.A(b) (2) Index Abbreviations and acronyms Table1 Table1.A(a)s1 Table1.A(a)s2 Table1.A(a)s3 **Table1.A(a)s4** Table1.A(b) ... + : ◀

To add information to the documentation box:

In **Data Entry** of the header bar, navigate to the relevant category / fuel / gas and:

1. In the row titled **Documentation box**, select **the cell for the relevant year** for which documentation is to be provided.
2. Add documentation. If the same documentation is to be applied to subsequent years, toggle the button **Apply to subsequent years** so that it is checked. The same text will populate to the documentation box for all subsequent years until the end of the time series, or until a year in which documentation has already been populated, whichever comes first.
3. Select **Save**.

² The user may wish to consult the documentation boxes in the agreed CRT contained in Annex I to decision 5/CMA.3 to clarify the specific type of information sought for each table.

The screenshot displays the EITF GHG INVENTORY software interface. The navigation tree on the left shows the path '1.A.3.c. Railways > Liquid fuels'. The main data table has columns for years 1990 through 1995. A 'Documentation box | 1990' dialog is open, containing a text input field with the placeholder text 'This is the text that I intended to insert for documentation box'. Below the input field, there is a 'Maximum 5000 characters' label and an 'Apply to subsequent years' toggle switch which is currently checked. The dialog also features 'Close' and 'Save' buttons. Red boxes and numbers 1, 2, and 3 highlight the 'Documentation box' cell in the table, the 'Apply to subsequent years' toggle, and the 'Save' button, respectively.

To edit information in the documentation box:

1. Select **the cell for the relevant year** in the row titled **Documentation box** that is to be edited.
2. Select **Edit** and make the necessary changes.
3. If the user wishes to apply the same documentation to subsequent years, toggle the button **Apply to subsequent years** so that it is checked. The same text edits will populate to the documentation box for all subsequent years until the end of the time series, or until a year in which documentation has already been populated, whichever comes first.
4. Select **Save**.

4.4.2 Cell Comments

Cell comments are applicable only to white-colored cells (those cells where data entry is possible). There are three types of cell comments as explained in [Table 9](#) above. Only official comments can be imported/exported through .json and Excel; other types of comments must be entered directly in the application.

To **add** any type of cell comment, in **Data Entry** of the header bar, navigate to the relevant category / fuel / gas and:

1. Select **the cell** in which a comment is to be made.

2. Select **Comments** in the lower left-hand side of the page.
3. Select the **type of comment**– a brief explanation is included to remind the user whether the specific comment type will be included in the reporting table. Note that official comments cannot be added to cells containing an “IE” or an “NE”. It is expected that any comments related to cells containing “IE” or “NE” would be included in Table9, and thus entered as a **NK explanation** (see section 4.4.3 Notation Key Explanations).
4. Select **Add comment** and add text.
5. Select **Save**.
6. Click on **Comments** again, or anywhere in the data entry grid, to hide the comments section.

2.A.1. Cement production

Expand all Show/hide years Export

...	Description	Unit	1990	1991	1992	1993	1994
01	Activity Data						
02	Clinker production	kt	1,200.00				
03	Method						
04	CO ₂						
05	Emission factor information						
06	CO ₂						
07	Emissions	kt CO ₂ equiv...	10,000.00				
08	CO ₂	kt	10,000.00				
09	SO _x	kt					
10	SO _x						

Comments Party comments User comment

No comments to display for the selected cell
Write a comment for other users within your Party.

+ Add comment

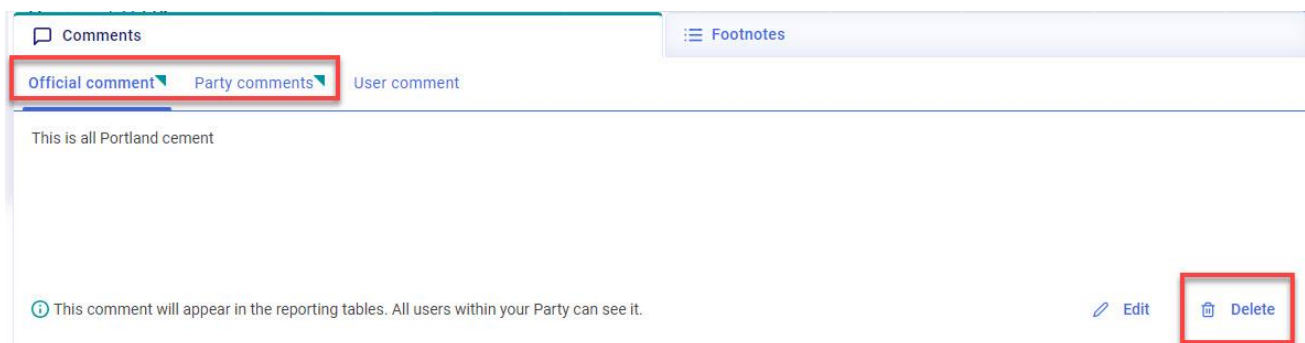
These comments will NOT appear in the reporting tables. All users within your Party can see them.

All cells which contain a cell comment will be indicated by a green triangle in the upper-right hand corner of the cell. Similarly, the comment field include a green triangle indicating the type of comment added.

To modify any text, navigate to the relevant category, change the cell comment, and select **Save**.

To **delete** any type of cell comment:

1. Select **the cell** for which a cell comment is to be deleted.
2. Select the type of comment you would like to delete (you can see in figure below the green triangle indicating where comments have been inserted).
3. Select the **trash bin** icon.



4.4.3 Notation Key Explanations

Table 9 of the CRT requires Parties to provide further information when the notation keys “NE” and “IE” have been used. Notation key explanations are applicable only to white-colored cells (those cells where data entry is possible) and for the following elements of data entry in all sectors:

- Emissions and removals
- Capture, recovery and flaring

Notation key explanations can be entered from the **Comments** tab discussed in section 4.4.2 [Cell Comments](#), with the information requested consistent with what is required per the agreed Table9. It is not possible to input notation key explanations through import/export of Excel. Notation key explanations can be input through import/export of a .json file.

To **add** a notation key explanation for “NE”

In **Data Entry** of the header bar, navigate to the relevant category / fuel / gas and:

1. Select **the cell** to which a notation key explanation is to be added.
2. Select **Comments** in the lower left-hand side of the page.

3. Select **NK Explanation**.
4. Select **Add explanation** and provide relevant information.
5. If the same notation key explanation is to be applied to subsequent years, toggle the button **Apply to subsequent years** so that it is checked. The same notation key explanation will populate to all subsequent years until the end of the time series, or until a year in which an explanation has already been populated, whichever comes first.
6. Select **Save**.
7. Click on **Comments** again, or anywhere in the data entry grid, to hide NK Explanations.

All cells which contain a notation key explanation will be indicated by a green triangle in the upper-right hand corner of the cell.

4.D.1.a. Peat extraction remaining peat extraction > Region 1

Expand all Show/hide years Export

...	Description	Unit	1990	1991	1992	1993	1994
01	Activity Data						
02	Total area	kha	NE	NE	NE	NE	NE
03	Area of mineral soil	kha	NE	NE	NE	NE	NE
04	Area of organic soil	kha	NE	NE	NE	NE	NE
05	Changes in carbon stock						
05	Carbon stock change ...						
07	Gains	kt C	NE	NE	NE	NE	NE
08	Losses	kt C	NE	NE	NE	NE	NE
09	Net change	kt C	NE	NE	NE	NE	NE

Comments Party comments User comment NK Category **NK Explanation**

Write an explanation for the use of notation key

Data not available

Maximum 4,981 characters

This explanation will appear in the reporting table Table9. All users within your Party can see it.

Apply to subsequent years

Cancel Save

To add a notation key explanation for “IE”

Follow the same steps as above for “NE” upon selecting a white cell for emissions/removals/recovery which contains an “IE”. Note for “IE”, Table9 requires entering of three independent pieces of information.

Comments

Party comments User comment NK Category Allocation by IPCC ⓘ Allocation by Party ⓘ **NK Explanation ⓘ**

No explanation to display for the selected cell
Write an explanation for the use of notation key.

ⓘ This explanation will appear in the reporting table Table9. All users within your Party can see it.

Apply to subsequent years

+ Add explanation

To edit a notation key explanation:

1. Select **the cell** for which the notation key explanation is to be modified (all cells containing notation key explanations will include a green triangle).
2. Select **Comments**.
3. Select **Edit** and make the necessary changes.
4. Select **Apply to subsequent years**, if applicable.
5. Select **Save**.

To delete a notation key explanation:

1. Select **the cell** for which the notation key explanation is to be deleted (all cells containing notation key explanations will include a green triangle).
2. Select **Comments**.
3. Select **Delete**.

The screenshot shows a 'Comments' section with a header bar containing navigation tabs: 'Party comments', 'User comment', 'NK Category', 'Allocation by IPCC', 'Allocation by Party', and 'NK Explanation'. The main content area displays the comment 'Included under organic'. At the bottom, there is an information icon and the text 'This explanation will appear in the reporting table Table9. All users within your Party can see it.' To the right of this text is a red-bordered box containing 'Edit' and 'Delete' buttons.



4.5 Footnotes

Footnotes are static text based on the footnotes in the agreed reporting tables and appear in the bottom right-hand corner of the relevant data entry grids. Note that some of the agreed tables of the CRT contain multiple worksheets and the footnotes are listed below the final worksheet of that table.

The user can easily identify the cells in the data entry grids because there will be a blue box in the lower right-hand corner of the cell indicating the presence of a footnote. The footnotes from the CRT can then be found by selecting **Footnotes** at the bottom of the data entry grid.

To view the footnotes:

1. Navigate to **Data entry** in the **Header bar** and **select a category** that has a footnote associated with it in the agreed CRT.
2. Identify the specific cells containing a footnote in the agreed CRT, through either the numerical reference to the footnote, or the blue square.
3. Select **Footnotes** from the bottom of the data entry grid.
4. Select **Selected cell** to view the footnote associated with the selected cell or **All default footnotes** to view all footnotes associated with the table to which the cell belongs.
5. Click on **Footnotes** again, or anywhere in the data entry grid, to hide the footnotes section.

1. Energy¹ 1

Expand all

Show/hide years

Export

...	Description	Unit	1990	1991	1992	1993	1994
01	Method ^{4,5}						
02	CO ₂ ²				NA	NA	NA
03	CH ₄ ³						
04	N ₂ O ³						
05	Emission factor information ¹						
06	CO ₂				NA	NA	NA
07	CH ₄						
08	N ₂ O						

Comments

Footnotes

Selected cell All default footnotes

V. Quality Assurance/ Quality Control

This page enables the user to see the results of the **key category analysis**, calculated applying the IPCC Approach 1. The results show the contribution of each category-gas combination to the totals CO₂ equivalent emissions, with and without LULUCF, for both level and trend.

To review the results of the Key Category Analysis:

1. Select **QA/QC** from the **Header Bar**.
2. Select **Key Category Analysis**.
3. **Select year** from the dropdown to review the key category results for the year of interest.

The threshold for the key category analysis, identified at the top of the page, is determined by the selection made by the user in the version settings (see section [3.1.2.1 Flexibility Provisions](#)).

Key category analysis (KCA)

Threshold used in identifying the key categories: 95% Select year 1990

Total CO₂ equivalent emissions:

Without LULUCF 77,552,224.15 ktCO₂ eq With LULUCF 77,251,960.33 ktCO₂ eq

Total CO₂ equivalent emissions, including indirect CO₂:

Without LULUCF 77,552,224.15 ktCO₂ eq With LULUCF 77,251,960.33 ktCO₂ eq

Filters (0)

Key categories of emissions and removals	Gas	Emissions/removals (ktCO ₂ eq)	Level (%) without LULUCF	Trend (%) without LULUCF	Key category without LULUCF	Level (%) with LULUCF	Trend (%) with LULUCF	Key category with LULUCF
1.A.1 Fuel combustion - Energy Industries - Liquid Fuels	CO ₂	12,102,98	0,0			0,0		
1.A.1 Fuel combustion - Energy Industries - Liquid Fuels	CH ₄	16,25	0,0			0,0		
1.A.1 Fuel combustion - Energy Industries - Liquid Fuels	N ₂ O	23,76	0,0			0,0		
1.A.1 Fuel combustion - Energy Industries - Solid Fuels	CO ₂	41,508,53	0,1			0,1		
1.A.1 Fuel combustion - Energy Industries - Solid Fuels	CH ₄	10,99	0,0			0,0		
1.A.1 Fuel combustion - Energy Industries - Solid Fuels	N ₂ O	154,94	0,0			0,0		
1.A.1 Fuel combustion - Energy Industries - Gaseous Fuels	CO ₂	3,072,72	0,0			0,0		
1.A.1 Fuel combustion - Energy Industries - Gaseous Fuels	CH ₄	1,55	0,0			0,0		
1.A.1 Fuel combustion - Energy Industries - Gaseous Fuels	N ₂ O	1,46	0,0			0,0		
1.A.1 Fuel combustion - Energy Industries - Other Fossil Fuels	CO ₂	2,330,27	0,0			0,0		
1.A.1 Fuel combustion - Energy Industries - Other Fossil Fuels	CH ₄	18,38	0,0			0,0		
1.A.1 Fuel combustion - Energy Industries - Other Fossil Fuels	N ₂ O	23,19	0,0			0,0		
1.A.1 Fuel combustion - Energy Industries - Peat	CO ₂	2,330,47	0,0			0,0		
1.A.1 Fuel combustion - Energy Industries - Peat	CH ₄	0,62	0,0			0,0		
1.A.1 Fuel combustion - Energy Industries - Peat	N ₂ O	8,83	0,0			0,0		

Additional quality checks are still under development and will be implemented in future releases.



VI. Submission

Official submission of the CRTs will be through the National Reports Submission Portal (NRSP). This feature will be implemented in a future release. A separate user guide on the NRSP use will be available at <https://unfccc.int/etf-reporting-tools-help>.

In the interim, users may download the CRTs (see section [4.3 Generate Common Reporting Tables](#)) and submit them via email to the UNFCCC at etf-reporting@unfccc.int.

VII. Abbreviations and Acronyms

The following abbreviations and acronyms are used in this manual.

AD	activity data
C	confidential
CMA	Conference of the Parties serving as the meeting of the Parties to the Paris Agreement
CRT	common reporting tables
CTF	common tabular formats
EF	emission factor
ETF	enhanced transparency framework
F-gases	fluorinated gases
GCV	gross calorific value
GHG	greenhouse gas
HWP	harvested wood products
IE	included elsewhere
IEF	implied emission factor
IPCC	Intergovernmental Panel on Climate Change
IPPU	industrial processes and product use
.json	JavaScript Object Notation (open data interchange format)
KCA	key category analysis
LULUCF	land use, land use change and forestry
MPGs	Modalities, Procedures and Guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement
NCV	net calorific value
NA	not applicable
NE	not estimated
NK	notation key
NO	not occurring
UNFCCC	United Nations Framework Convention on Climate Change