IPCC Inventory Software

UNFCCC Interoperability – CRT Export Quick Start Guide

Version 1, March 2025

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This Guidebook is prepared by IPCC TFI TSU.
It has not been subject to the formal IPCC review process.
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1. Introduction

As of version v2.86, the IPCC Inventory Software (hereafter, *Software*) can prepare a JSON data exchange format file for export of data from the IPCC Inventory Software into the United Nations Framework Convention on Climate Change (UNFCCC) ETF Reporting Tool for the electronic reporting of the Common Reporting Tables (CRT) under the Paris Agreement. The interface is accessible from the Main Menu / Export / UNFCCC CRT.

This export functionality has been added to the *Software* following the invitation of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement to the IPCC.[1] In the end of 2024, Parties asked the UNFCCC, in cooperation with the IPCC, to main interoperability between the two tools.[2]

In this **guide** to **UNFCCC CRTs export**, guidance is provided by the Technical Support Unit of the IPCC Task Force on National Greenhouse Gas Inventories (TFI TSU). For more detailed information on all steps described in this manual, refer to the Manual for Inventory compilers, available at https://www.ipcc-nggip.iges.or.jp/software/index.html.

2. CRT Data Set Manager

2.1 What is CRT Data Set

A CRT Data Set represents a particular instance of CRT export which holds CRT Tables with data for the set of years that were selected during CRT Data Set creation. The *Software* allows maintaining multiple CRT Data Sets that are independent of each other and thus can be managed and exported to JSON independently.

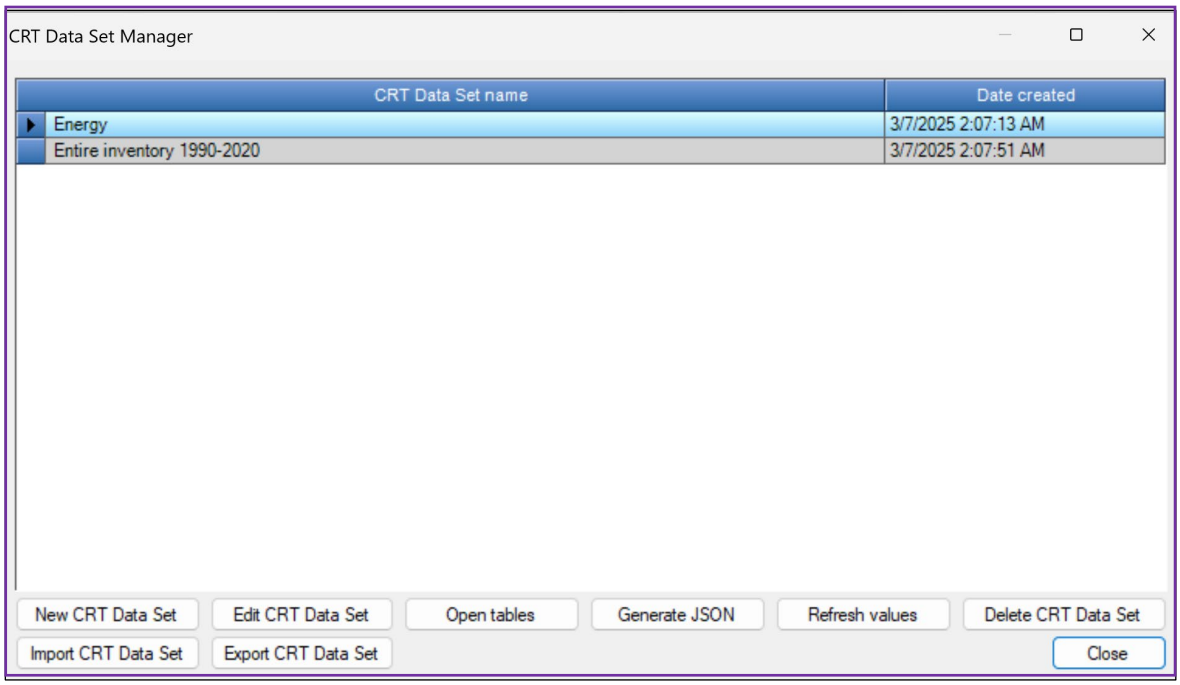
Note that CRT Data Set does not represent real-time data in the underlying IPCC Worksheets but rather is a snapshot of that data made at a certain time (e.g., during creation of the CRT Data Set, or later by manually refreshing values). This means that any changes made to data in IPCC Worksheets are not automatically propagated to existing CRT Data Sets!

2.2 CRT Data Set Manager screen

This screen is designed for CRT Data Set management. It provides the following functionality:

- Create **New CRT Data Set**
- **Edit** properties of existing CRT Data Set
- **Open tables** interface that visualizes the CRT and allows managing data across sectors and years for the selected CRT Data Set
- **Generate JSON** (export format) for selected CRT Data Set
- **Refresh values** – compile CRT Variable values from *Software* worksheet data for selected CRT Data Set
- **Delete** existing CRT Data Set
- **Export CRT Data Set** in XML format
- **Import CRT Data Set** in XML format

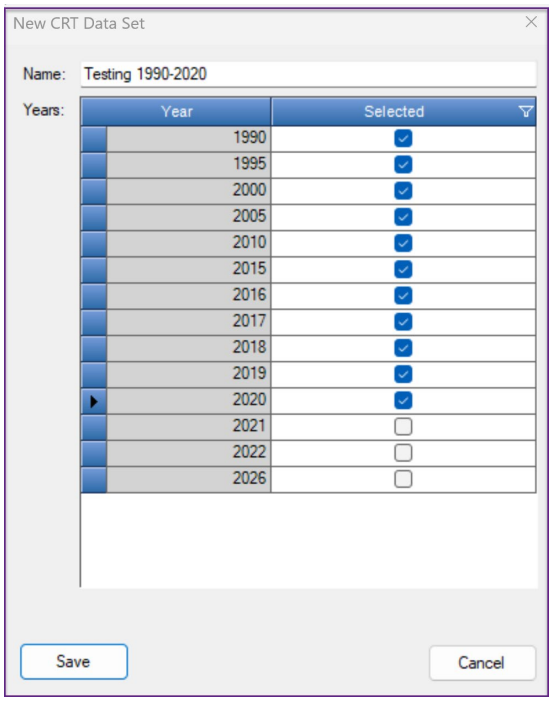
[1] Decision 5/CMA.3, paragraphs 19 and 20.
2 Para. 5 of FCCC/SBSTA/2024/L.12 (November 2024)



Except for "**New CRT Data Set**" button, all the action buttons at the bottom of the table always apply to the currently selected CRT Data Set in table (i.e. highlighted).

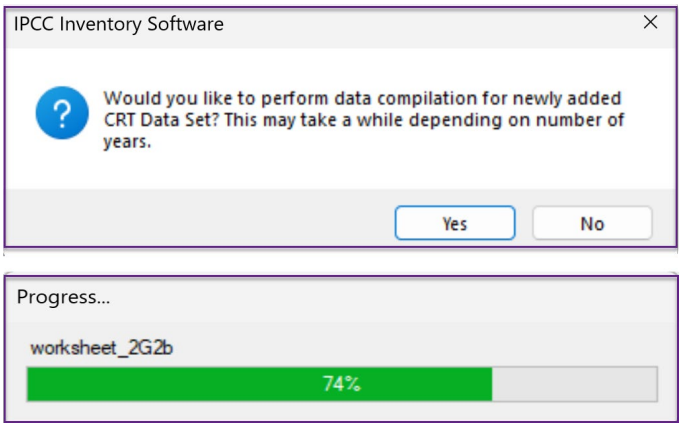
2.2.1 New CRT Data Set

This action button opens a screen where properties of the new CRT Data Set are specified.



- Name – name of new CRT Data Set
- Years – inventory years assigned to new CRT Data Set

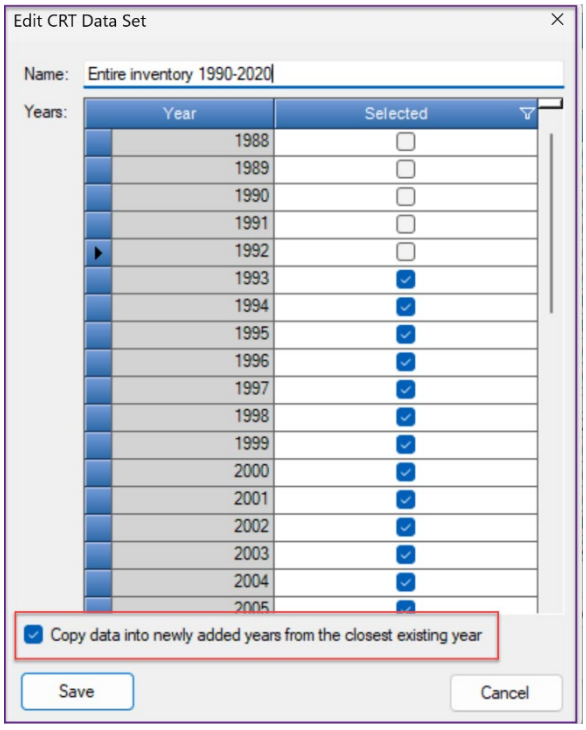
After pressing **Save**, a new data set is created and the user is prompted whether to feed data into the CRT of the new data set. This operation can be postponed and carried out later at various levels (at sector level, table level, cell level, multiple cell selection level)



2.2.2 Edit CRT Data Set

This action button opens a screen where properties of an existing CRT Data Set can be adjusted.

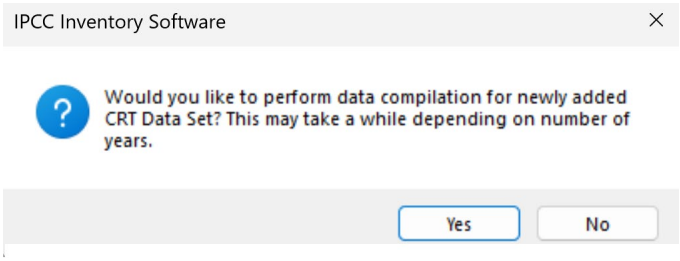
- **Name** – can be changed, if necessary
- **Years** – user may a**dd /remove years** from an existing CRT Data Set by checking and unchecking years, respectively.



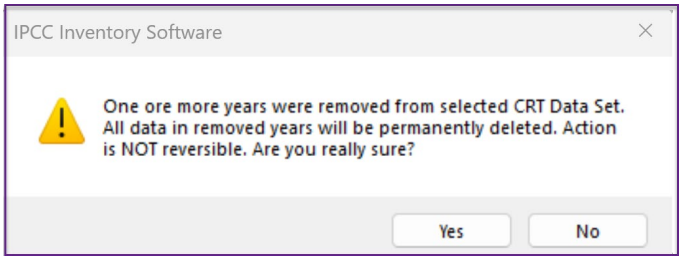
If **Copy data into newly added years from the closest existing year** is selected, newly added years will be filled with existing data from the closest (previous) existing year in the data set (including all notation key explanations, comments, documentation, etc.).

This feature may be of interest to users after the generation of the IPCC JSON for the first BTR. To create a subsequent inventory, the *Software* has a feature to create a new GHG inventory year from the current year. This feature for **Copy data into newly added years** accomplishes a similar task, but for the CRT data set.

After adding new years and saving the data set, the user is prompted to confirm the feeding of data into the CRT tables for newly added years within all sectors.

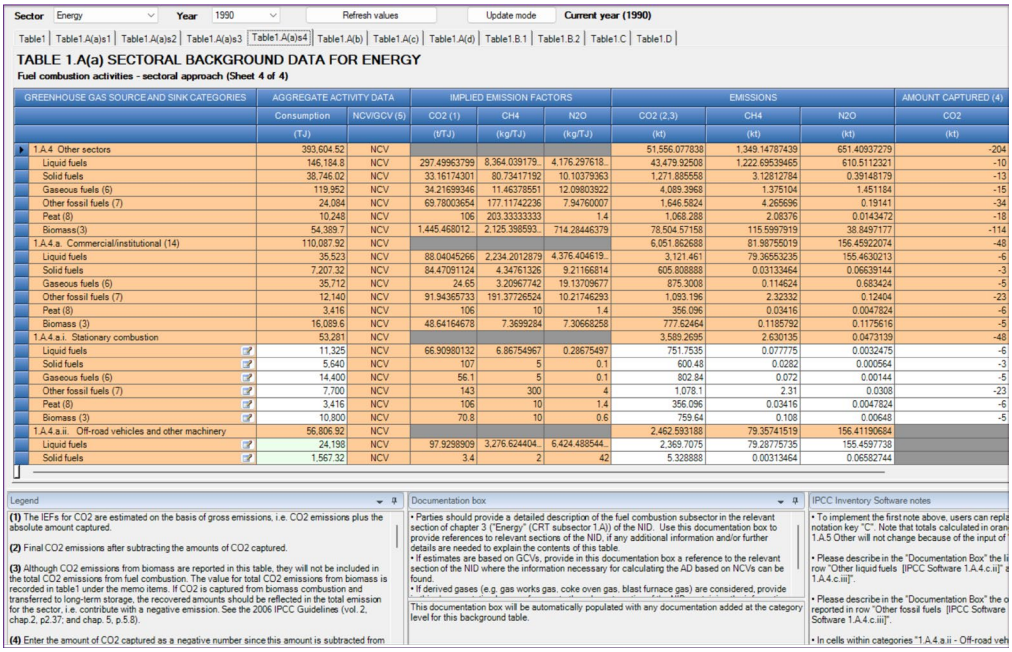


When deleting existing years the user is prompted to acknowledge that all data belonging to removed years will be permanently deleted from the CRT Data Set. Note that this will not in any way impact the underlying data in the *Software* database.



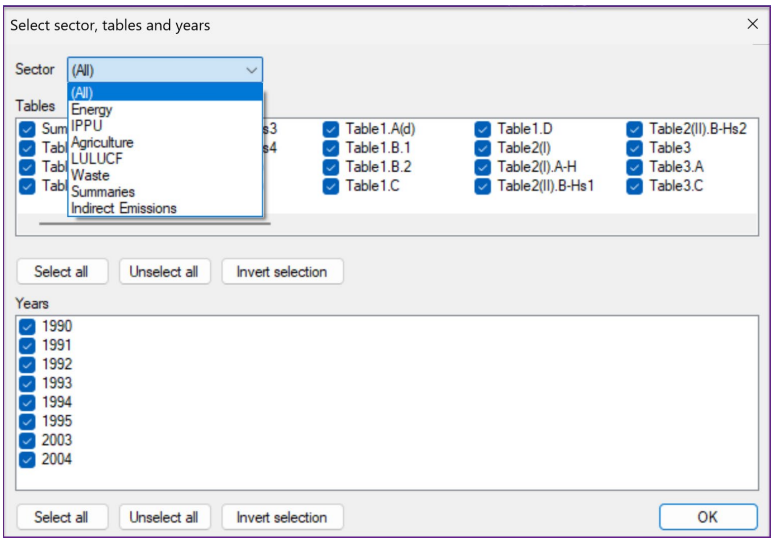
2.2.3 Open tables

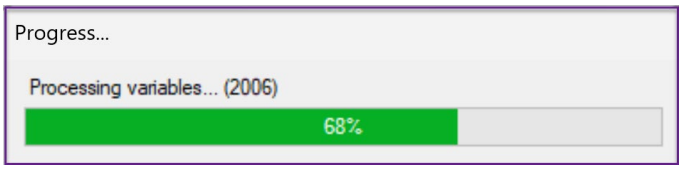
This action button opens a screen containing the visualized CRT for the currently selected CRT Data Set. This screen will open in a mode that allows the user to switch between itself and other *Software* screens (e.g. Worksheets screen). Only one visualized CRT screen for one CRT Data Set can be open at a time. Refer to the "CRT Tables" chapter for more information on CRT Tables screen in Open Tables and its functions.

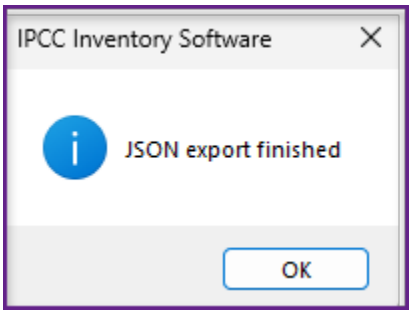


2.2.4 Generate JSON

This action button serves the purpose of generating an export in JSON format. All CRT belonging to the selected CRT Data Set will be serialized into the JSON file for either all sectors or a specific sector, for all or selected tables, and for selected years.

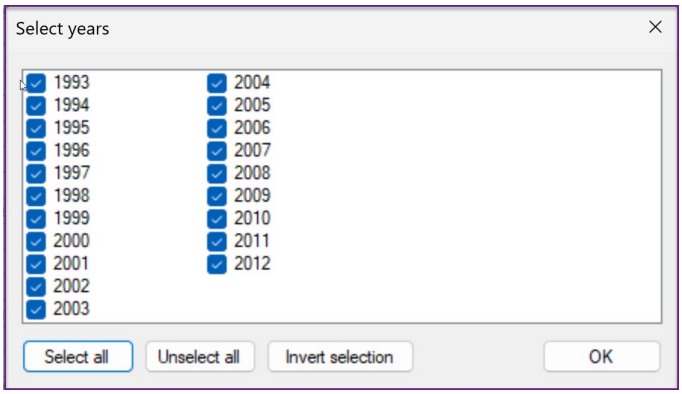


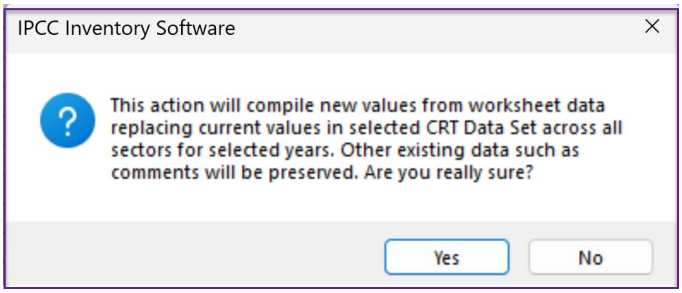


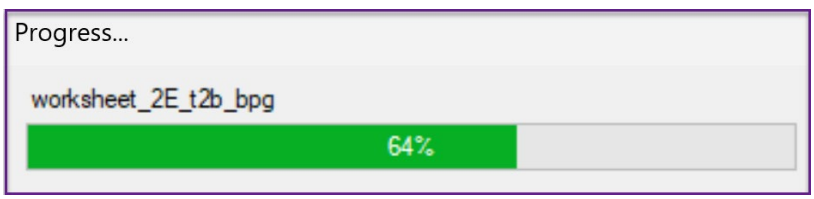


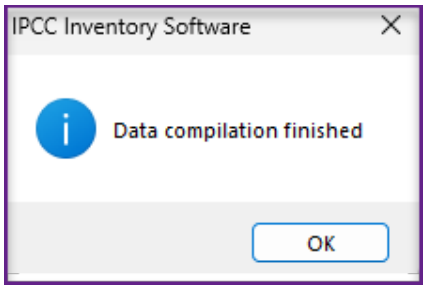
2.2.5 Refresh values

This action button allows refreshing all CRT Variable values within the selected CRT Data Set for all sectors and selected years. Fresh values are compiled from the *Software* worksheets replacing current CRT Variable values. Other information that was already added by the user such as selection of notation keys, notation key explanations, designation of confidentiality, comments and information for documentation boxes will be preserved.



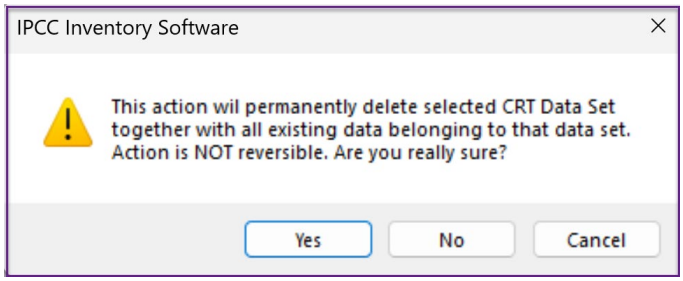






2.2.6 Delete CRT Data Set

This action will permanently delete the selected CRT Data Set together with all data in all CRT Tables of that CRT Data Set. This action is not reversible in the CRT Data Set Manager. Note that this will not in any way impact the underlying data in the *Software* database.

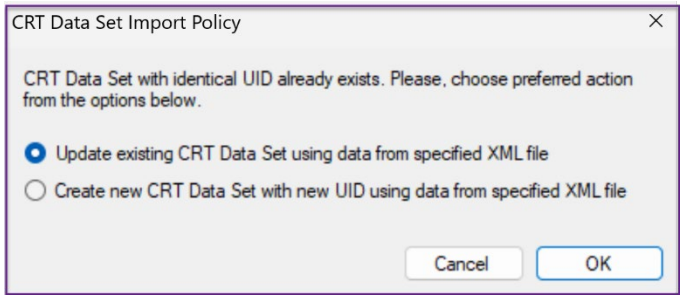


2.2.7 Export CRT Data Set

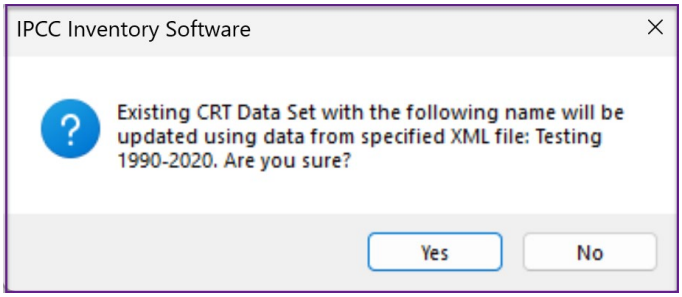
This action allows the creation of an XML file with complete representation (i.e. all sectors, all years) of a single CRT Data Set that can be transferred and imported into any other IPCC Software database. The exported file is saved to the user's computer.

2.2.8 Import CRT Data Set

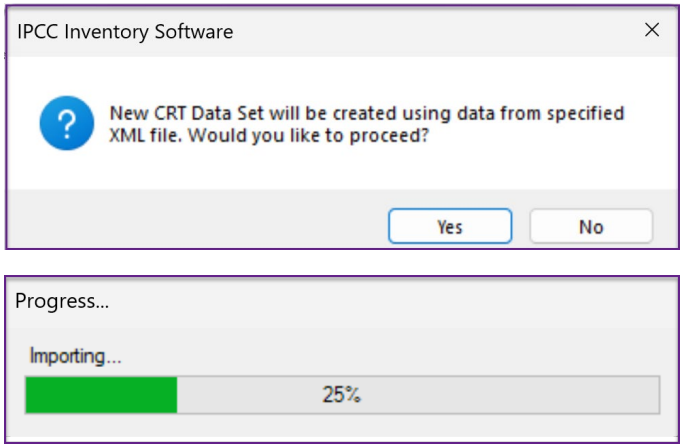
This action allows the importation of an XML file containing full representation (i.e. all sectors, all years) of a single CRT Data Set that was created using the export function described above. If a CRT Data Set with the same UID (i.e. name) already exists in the target database, the user is prompted to choose one of the following options.



1) **Update existing CRT Data Set using data from specified XML file** – data of existing CRT data set will be updated using data from the XML file

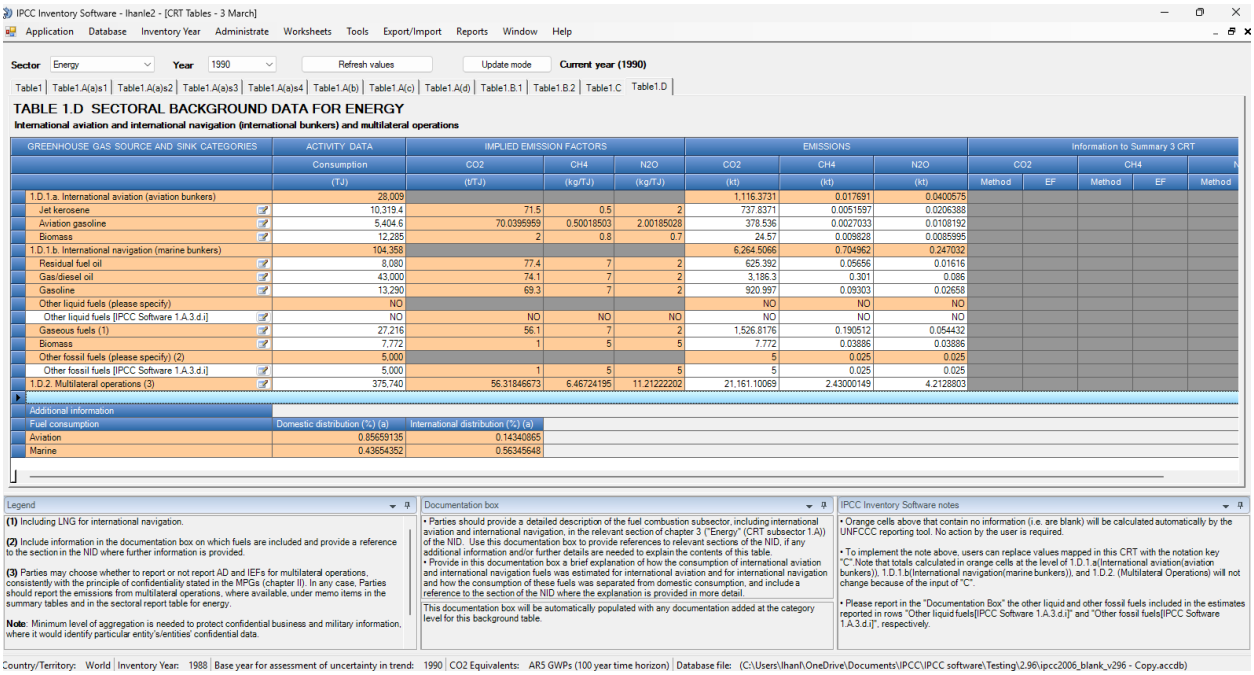


2) **Create new CRT Data Set with new UID using data from specified XML file** – a new CRT Data Set will be created with newly generated name leaving the existing CRT Data Set intact.



3. CRT Tables

The visualized tables of the CRT can be opened using the "Open tables" button in the CRT Data Set Manager for the selected CRT Data Set. An alternative way to open the tables is to double-click the desired CRT Data Set row in the CRT Data Set Manager table. Only one CRT Tables screen of one CRT Data Set can be open at a time.



CRT Tables screen consists of the following elements.

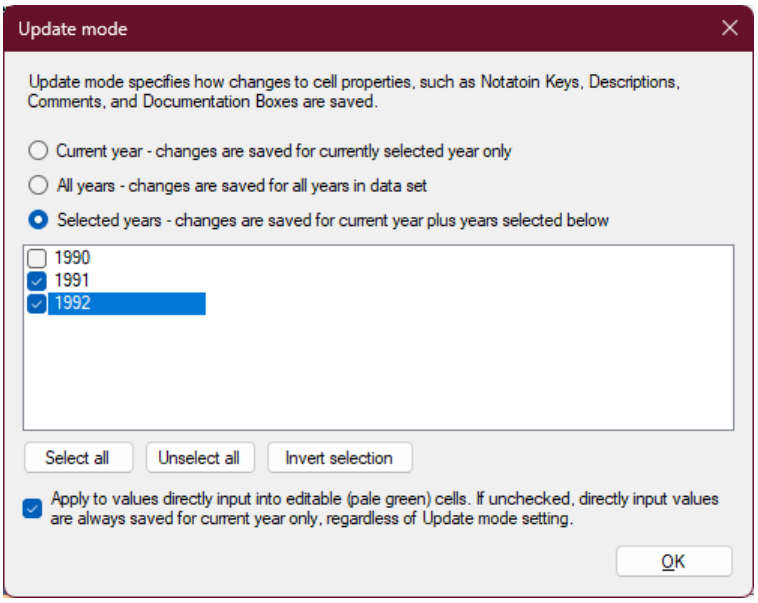
- Window title – contains the name of selected CRT Data Set.
- Sector – currently selected sector. The complete set of tables is presented according to the selected Sector.
- Year – currently selected year from the list of years that belong to selected CRT Data Set.
- Refresh values – allows refreshing values from the *Software* worksheets for all tables in the selected sector and for years selected by user.
- Update mode – specifies how changes to cell parameters such as Descriptions, Comments, Notation Keys, etc., are saved.
- Tabbed interface – allows switching between tables belonging to the selected sector.
- Documentation area – relevant for the currently selected table. Contains Legend, Documentation box, IPCC Inventory Software notes and other relevant information. Documentation area windows can be rearranged according to user preference. Note that as of version 2.96 documentation for a specific category can be input using the edit box next to the category name.

3.1 CRT Table actions

For each CRT Variable in a CRT Table there are several actions. Actions can be performed for a single cell as well as for a selection of cells.

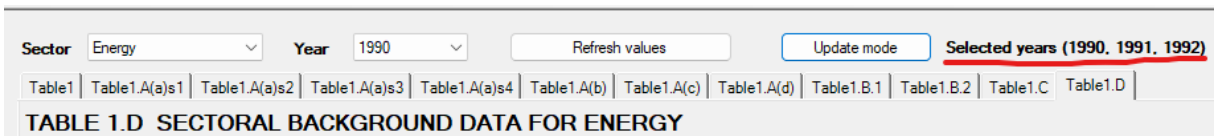
3.1.1 Update mode

Update mode specifies how changes to cell properties, such as Notation Keys, Descriptions, Comments, and Tables' Documentation Boxes are saved. Before starting to make changes to cell properties it is advised to check and adjust Update mode according to preference, by clicking the Update mode button located at the top of the CRT Tables screen. Clicking the button opens the Update mode dialog, where the preferred mode can be selected.



- **Current year** – changes are saved for year that is currently selected in Year dropdown at the top of the CRT Tables screen.
- **All years** – changes are saved for all years in the current CRT Data Set
- **Selected years** – changes are saved for the year currently selected in Year dropdown and additionally for other selected years.
- **Apply to values directly input into editable (pale green) cells** – some cells allow direct input of values. When this option is checked, selected update mode also applies to values directly input into such editable cells. If unchecked, directly input values are always saved for currently selected year only, regardless of Update mode setting.

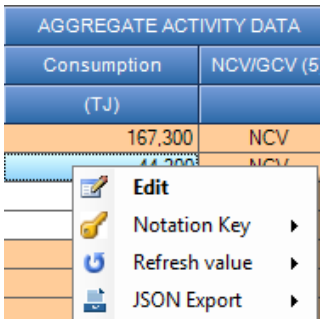
The currently selected Update mode setting is applied to and maintained for the current CRT Tables session only, and thus is reset back to default when the CRT Tables screen is closed. The currently selected Update mode is indicated at the top of the CRT Tables screen, next to the Update mode button.



Note that in case of any multi-year update mode, changes are always applied contextually. For example, if a cell has a numeric value in year X while having a Notation Key in year Y, changing Notation Key in year Y will not affect the value in year X. In other words, changes to cells across years are applied only if they are applicable based on the cell status in the given year.

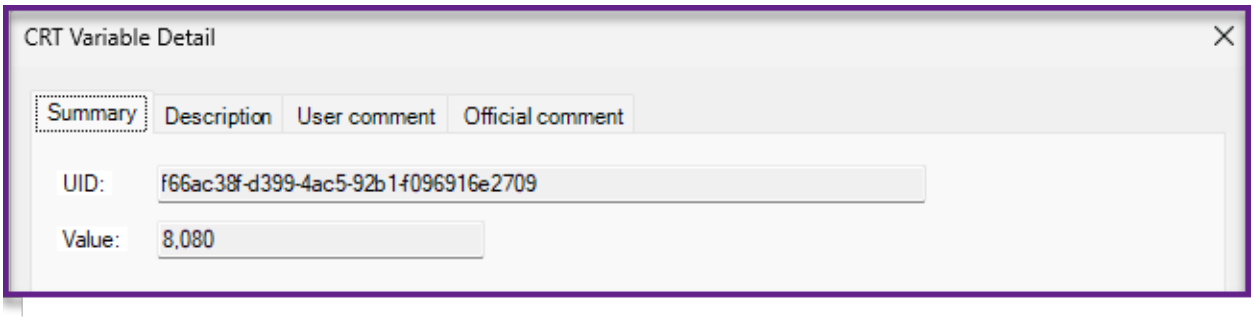
3.1.2 Single-cell actions

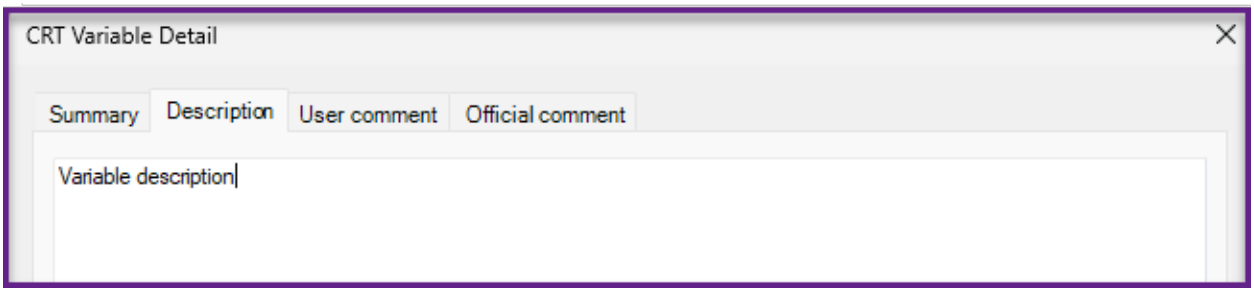
Right click on any cell that represents a CRT Variable to open a context menu with actions that are relevant for the selected CRT Variable. Completion of these details provides information for inclusion in the UNFCCC CRT.



3.1.2.1 Edit

Opens a CRT Variable detail dialog with all information relevant for the type of selected CRT Variable. Detail dialog can be alternatively opened by double-clicking on a cell. Standard numeric variable detail dialog is shown below.



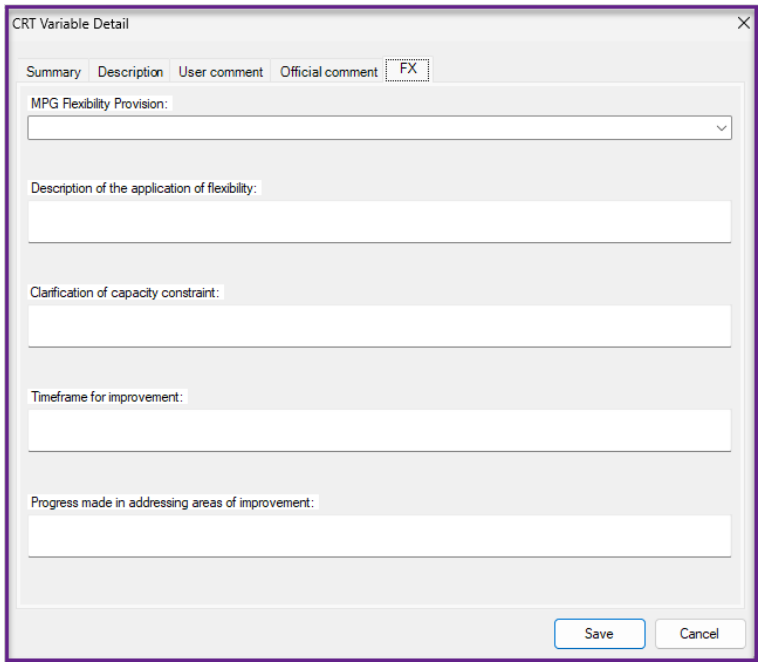


- Summary – contains basic information such as UID and current value
- Description – description of variable; this field is automatically populated only in limited cases, where the worksheet allows for data entry of a description/process
- User comment - allows entry of a comment viewable only by users accessing the current CRT Data Set

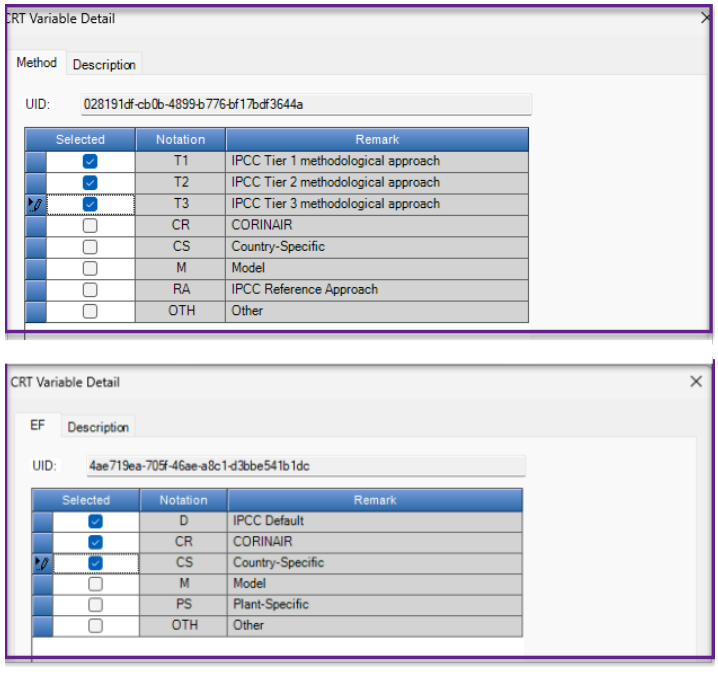
- Official comment -allows entry of an official comment that will be transferred to the UNFCCC ETF Reporting Tool, upon upload in that tool

The user can enter this additional information independently for every CRT Variable cell in every CRT Table.

In case of a CRT Variable that has a Notation Key instead of a numeric value, additional information that is relevant for the selected Notation Key becomes available. Example for the FX (flexibility) variable below.

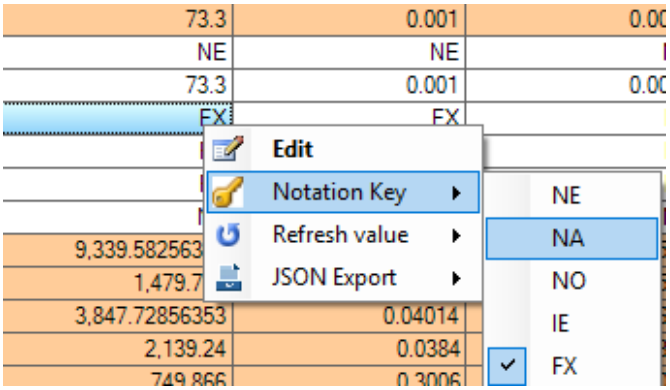


Example of detail dialog for "Method" and "EF" CRT Variable:

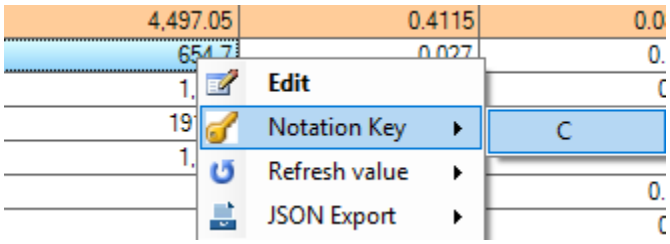


3.1.2.2 Notation Key

This menu item contains a list of possible Notation Keys that can be set for the CRT Variable. If a cell already contains one of the notation keys instead of a numeric value, then the list of possible notation keys is as follows:



In case of cells that contain a numeric value the list of notation keys contains only one item – C (Confidential) allowing a user to mark that CRT Variable as Confidential.

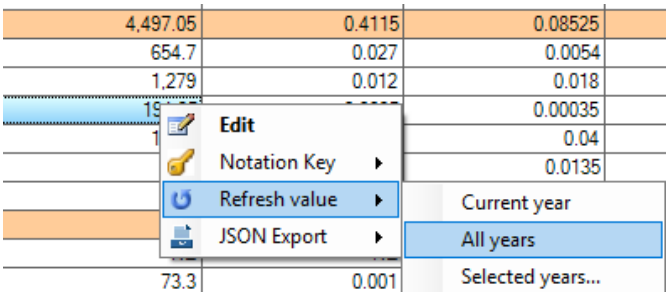


A "C" flag is added as suffix to the numeric value. While the value in the confidential cell is still visible in the *Software* it WILL NOT be exported in JSON. Choosing "C" on a cell that already has "C" flag will remove it.

Note, that owing to the structure of the CRT, and the aggregation of AD and emissions from a category level to the sector level, if only one or two categories are labelled "C" it is possible, in some instances, that the information could be back calculated. The *Software* allows a "C" up to a certain level of aggregation to minimize these chances. It is the user's responsibility to understand the mapping of "C" information, and to review the imported data in the UNFCCC ETF Reporting Tool to ensure that all emissions have transferred for a complete GHG Inventory. For more information, refer to the annex of the Manual for Inventory Compilers, available on the IPCC Inventory Software webpage.

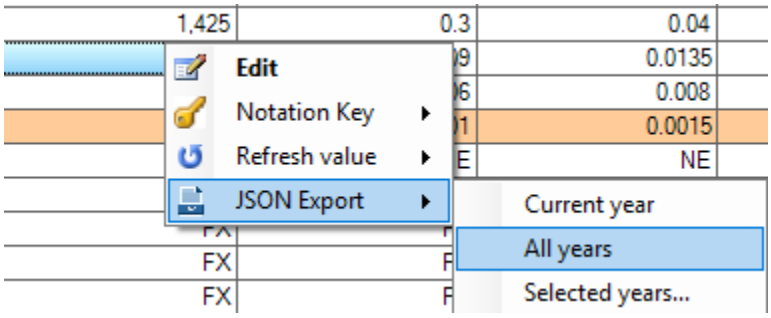
3.1.2.3 Refresh value

This action allows refreshing the CRT Variable with the latest relevant *Software* worksheet value. This action can be performed for the current year, all years in data set or only years explicitly selected by user.



3.1.2.4 JSON Export

This action allows exporting a CRT Variable into JSON file. The action can be performed for the current year, all years in the CRT Data Set or only years explicitly selected by the user.



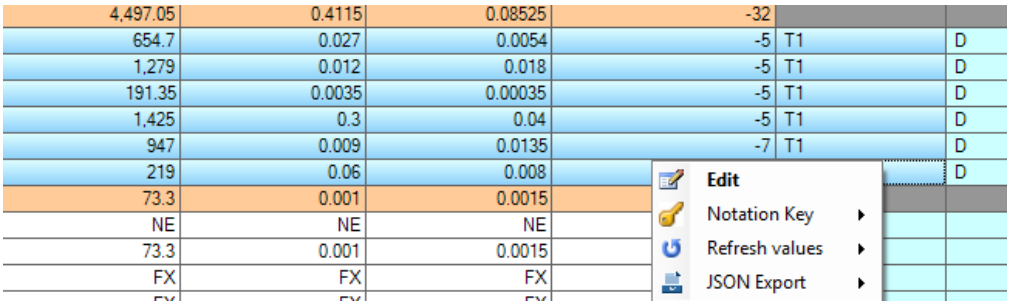
3.1.3 Multi-cell actions

The CRT Table interface allows performing actions on multiple selected cells at once. This way it is possible to e.g. set the same explanations or comments for several cells without editing each cell individually.

Multiple cells can be selected utilizing various techniques.

- Left click and hold on starting cell and drag mouse pointer to select additional cells;
- Left click on column header to select single column or left click, hold and drag to select multiple columns and all of their cells;
- Left click on row header to select single row or left click, hold and drag to select multiple rows and all of their cells;
- Hold CTRL and left click on individual cells to be selected;
- Click on start cell, hold SHIFT and then click on end cell to select area of cells.

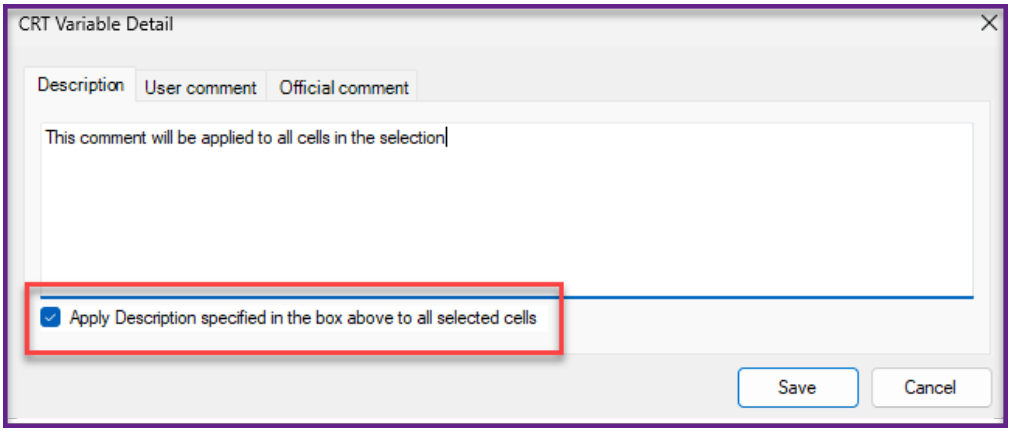
Selected cells are highlighted. In case the selection contains at least one CRT Variable cell, right click anywhere within the selection will open the context menu that applies to the selection.



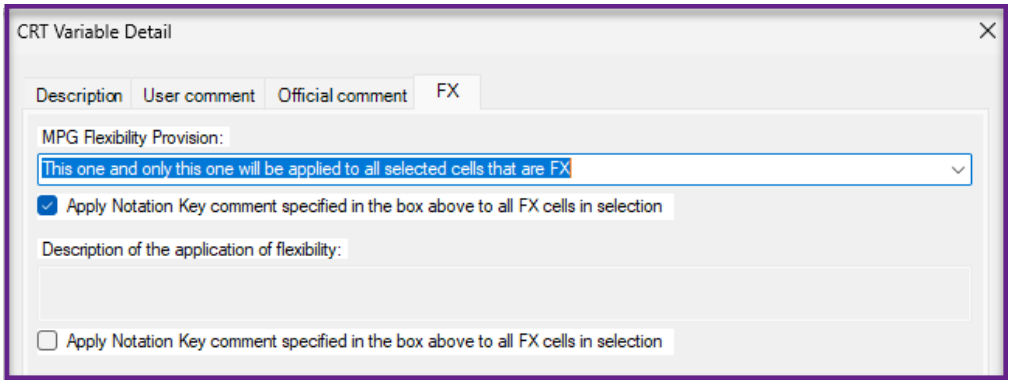
3.1.3.1 Edit

Opens a detail dialog box for the selected cells in multi-cell mode. The detail dialog is constructed based on the types of cells that are in the selection. This means all relevant tabs will be shown within the detail dialog. (e.g. if selection contains "Method" and "EF" cell, "Method" and "EF" tabs will become available).

User must explicitly flag which information entered in the multi-cell detail dialog should be applied to selected cells. This way it is possible to bulk-update only specific types of information while leaving other information in selected cells intact. Example: If only "Official comment" should be updated in all selected cells then the user explicitly marks that comment using a dedicated checkbox and then inputs a new value for that comment (see screenshot below).



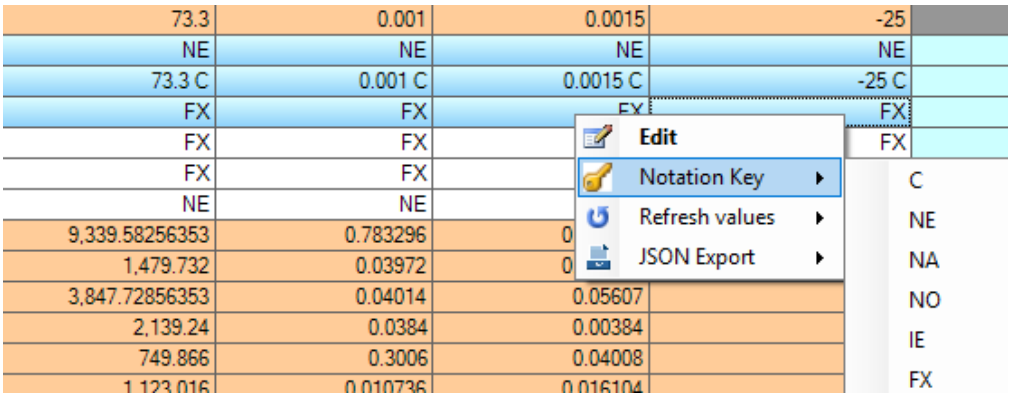
In the multi-cell detail dialog box, each piece of information has its dedicated "Apply" checkbox. Example for FX related comments below where only "MPG Flexibility Provision" was marked to be updated within all FX cells in the selection of cells.



Note, that every piece of information will be applied to cells in the selection only in case it is relevant for that cell. (e.g. FX comments will be applied only to those cells in the selection that are FX).

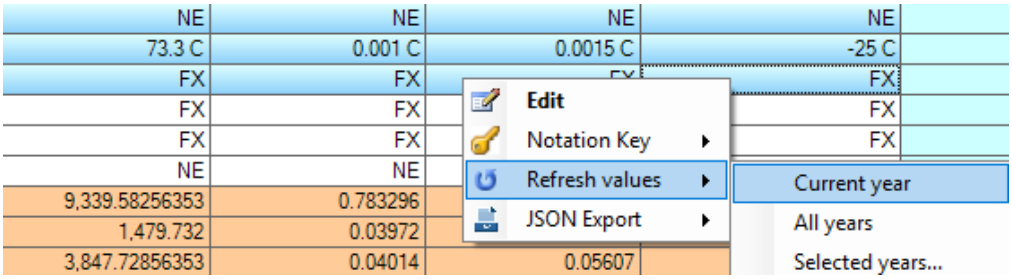
3.1.3.2 Notation key

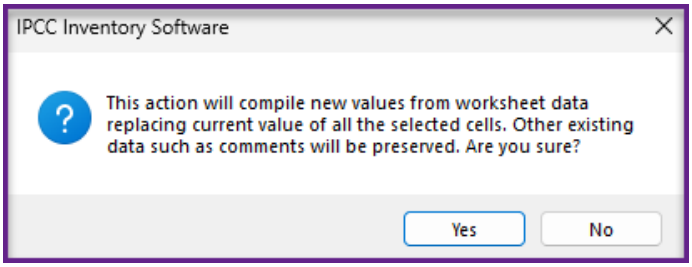
Allows the user to set the same Notation Key for all cells in the selection. The rules are analogous to those in "Edit" action and thus selected Notation Key will be applied only to relevant cells. (e.g. if C is selected, only cells containing real numeric value will be marked as C).



3.1.3.3 Refresh values

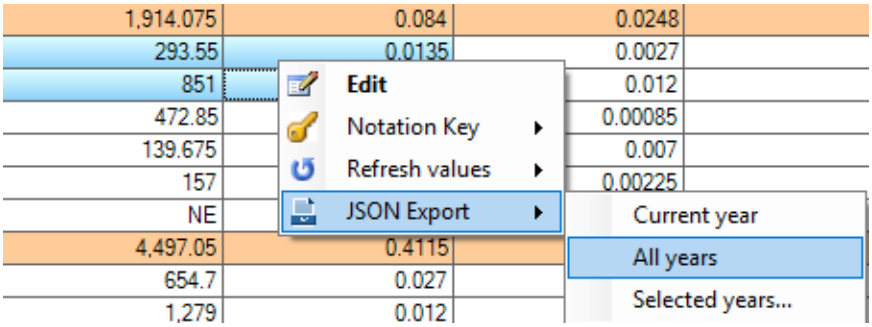
Allows refreshing values from the *Software* worksheets for all selected cells for either the current year, all years in the CRT data set or for years explicitly selected by user.





3.1.3.4 JSON Export

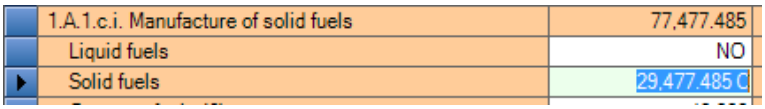
Allows exporting selected cells into JSON file for either current year, all years in data set or for years explicitly selected by user.



3.1.4 Editable cells

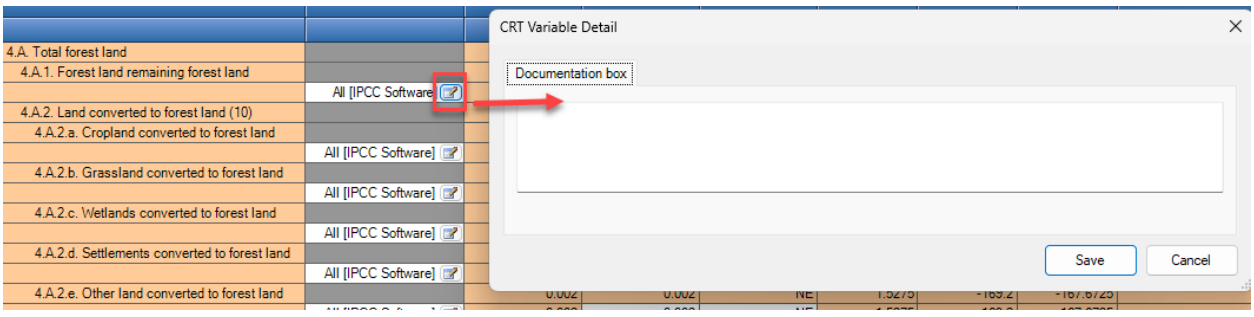
Some cells highlighted with pale green color allow direct editing of the cell. The user is allowed to change the value of such cells or set a notation key by direct input.

- To enter a numeric value – type the numeric value directly into the cell. Value can be marked as confidential by entering "c" or "C" after the numeric value
- To enter a notation key – type in one of the relevant notation keys directly. Allowed notation keys: NE, NA, NO, IE, FX (can be typed lowercase in which case they will be automatically converted to upper case). Note that some of the cells do not allow to set these notation keys when there is value already present.



3.2 CRT Table Documentation Box

The user may specify additional textual information at the lowest CRT category level. Each documentation box has its dedicated UID thus it is exported to JSON just like any other CRT Variable.



4. Upload IPCC JSON in UNFCCC ETF Reporting Tool

After the user finalizes all additional information in the visualized CRT and generates the JSON, the file is ready for upload to the UNFCCC ETF Reporting Tool for GHG Inventory.

4.1 Uploading IPCC JSON

Upload instructions may be found in the user manual for the GHG inventory component of the UNFCCC ETF Reporting Tool (see Section 3 Getting Started in the User Manual: ETF GHG Inventory Reporting Tool).

4.1.2 Selecting Version Settings in the UNFCCC Reporting Tool

Version settings are related to a Party's decision on whether to apply the flexibility provisions, and if so, which ones, as well as settings related to reporting sector-specific GHG emissions and removals. This section provides guidance specific for users of the *Software*.

4.1.2.1 Flexibility provisions

From the User Manual: ETF GHG Inventory Reporting Tool

3.1.2.1 Flexibility Provisions

This version setting is mandatory and a response is required before proceeding. Parties should select **Yes** to the question "**Please specify if any flexibility provisions in light of national capacities will be used"** 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 (table to the right) 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.

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%.

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	Add Text
Clarification of capacity constraint	Add Text
Timeframe for improvement	Add Text
Progress made in addressing areas of improvement	Add Text

Specific tips for users of the IPCC Inventory Software regarding reporting on use of flexibility provisions:

- **General**: if the user intends to apply any flexibility provision, select "Yes" to the question *"Please specify if any flexibility provisions in light of national capacities will be used."* This allows the user to indicate which flexibility(ies) has/have been used, including those that do not impact the CRT (e.g. provisions related to QA/QC). **If the user selects "No" but has used "FX" in one or more cells of the visualized CRT in the IPCC Inventory Software, the "FX" will not import to UNFCCC. The cells will be blank after import.**

- **Para.58. Last year in time series. Selection in the UNFCCC ETF Reporting Tool should be consistent with years included in the IPCC JSON; selection will override years included in the IPCC JSON.** For example, if the IPCC JSON contains 1990 and 2015-2022, but the user indicates in version settings of the UNFCCC tool that flexibility has been applied for the last year in the time series (i.e. the year 2021 for the 2024 submission), then only 1990 and 2015-2021 will appear in the data entry grids.

- **Para.57. Annual Time Series. The selection here in the UNFCCC ETF Reporting Tool will override years included in the IPCC JSON.** For example, if the IPCC JSON contains 1990 and 2015-2022, but the user indicates in version settings of the UNFCCC tool that flexibility has been applied and only 2015-2022 will be reported, then 1990 will not appear in the data entry grids.

- **Para. 48. Reporting of F-gases.** If the user indicates he/she has applied this flexibility provision, they are asked for which gas(es) "FX" is/are to be used (HFCs, PFCs, SF_6 and NF_3). If any gas is selected here, the tool will automatically insert "FX" for all species of that gas and for all years of the time series. The user should ensure that the version setting selected here is consistent with the visualized CRT. **For example, if a user has applied "FX" for some years, but not all years in a time series for HFC-23, if the user applies this flexibility for "HFCs" in the version settings, values in the IPCC JSON will be overwritten with "FX". If only certain years of a time series contain "FX" the user should indicate yes to the very first question *"Please specify if any flexibility provisions in light of national capacities will be used",* but not check the box for application of para. 48.**

- **Para. 35 QA/QC Procedure, Para. 34 QA/QC Plan, and Para. 29 Uncertainty Assessment.** Selection of these flexibility provisions will not impact IPCC JSON import.

- **Para. 32. Insignificance Threshold.** If the user has added "FX" to the visualized CRT to indicate that a category is not reported because it is insignificant, then the user should check this box to indicate use of the flexibility. **Note that failing to check this box will not prevent the "FX" from importing, as long as the user selected "Yes" to the question *"Please specify if any flexibility provisions in light of national capacities will be used."*** Checking the box will enable the user to provide the general information for the Flex_Summary Table.

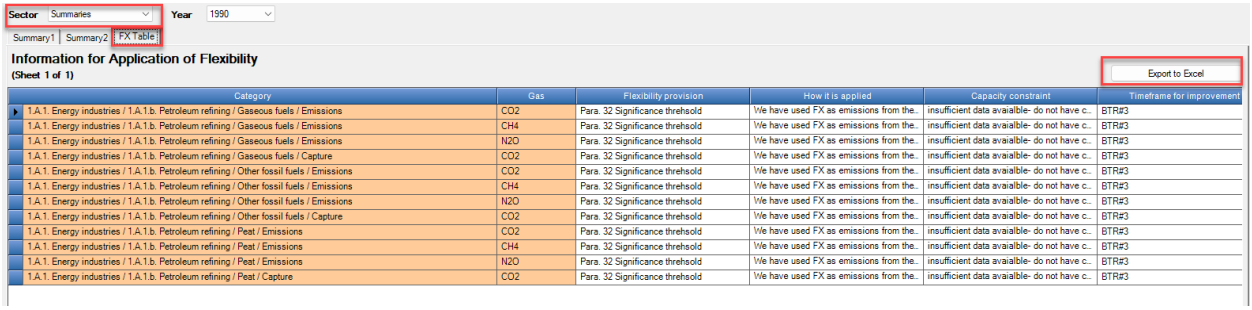
- **Para. 25. Key Category Analysis.** The user must check this box if they wish to apply a different threshold for calculation of the key category analysis in the UNFCCC ETF Reporting Tool. **The key category analysis in the IPCC Inventory Software is not included in the IPCC JSON for upload thus** selection of this flexibility provision will not impact IPCC JSON import.

Flex_Summary Table of the CRT

The UNFCCC ETF Reporting Tool populates the "Flex_Summary" Table of the CRT based on information entered by the user in the version settings of the UNFCCC ETF Reporting Tool (See the second table in the extract above from the UNFCCC user manual– a separate table for data entry is provided for each flexibility provision in the UNFCCC tool.). Information in the UNFCCC tool is provided at the provision level of the Modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement (MPGs).

The *IPCC Inventory Software* will provide users with the opportunity to provide the information requested in paragraph 6 of the MPGs for each instance where "FX" is added (e.g. for each category/gas combination). This category/level gas information is not accepted in the UNFCCC ETF Reporting Tool but will be downloadable and could be included in the National Inventory Document or BTR, if desired.

For users that have entered explanatory information for use of FX, a table compiling this information can be downloaded into Excel from Open Tables → /Sector = Summaries → FX Table -→ Export to Excel



Category	Gas	Flexibility provision	How it is applied	Capacity constraint	Timeframe for improvement
1.A.1. Energy industries / 1.A.1.b. Petroleum refining / Gaseous fuels / Emissions	CO2	Para. 32 Significance threhsold	We have used FX as emissions from the..	insufficient data avaialble- do not have c..	BTR#3
1.A.1. Energy industries / 1.A.1.b. Petroleum refining / Gaseous fuels / Emissions	CH4	Para. 32 Significance threhsold	We have used FX as emissions from the..	insufficient data avaialble- do not have c..	BTR#3
1.A.1. Energy industries / 1.A.1.b. Petroleum refining / Gaseous fuels / Emissions	N2O	Para. 32 Significance threhsold	We have used FX as emissions from the..	insufficient data avaialble- do not have c..	BTR#3
1.A.1. Energy industries / 1.A.1.b. Petroleum refining / Gaseous fuels / Capture	CO2	Para. 32 Significance threhsold	We have used FX as emissions from the..	insufficient data avaialble- do not have c..	BTR#3
1.A.1. Energy industries / 1.A.1.b. Petroleum refining / Other fossil fuels / Emissions	CO2	Para. 32 Significance threhsold	We have used FX as emissions from the..	insufficient data avaialble- do not have c..	BTR#3
1.A.1. Energy industries / 1.A.1.b. Petroleum refining / Other fossil fuels / Emissions	CH4	Para. 32 Significance threhsold	We have used FX as emissions from the..	insufficient data avaialble- do not have c..	BTR#3
1.A.1. Energy industries / 1.A.1.b. Petroleum refining / Other fossil fuels / Emissions	N2O	Para. 32 Significance threhsold	We have used FX as emissions from the..	insufficient data avaialble- do not have c..	BTR#3
1.A.1. Energy industries / 1.A.1.b. Petroleum refining / Other fossil fuels / Capture	CO2	Para. 32 Significance threhsold	We have used FX as emissions from the..	insufficient data avaialble- do not have c..	BTR#3
1.A.1. Energy industries / 1.A.1.b. Petroleum refining / Peat / Emissions	CO2	Para. 32 Significance threhsold	We have used FX as emissions from the..	insufficient data avaialble- do not have c..	BTR#3
1.A.1. Energy industries / 1.A.1.b. Petroleum refining / Peat / Emissions	CH4	Para. 32 Significance threhsold	We have used FX as emissions from the..	insufficient data avaialble- do not have c..	BTR#3
1.A.1. Energy industries / 1.A.1.b. Petroleum refining / Peat / Emissions	N2O	Para. 32 Significance threhsold	We have used FX as emissions from the..	insufficient data avaialble- do not have c..	BTR#3
1.A.1. Energy industries / 1.A.1.b. Petroleum refining / Peat / Capture	CO2	Para. 32 Significance threhsold	We have used FX as emissions from the..	insufficient data avaialble- do not have c..	BTR#3

4.1.2.2 Sector-related version Settings

The user selects sector-specific version settings in the UNFCCC ETF Reporting Tool when creating a GHG Inventory from the IPCC JSON. Table 1 below provides specific tips for users of the *Software*.

Table 1 Selecting Version Settings for Users of the IPCC Inventory Software

Version Settings	Explanation of Setting from Table 5 of UNFCCC User Manual	Specific tips for Users of the IPCC Inventory Software when Selecting Version Settings
Energy (version settings are optional)		
Specify the calorific value for fuels in category 1.A	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. If this setting is not activated, the user must enter the calorific value separately in all applicable data entry grids.	Users of the *Software* do not need to toggle on this version setting. The choice of NCV/GCV will transfer in the IPCC JSON. In fact, if a selection is made, it will overwrite the information in the IPCC JSON.
Specify fuel(s) that are not occurring ("NO")	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. 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.	Users of the *Software* do not need to toggle on this version setting. Notation keys added in the visualized CRT will transfer in the IPCC JSON. In fact, if a selection is made, it will overwrite information in the IPCC JSON.
IPPU (version setting are optional)		
F-Gas(es) that are not occurring ("NO")	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. 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.	Users of the *Software* do not need to toggle on this version setting. Notation keys added in the visualized CRT will transfer in the IPCC JSON. In fact, if a selection is made, it will overwrite information in the IPCC JSON.
Agriculture (version setting is mandatory)		
Cattle categorization	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)."	Users can see in Table 3.A, 3.B.a or 3.B(b) of the *Software* which option has been populated based on data entered (the non-selected version is automatically populated with "NA"). Failure to select the correct option prevents the IPCC data from importing.
LULUCF (version setting is 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. Approach B1:Production approach is selected by default, as all countries must provide estimates using the production approach, consistent with paragraph 56 of the MPGs.	Users input which approach(es) they wish to import. Even if the IPCC JSON contains all approaches, only the approach(es) selected in versions settings will import. The user must select which one is used for 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.	As described in the Annex on interoperability in the Land Representation Users' Guidebook, historical AD do not yet import into the UNFCCC ETF Reporting Tool. The user must select the relevant years here and enter the data directly in the UNFCCC tool.
Reporting information in Table4(II)	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".	Users of the *Software* must select the option "Land Converted to…" as the data from the *Software* transfer automatically at a more aggregated level. Failure to select this option, results in the data for land conversions in CRT 4(II) to not transfer to the UNFCCC.

Annex 1: Mapping Tables: IPCC Inventory Software to UNFCCC CRT-Cross-cutting Tables

As described in this guide, the common reporting tables (CRT) contained in decision 5/CMA.3 have been visualized in the IPCC Inventory Software. The mappings between the *Software* and the CRT are visualized in the *Software* to allow the user to properly understand (thus enhancing transparency) and keep for internal use the results of the conversion of IPCC category GHG estimates into UNFCCC national GHG inventory categories.

The mapping tables for each sector have been made available in the annex to the respective Users' Guidebook for each sector (see https://www.ipcc-nggip.iges.or.jp/software/index.html). To understand how the mapping tables have been generated, and to read those tables, please refer to the sector guidebook of interest.

In general, the instructions vary, depending on the nature of the category, and how many calculation worksheets from the *Software* map to that cell, but generally, the instruction is written to direct the user to:

1. The specific IPCC category in the category tree of the *Software*.
2. The tab in that worksheet which contains the relevant information.
3. The gas of interest.
4. The column that contains the relevant information (AD, parameter on emissions), with an indication of any mathematical operation needed (e.g. SUM, MULTIPLY BY, etc)
5. Any conversions needed to ensure correct units map to the UNFCCC CRT (e.g. DIVIDE by 1,000 to convert tonnes to kilo tonnes).

This annex contains the mappings **to CRT 6, Summary 1 and Summary 2**. Only CRT 6 and Summary 1 contain cells for user entry in the IPCC Inventory Software, the mapping for which is not covered by a sector guidebook. The mapping for Summary 2 is included, as this table is also fully populated in the visualized CRT to facilitate user's QA/QC efforts.

Table A.1. Mapping between *Software* and the UNFCCC ETF Reporting Tool – Cross-cutting tables

Please note that the tables are accessible by clicking the ATTACH icon (paper-clip) on the left-hand side of your screen.