Workshop on Enhanced Transparency Framework under the Paris Agreement
Software Installation Essentials: Pacific Region

Venue: Crown Beach Resort & Spa, Rarotonga, Cook Islands
Date: 25-28 March 2025

Sekai Ngarize
Climate Transparency Advisor : UNEP-CCC

Overview of presentation

- Downloading the IPCC Inventory Software installation file
- Installing the IPCC Inventory Software
- First Run
- Creating a new database
- IPCC Software and Paris Agreement
- Architecture

Executed by: UN environment programme | copenhagen climate centre
Funded by: gef
Implemented by: UN environment programme

Downloading the IPCC Inventory Software 1/6

- Where to find the official software
- How to get the latest version
- Choosing the installation file

Executed by: UN environment programme | copenhagen climate centre
Funded by: gef
Implemented by: UN environment programme

Downloading the IPCC Inventory Software -2/6

- The IPCC Inventory Software can be downloaded **exclusively** from the Task Force on National Greenhouse Gas Inventories website: https://www.ipcc-nggip.iges.or.jp/software/index.html

- The IPCC TFI TSU ensures that the **latest version** of the software is always available for download.

- The *Software* has **two different installation files**, depending on the operating system: one for **32-bit systems** and another for **64-bit systems**.
  - To ensure **compatibility** between the *Software* and the operating system.
  - Although there are two different installation files, the ***Software* version that is installed is the same.**
  - Therefore, users with the same *Software* version, whether on 32-bit or 64-bit systems, can work on the same database without any issues.

Executed by: UN environment programme | copenhagen climate centre
Funded by: gef
Implemented by: UN environment programme

Downloading the IPCC Inventory Software 3/6

When you visit the website to download the installation file, you are faced with an initial question: **“Which file should I download?”**

To find out which installation file to download, it is necessary to understand which versions of Windows operating system and MS Office (if any) are installed. These three steps should be followed:

Step 1 – Determine which **version of Windows OS** is installed on your computer.

Step 2 – Determine which **version of MS Office** is installed on your computer, if any.

Step 3 – Use the “**IPCC Inventory Software Setup Type Decision Chart**” to find out which installation file to download.

Executed by: UN environment programme | copenhagen climate centre
Funded by: gef
Implemented by: UN environment programme

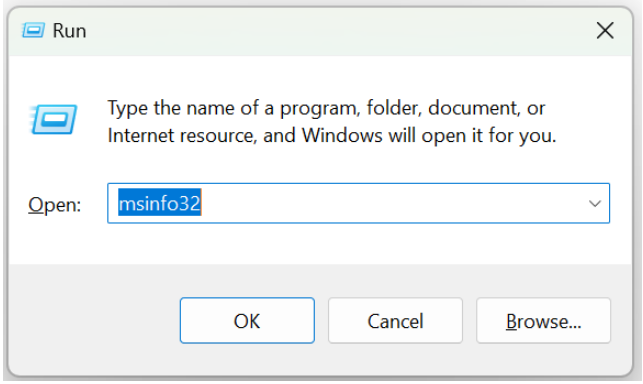
Downloading the IPCC Inventory Software 4/6

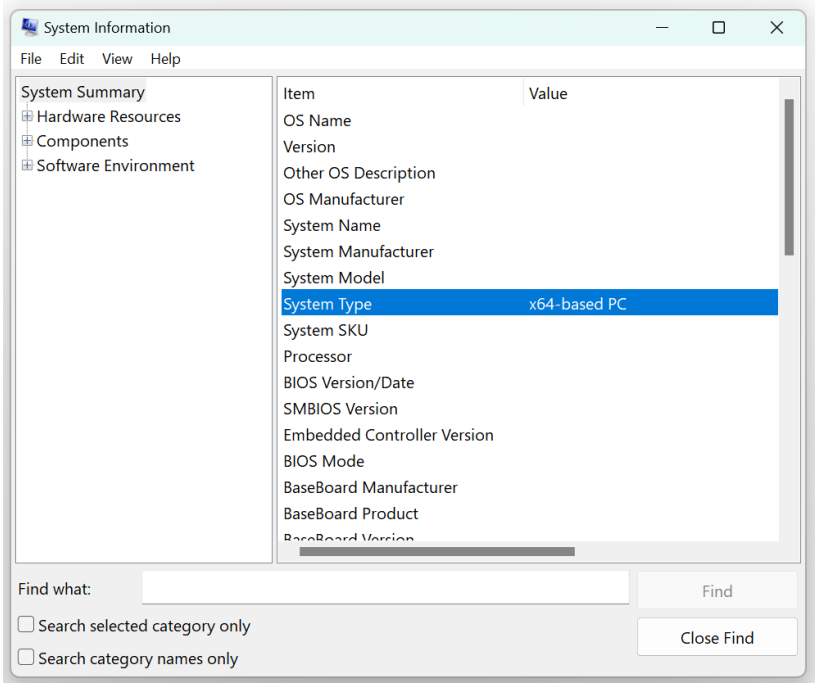
Step 1 – Determine version of Windows OS

To check whether you have a 32-bit or 64-bit version of Windows installed, follow these steps:

1. Press Win + R to open the Run dialog window.
2. Type msinfo32 and press Enter.
3. Look for the "System Type" entry:
   - If it shows x64-based PC, your Windows is a 64-bit version.
   - If it shows x86-based PC, your Windows is a 32-bit version.

For windows 10 and 11 this information can also be found under Settings>System>About.





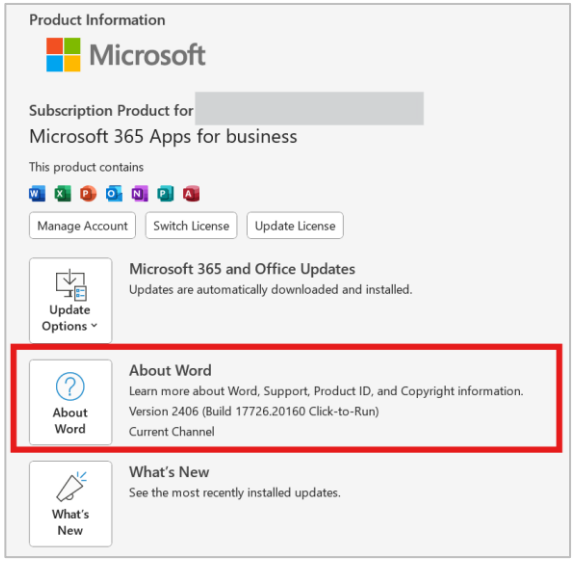
Executed by: UN environment programme | copenhagen climate centre
Funded by: gef
Implemented by: UN environment programme

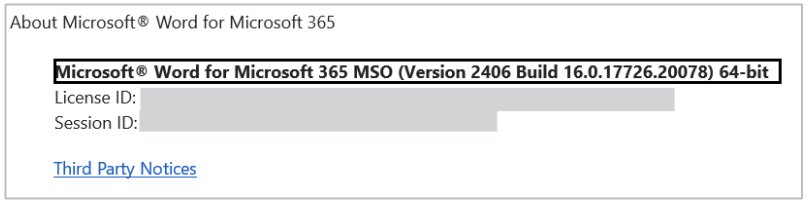
Downloading the IPCC Inventory Software 5/6

Step 2 – Determine version of MS Office

To check whether you have a 32-bit or 64-bit version of MS Office installed, follow these steps:

1. Open any Office application: such as Word, Excel, or PowerPoint.
2. Click on File in the top-left corner.
3. Click on Account. If you don't see Account, click Help.
4. Click on About [Application Name].
5. In the About window, you will see the version information, including whether it is 32-bit or 64-bit.



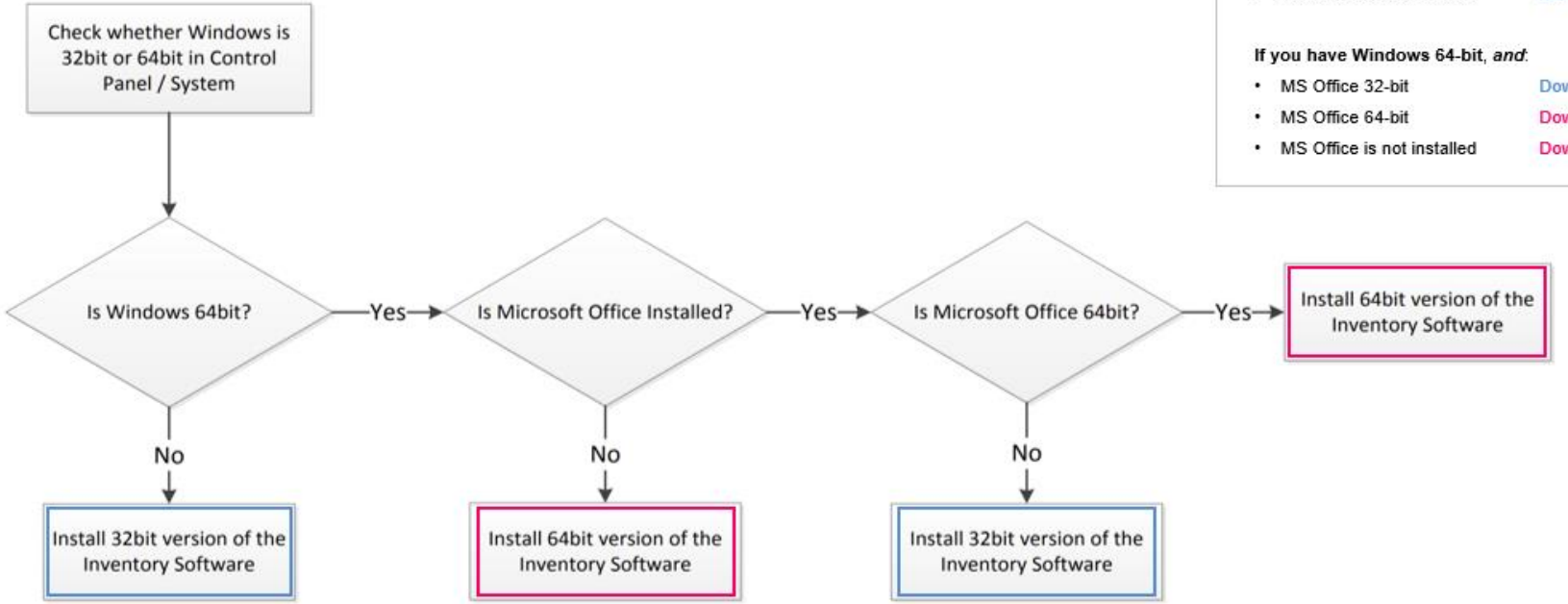


Steps suitable for Office 2013, Office 2016, Office 2019, Office 2021, and Microsoft 365.

Executed by: UN environment programme | copenhagen climate centre
Funded by: gef
Implemented by: UN environment programme

Downloading the IPCC Inventory Software 6/6

Step 3 – Use the IPCC Inventory Software Setup Type Decision Chart



If you have Windows 32-bit, *and*:

- MS Office 32-bit — Download the 32-bit version
- MS Office is not installed — Download the 32-bit version

If you have Windows 64-bit, *and*:

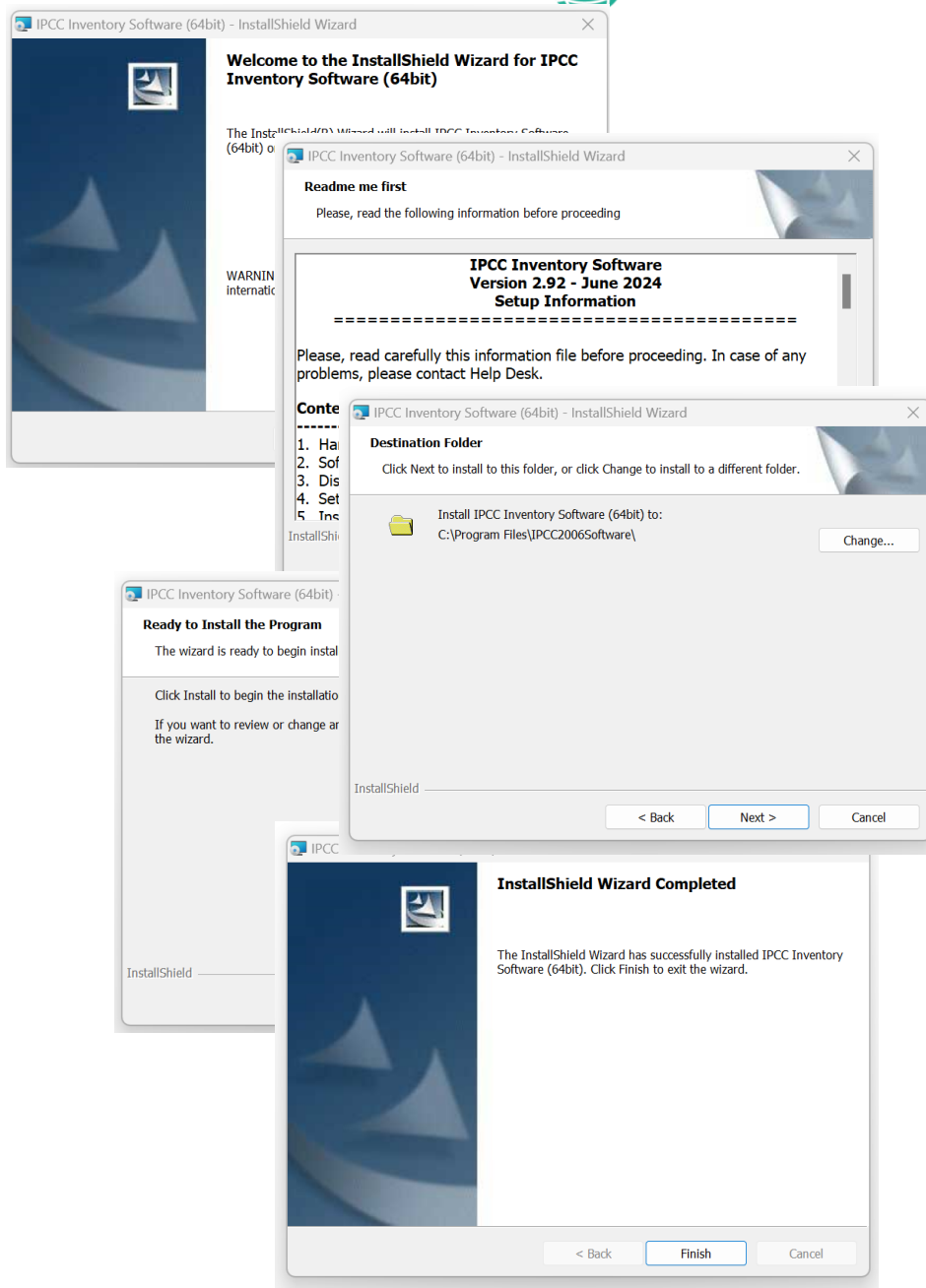
- MS Office 32-bit — Download the 32-bit version
- MS Office 64-bit — Download the 64-bit version
- MS Office is not installed — Download the 64-bit version

Executed by: UN environment programme | copenhagen climate centre
Funded by: gef
Implemented by: UN environment programme

Installing the IPCC Inventory Software

- The IPCC Inventory Software installation file is an executable that opens an **InstallShield Wizard**.
- Follow the usual installation steps by clicking 'Next' and 'Install.'
- Be sure to read the provided information before proceeding and choose the location where the *Software* will be installed.

- Please note that **administrative permissions are required to install the *Software***. If you do not have these permissions, contact your institution's IT department.
- It is also important to note that the *Software* only runs on the **Windows operating system**.



Executed by: UN environment programme | copenhagen climate centre

Funded by: gef

Implemented by: UN environment programme

First Run

- Opening a new database
- Setting a Superuser
- Choose Country/Territory
- Create a new Inventory Year

First Run – New Database, New Superuser

The first run of the *Software* requires setting the **Superuser** of the first **Database** that is going to be opened. The **Superuser:**

- ✓ has full control over the application.
- ✓ is responsible for defining additional users.

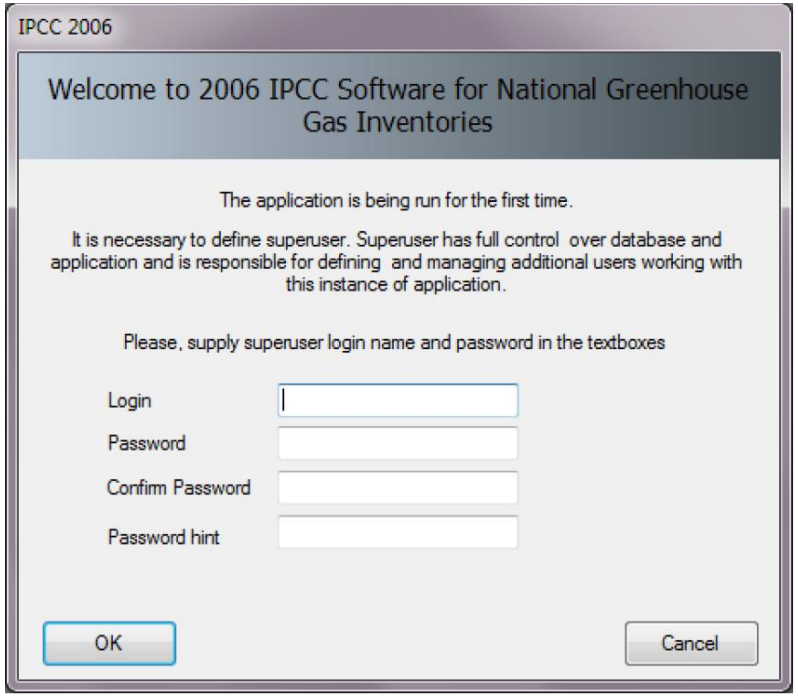
Nevertheless, you can also open databases set up by others, for which you are not the Superuser.

When setting up an NGHGI that is to be compiled by more than one expert, the first step for using the *Software* is to identify the **Superuser**, usually the NGHGI head. The **Superuser** is the one that shall open and set up the NGHGI database with their app and then share it with other users.

Executed by: UN environment programme | copenhagen climate centre
Funded by: gef
Implemented by: UN environment programme

First Run – Set Superuser login and password

On the **first run**, the application displays its welcome window, where you can enter the Superuser's **login** (username) and **password** for the database that the application will set up.



Important!

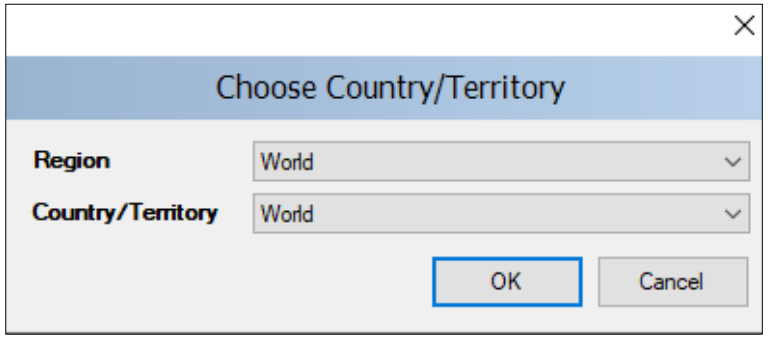
- When setting YOUR Password always set YOUR Password Hint too. It is also highly recommended you **take note of your password and store it in a safe place**. The *Software* does not have a mechanism to restore your password if you lose or forget your password, this means that you may no longer access your database.

- *The Password applies to the database, not to the Software. The Software can manage different databases with different passwords.*

First Run – Choose Country/Territory

In this step it is necessary to choose the desired Region and Country/Territory.

The country is relevant where the default EFs and other parameters are country-specific and will ensure that the proper defaults are pre-populated (e.g. for AFOLU and Waste worksheets).



Notes:

- When you export and import XML files into the *Software*, the country codes must match.
- This country list is based on the UN list, which is available at http://unstats.un.org/unsd/methods/m49/ (Geographic Regions).
- The country selection applies to the database, not to the *Software.* The *Software* can manage different databases of different countries

First Run – Create new Inventory Year

In this step it is necessary to create the initial **Inventory Year**.

In this initial step, you will “Create empty inventory year” and select a year from the drop down.

When you create future inventory years, you will also have the option to create the inventory year and copy data from a previous inventory year.

After creating the Inventory Year, **the *Software* is successfully initialized and prepared for use** or for further addition/refining of user settings.

Notes:

- t is recommended to start with the first year in your time series and build future inventory years on the previous year(s). When building the land representation, you MUST start with the first year of the time series. For further information, see the Land Representation Guidebook.
- The Inventory Year selection applies to the database, not to the *Software*, when opening a new database a different year can be selected. I

Executed by: Funded by: Implemented by:

Creating a new Database

- Initializing a new database
- Blank database replication
- Opening the database for the first time

Initializing a new database (1/x)

The IPCC Inventory Software enables users to work with multiple databases.

- Once a user completes the *Software* First Run, a database with specific settings and established access credentials for a superuser will have been created. However, if the user wishes, **other databases with different settings** can be produced.
- For each new database, a Superuser Login and Password must be set. The Superuser Login and Password can be different for each new database.

When creating a new database, please consider the following:

- The database must have a **valid structure** for the IPCC Inventory Software.
- Therefore, the process should begin with a **blank version of the IPCC Inventory Software database**.
- A blank database is one that has never been opened, allowing it to be initialized with a new login and password.

The next slides will guide you through the steps to create a new database for the IPCC Inventory Software.

Executed by: UN environment programme | copenhagen climate centre
Funded by: gef
Implemented by: UN environment programme

Initializing a new database (2/x)

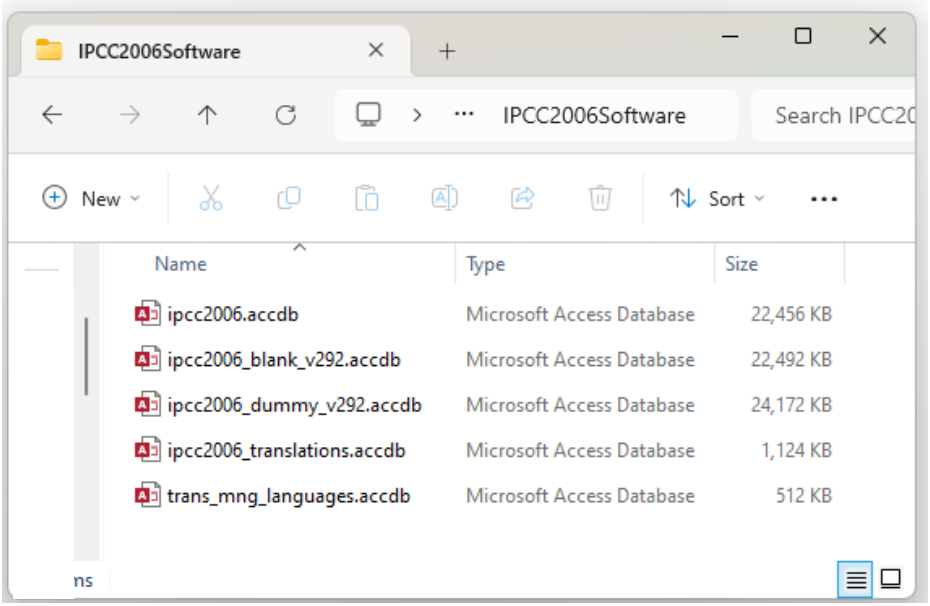
When IPCC Inventory Software is installed on a computer, a folder containing 3 databases is also created:

- **ipcc2006** - will be used during the "First Run“
- **ipcc2006_blank** - blank database
- **Ipcc2006_dummy** - database with dummy data pre-filled

The **ipcc2006_blank_vxxx.accdb file** contains a blank database with a valid structure, that has never been opened, allowing it to be initialized with a new login and password.

As soon as a blank database is opened and a superuser is defined, it ceases to be a blank database and **can no longer be used to start a new database**.

For this reason, **a copy of the blank database** must be used to ensure that the user **can always initialize a new database.**



Predictable location

Local Disc (C:)

> ProgramData

> IPCC2006Software

Executed by: UN environment programme | copenhagen climate centre
Funded by: gef
Implemented by: UN environment programme

Initializing a new database (3/x)

Making a copy of the Blank Database

1. Open the folder @ C:\ProgramData\IPCC2006Software.
2. The folder contains a blank* database, as **ipcc2006_blank_v296.accdb**.
3. Make a copy and preferably save it in the same folder by renaming it according to the use needed:

   3.1 – You can select the file and copy it using Ctrl+C, then pasting using Ctrl+V, or

   3.2 – You can “right-click” on the file and select Copy, and then right-click” on the folder and select Paste.

   3.3 – You can then rename the copied file.

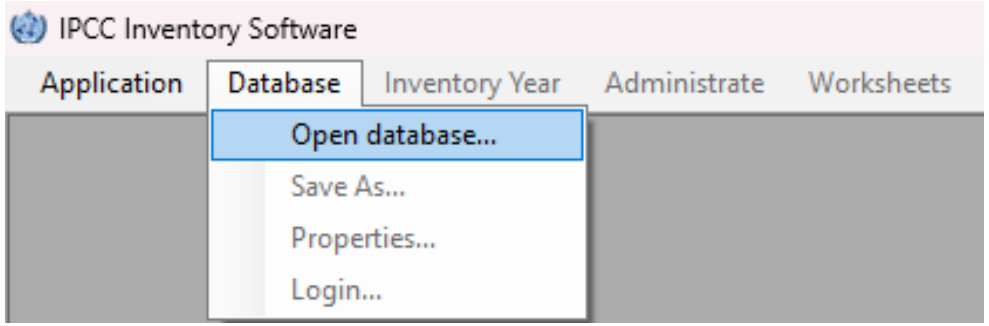
Having completed this procedure, the initialization of the new database is done in the IPCC Inventory Software.

Executed by: UN environment programme | copenhagen climate centre
Funded by: gef
Implemented by: UN environment programme

Initializing a new database (4/x)

CBIT-GSP
CLIMATE TRANSPARENCY

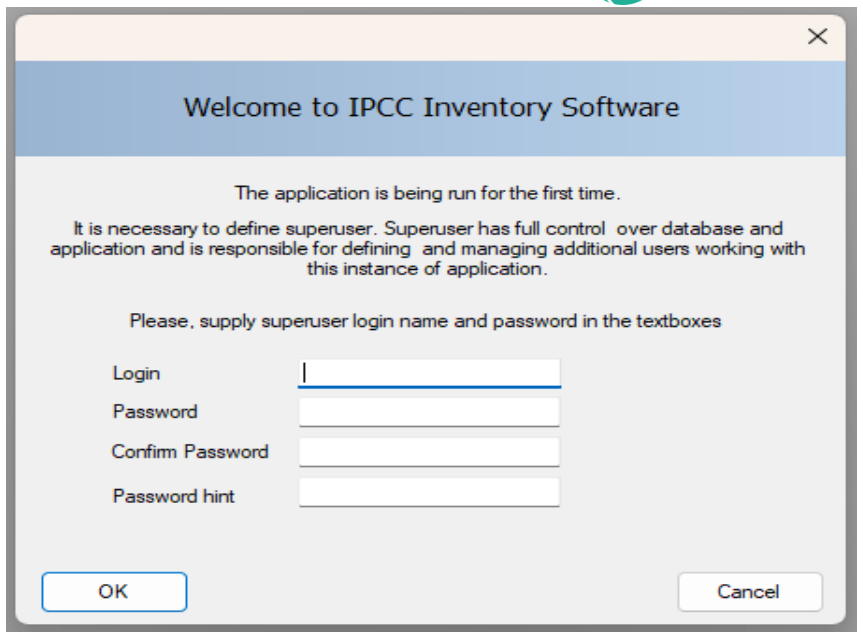
Opening a database for the first time

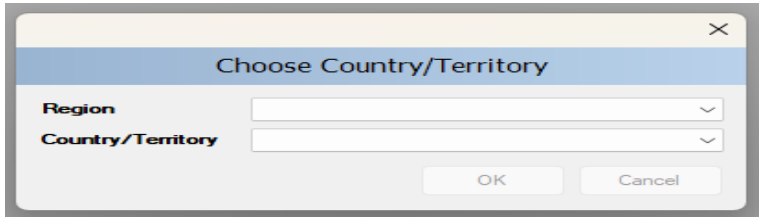


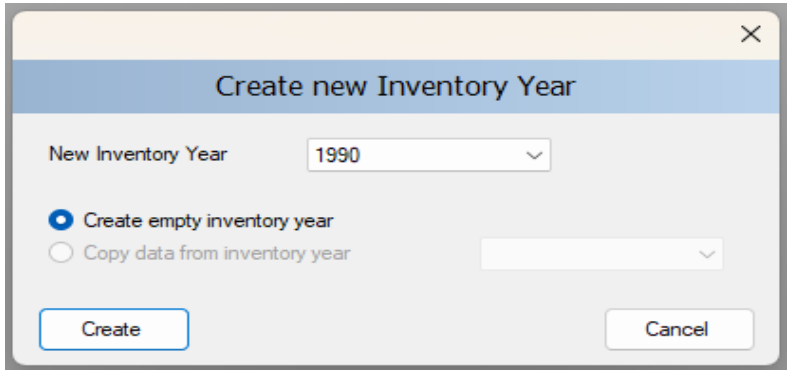
When a new database is opened for the first time in the IPCC Inventory Software, it is necessary to:

- Set **Superuser** login and password
- Choose **Country/Territory**
- Create new Inventory **Year**

Similar precautions and actions as taken during the 'First Run' apply.



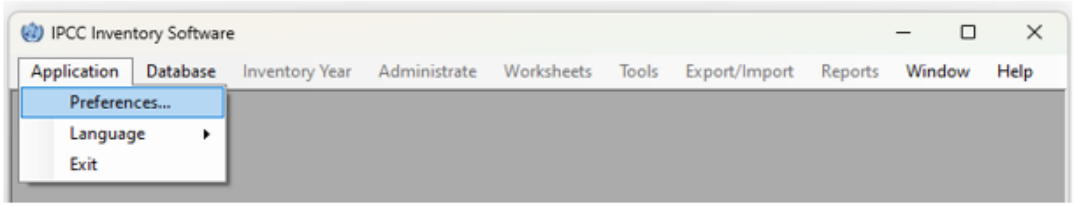




Database settings - Preferences

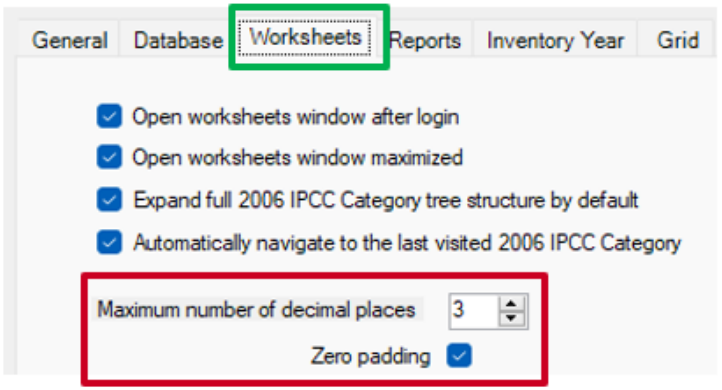
On the Application Tab

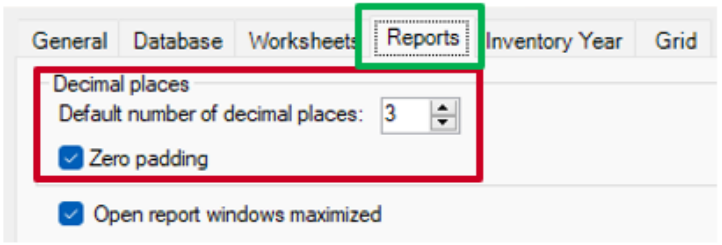
Select Preferences to open Application Preferences

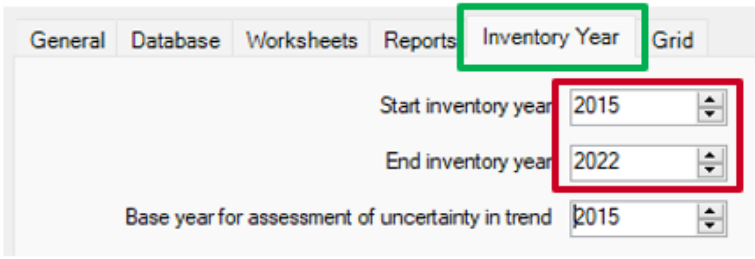


On the **Application preferences** windows go to:

- Worksheets Tab and select **3 decimal places with Zero padding.**
- Reports Tab and select **3 decimal places with Zero padding.**
- Inventory Year and select:
  - **2011 as start inventory year** and
  - **2023 as end inventory year.**







Executed by: UN environment programme | copenhagen climate centre
Funded by: gef
Implemented by: UN environment programme

Installing latest version of the Software

Install version 2.96 of the *Software*

1. Visit the TFI website - https://www.ipcc-nggip.iges.or.jp/software/index.html
2. Identify the appropriate installation file for your computer.
3. Download version 2.96 of the IPCC Inventory Software.
4. Install it.
5. Open it and do the First Run.

CBIT-GSP
CLIMATE TRANSPARENCY

UN environment programme | copenhagen climate centre

Thank you for your attention!

Sekai Ngarize Advisor – Climate Transparency UNEP-CCC
sngarize47@gmail.com

UN environment programme

gef

IPCC Inventory Software & Paris Agreement Reporting

CBIT-GSP
CLIMATE TRANSPARENCY

International reporting requirements

- ✓ Countries to submit a Biennial Transparency Report (BTR), including the NGHGI and its CRTs (Common Reporting Tables).
- ✓ Reporting must follow the Modalities, Procedures and Guidelines (MPGs) (decision 18/CMA.1), and so be based on the *2006 IPCC Guidelines*

IPCC Inventory Software as a Tool

- ✓ Decision 5/CMA.3 mandates the UNFCCC secretariat to develop reporting tools, including for CRTs.
- ✓ Decision 5/CMA.3 requests the UNFCCC secretariat to facilitate interoperability with the IPCC Inventory Software and invites the IPCC to cooperate

Executed by: UN environment programme | copenhagen climate centre
Funded by: gef
Implemented by: UN environment programme

IPCC Inventory Software & Paris Agreement Reporting

CBIT-GSP
CLIMATE TRANSPARENCY

IPCC Inventory Software

1. Prepare GHG Inventory in IPCC Software

- ✓ Estimate GHG emissions consistent with IPCC Guidelines
- ✓ Reduce errors
- ✓ Supports national institutional arrangements

2. Review Visualized CRTs

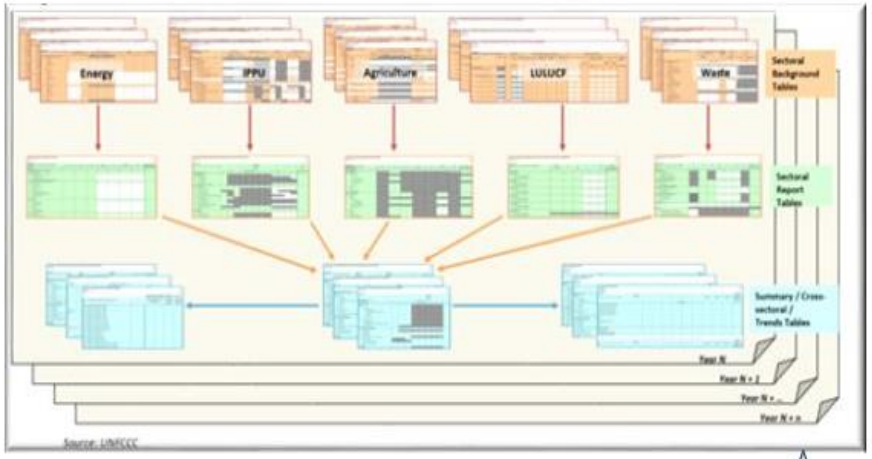
- ✓ Review results; if necessary, go back to calculation worksheets
- ✓ Finalize notation keys for reporting
- ✓ Incorporate information needed for reporting in the CRT, including flexibility, as applicable.

3. Produce JSON file

- ✓ Save file on your computer

4. Upload file to UNFCCC ETF Reporting Tool

UNFCCC ETF Reporting Tool



Complete, Easy to Use, Fundamental

IPCC Inventory Software used to complete 60 tables of the CRT for each year of the time series!

Executed by: UN environment programme | copenhagen climate centre

Funded by: gef

Implemented by: UN environment programme

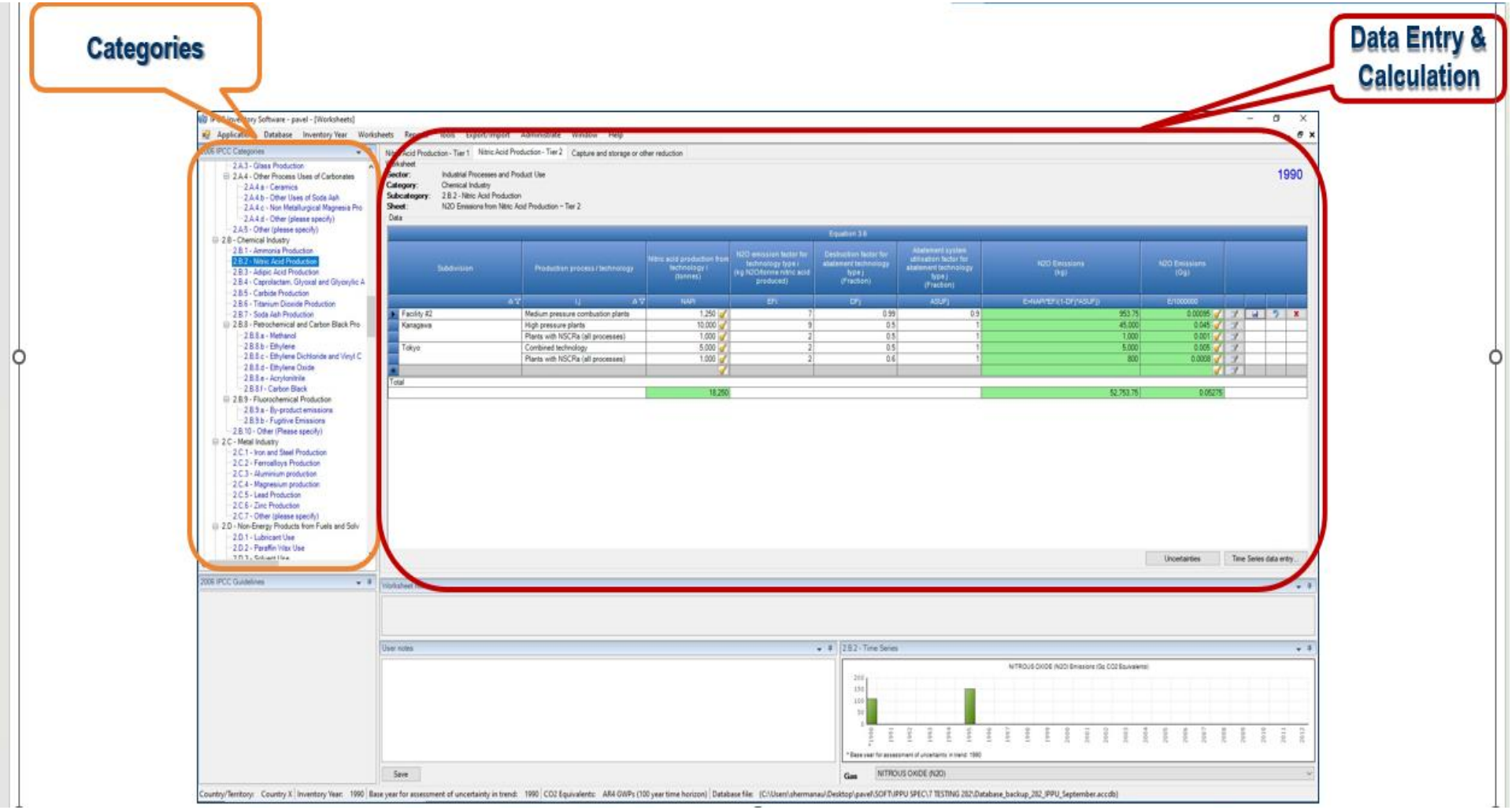
Architecture

- MSAccess (ACE OLEDB 12) for WindowsOS
- ACCDB file, *backup function*
- Microsoft .NET Framework 4.6.2
- Password protected

NEVER FORGET PASSWORD!

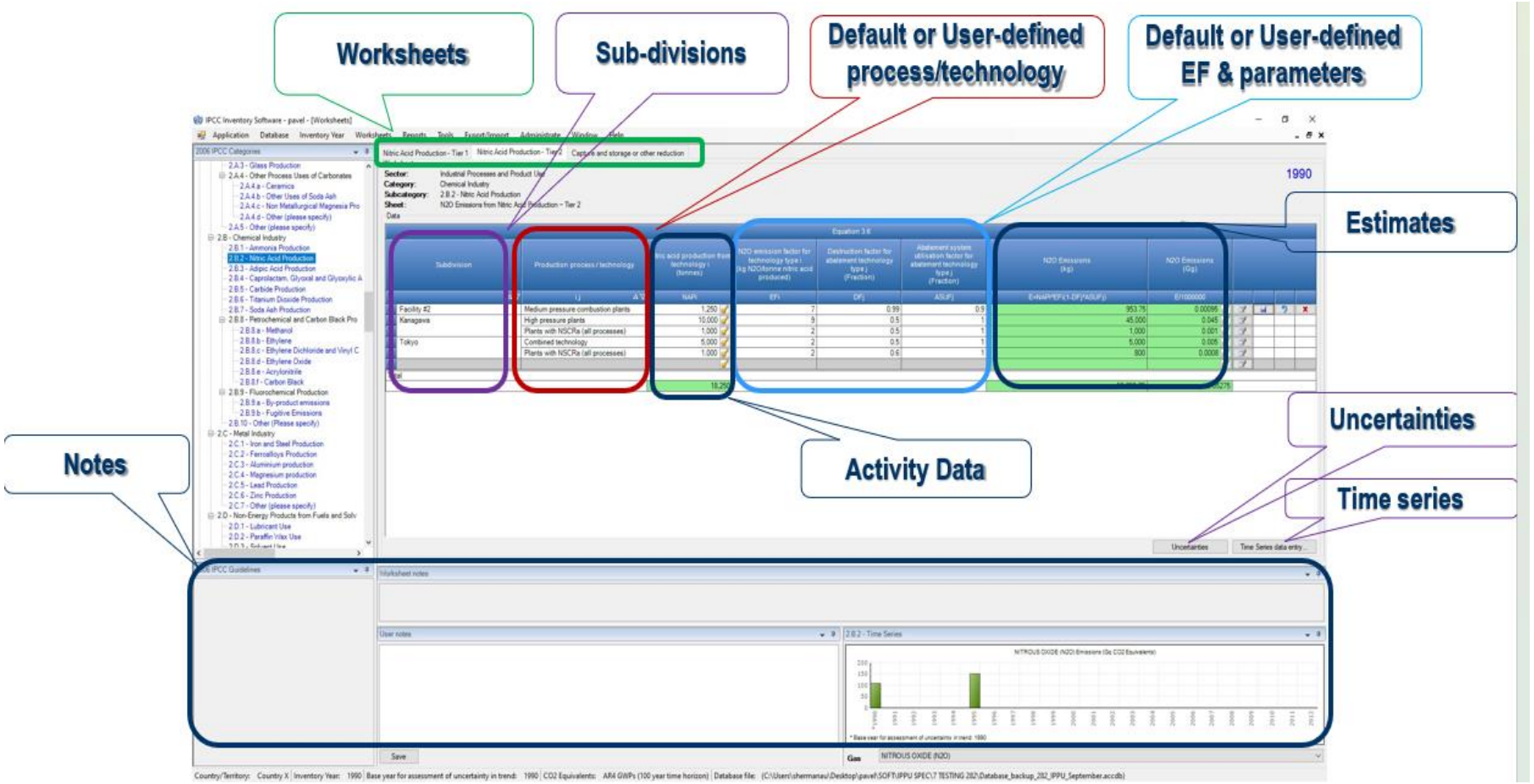
Executed by: UN environment programme | copenhagen climate centre
Funded by: gef
Implemented by: UN environment programme

Example of a Worksheet-1



Executed by: UN environment programme | copenhagen climate centre
Funded by: gef
Implemented by: UN environment programme

Example of a worksheet -2



Executed by: UN environment programme | copenhagen climate centre

Funded by: gef

Implemented by: UN environment programme

2006 IPCC Categories Navigation Window (tree)

The worksheets relevant to the selected IPCC Category will be displayed in the main working area on the right.

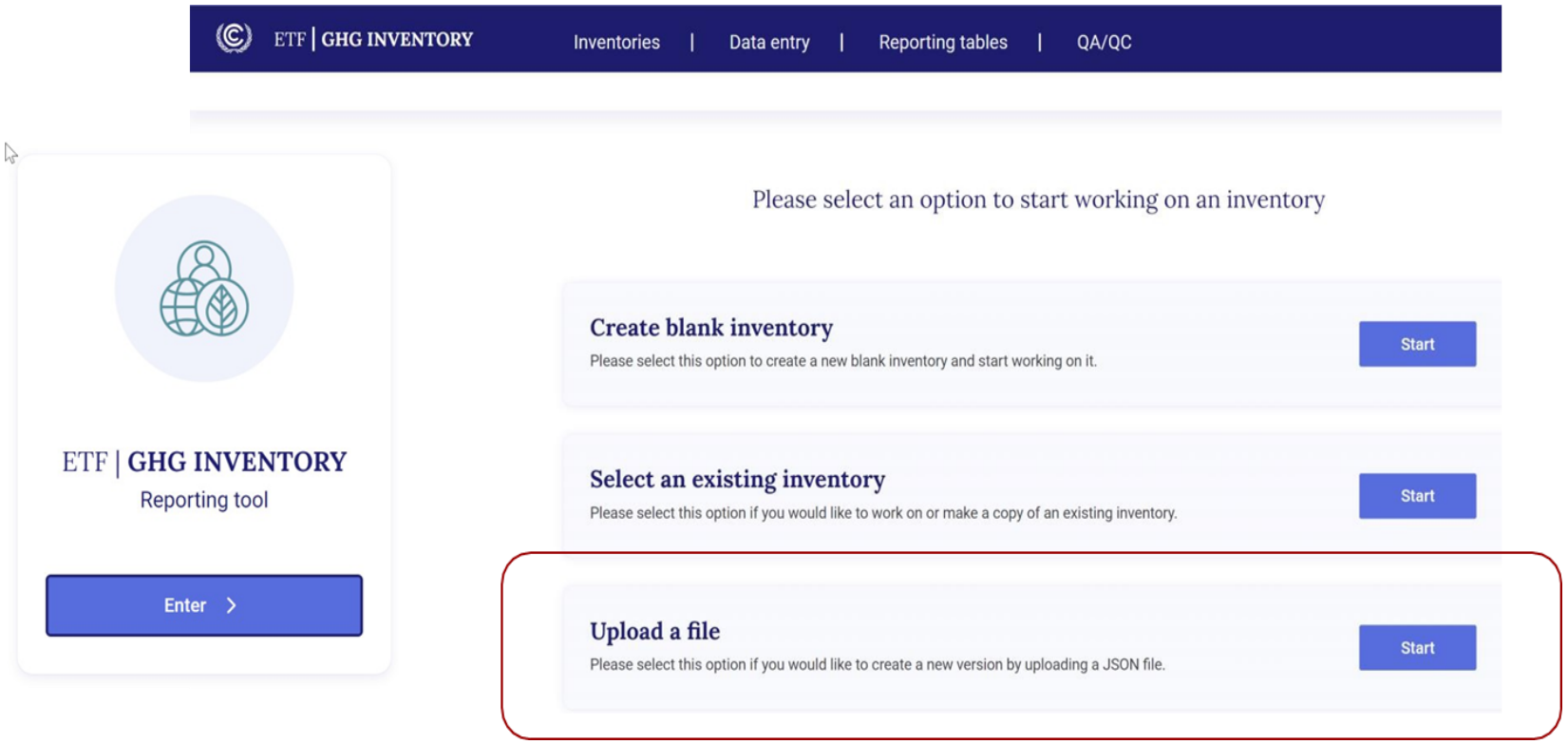
Worksheets are available for all IPCC categories that are highlighted in blue, magenta and lilac.

Executed by: UN environment programme | copenhagen climate centre

Funded by: gef

Implemented by: UN environment programme

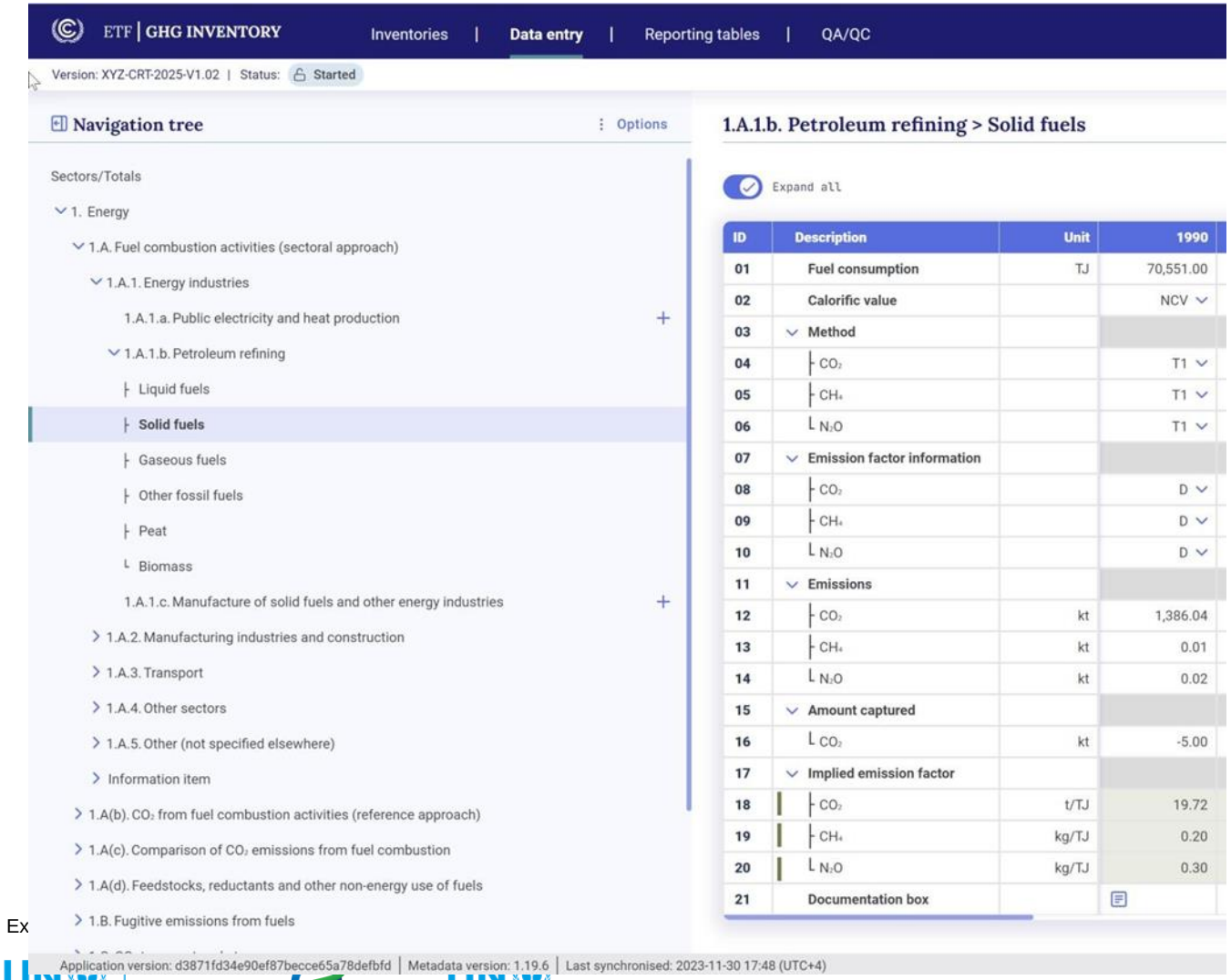
Import IPCC JSON file into ETF Reporting Tool



1. Select ‘Upload a file”
2. Drag and drop or upload JSON file from previous step
3. You will be prompted to enter version settings:
   -Submission year
   -For developing countries, if you are applying flexibilities for time series/latest year
   -Sector-specific selections

Executed by: UN environment programme | copenhagen climate centre
Funded by: gef
Implemented by: UN environment programme

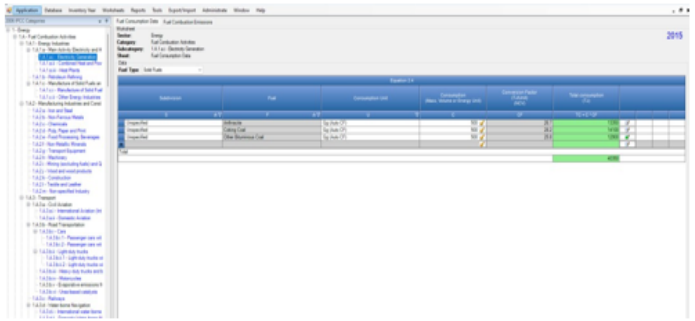
Quality Control Data Entry



- Use of the IPCC JSON file is a means of data input into the ETF Reporting Tool. Users can check all data input grids and reporting tables in the ETF Reporting Tool.
- Users should quality control their imported IPCC data prior to submission.
- Note: The implied emission factors will be calculated here; they were not shown in the IPCC Inventory Software

Ex

Submit GHG Inventory to UNFCCC ….and start preparing for next submission



Remember: The ETF Reporting tool is the official tool TO BE USED for submission of data to the UNFCCC to meet reporting obligations under the Paris Agreement.

And…with the inventory you have created in the IPCC Inventory Software, you are well prepared to build on it for your next BTR GHG inventory submission.

Thus… helping build a sustainable GHG inventory system.

Executed by: UN environment programme | copenhagen climate centre
Funded by: gef
Implemented by: UN environment programme