

User Guide of the ICP Forests Data Portal

Authors: Till Kirchner, Katrin Hagenmüller

Last change: 28.09.2021



Contents

1 General Information.....	3
2 Tab – SURVEY SUMMARY.....	4
2.1 List of submissions.....	4
2.2 Open a new submission	4
2.3 Database changes affecting your submission	5
3 Tab – DATA UPLOAD.....	5
3.1 Uploading data for a submission.....	6
3.2.1 Uploading Photos (surveys LA, OZ, PH).....	7
3.2 Testing data	7
3.2.1 Compliance test.....	7
3.2.2 Conformity test.....	8
3.3 Finalize a submission	9
4 Tab – INSPECT DATA.....	10
4.1 Data preview	10
4.2 Data download	10
4.2.1 Folder “adds”.....	10
5 Tab – DATA REPORTS.....	11
5.1 Data Availability Reports	11
5.2 Missing submissions	11
5.3 Missing plot years.....	11
6 Tab – CHECKOUT DATA	12
7 Additional Tabs.....	13
7.1 Tab – HELP/SETUP	13
7.2 Tab – CONTACT.....	13
7.3 Tab – LOGIN / LOGOUT	13

1 General Information

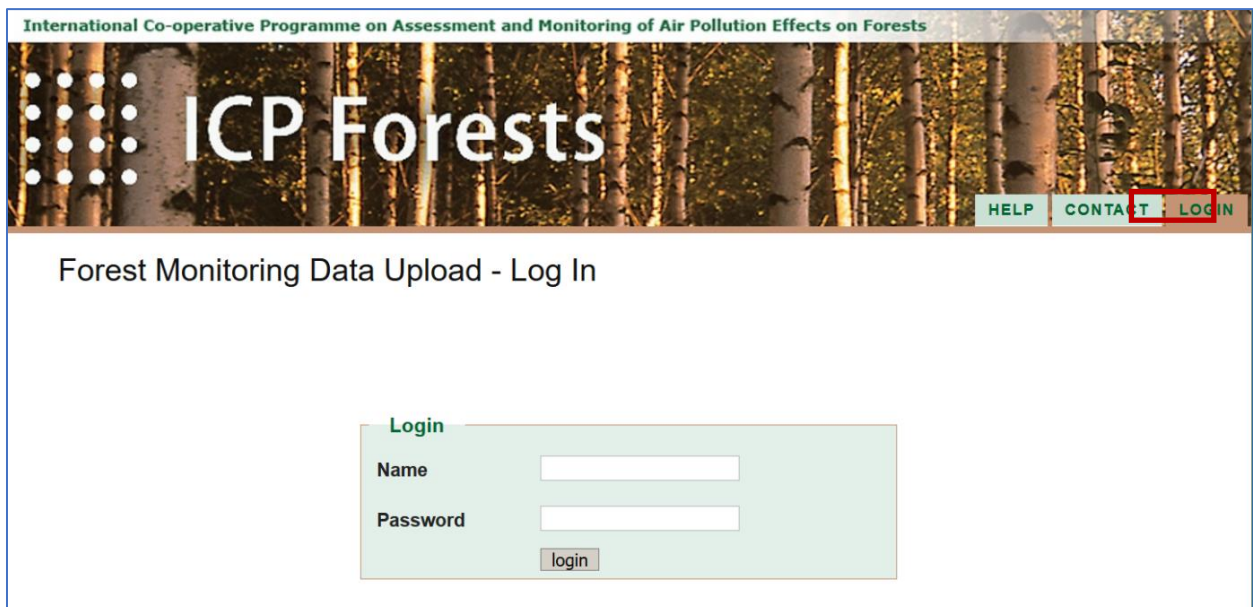
Important Links

Data portal	https://icp-forests.org/data
Documentation of data model (forms)	https://icp-forests.org/documentation
Newest version of this user guide	https://www.icp-forests.org/pdf/icpf_data_portal_user_guide.pdf

On the [start page](#) of the data portal you can login with your username and password.

Please contact the PCC of ICP Forests if you forgot your login credentials (icpforests@thuenen.de).

For any other problems please contact Till Kirchner (till.kirchner@thuenen.de) and Katrin Haggemüller (katrin.haggemueller@thuenen.de).



International Co-operative Programme on Assessment and Monitoring of Air Pollution Effects on Forests

ICP Forests

HELP CONTACT **LOGIN**

Forest Monitoring Data Upload - Log In

Login

Name

Password

!!! Please note !!!

The data portal provides additional prompts and guidelines not documented here.

Please read all information and instructions on the screen carefully before acting.

Please let us know if you are missing any information here.

Please check for the [latest version of this user guide](#) from time to time.

We will try to improve this document continuously.

2 Tab – SURVEY SUMMARY



The tab “SURVEY SUMMARY” lists all your **previous submissions** in this portal and allows you to open a **new submission**.

Please take note, that the central database may comprise more data than is listed in the survey summary. The main reason for this is that the portal can only report data which has been submitted via the portal. However, some of the data was stored in the database in another way at a time before the portal was available, and has never been resubmitted.

2.1 List of submissions

The list of submissions (see below) can be filtered using the free text search on top of each column.

Example of a finalized submission from the list:

Survey	Survey code	Country/Partner	Year	Last change	Uploaded files	Compliance	Conformity	Finalized	Go to
	LF		2019						
Litterfall	LF		2019	29.01.2021 13:17	3 files	ok	ok	ok	→

By clicking on the green arrow in the right column “Go to”, you can go to the submission (see the [tab DATA UPLOAD](#)).

2.2 Open a new submission

To open a new submission on behalf of the selection menu as shown below choose the “Survey year” and “Survey” you want to submit. Then press “go ...”.

This will open the tab “DATA UPLOAD”.

Please take note, that the portal’s system allows you to have only one submission per survey in progress. The picture below shows that for the survey “Soil Water” the submission from 2009 is not yet finalized. Thus, you cannot open another submission of the survey “Soil Water” before finalizing data from 2009.

Select a Survey to edit

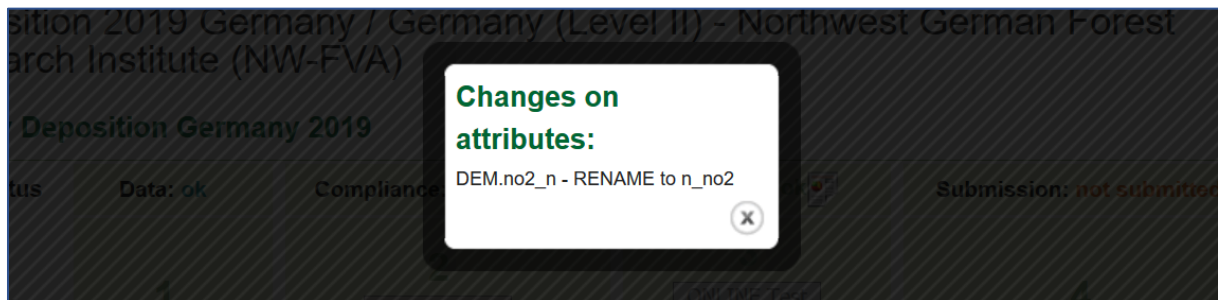
Survey year: Survey:

The following surveys are not available because they are in progress in other survey years; survey name (survey year):
Soil Water (2009)

You may wish to cancel an open submission. This could happen, for example, if you wish to submit a new survey year, but you are not able to finalize the previous submission, because during the testing process you realized that you have problems with the data. In order to cancel the running submission, open the respective submission under “Survey Summary” (see above) and delete all uploaded files from the system. Afterwards you will be able to start a new submission for this survey.

2.3 Database changes affecting your submission

Sometimes the data model has changed, and it can affect the structure of forms you wish to submit. In this case, the changes will be reported in a popup window for the survey you are opening, like below.



All changes are noted in the online documentation of the data model under <https://icp-forests.org/documentation>

3 Tab – DATA UPLOAD



The tab “DATA UPLOAD” allows you to **submit data**.

Submitting data is a multi-step process, implemented in a certain order.

The steps are:

1. Upload data
2. Compliance tests (checking for structural errors, completeness, data type etc.)
3. Conformity tests
 - a. Range tests (lower/upper thresholds)
 - b. Temporal tests (consistency over time)
 - c. Multiple tests (more complex tests including several attributes)
4. Finalize

The steps will be described in detail.

On top of the site you can control all steps (described as “tasks” on the website) and their progress.

The example below shows a completed (finalized) submission of deposition data from Germany.

Survey Deposition Germany 2018

Status	Data: ok	Compliance: ok	Conformity: ok	Submission: ok
Task	1 Add Data	2 ONLINE Test OFFLINE Test	3 ONLINE Test OFFLINE Test	4 Finalize

Click the button “checkout this submission” if you wish to download the current submission to edit and resubmit (see: [TAB - “CHECKOUT DATA”](#)).

3.1 Uploading data for a submission

The first step is to upload all data of the submission.

Pressing “Add data” will open the following upload dialog:

Select File and File Type

File: Keine Datei ausgewählt.

Dataset for Deposition may include files having the extensions .DEM, .LQA, .PLD.

File type: form (dataset) DAR-Q free file

The button “Durchsuchen...” allows you to choose a file to be uploaded from your local filesystem. After selecting the file it can be uploaded to the portal by pressing “Upload File”.

Below this dialog you find a list of forms to be used for this submission. All forms are described in detail under <https://icp-forests-org/documentation>

The system allows you to upload different file types:

- *Form (dataset)*: standardized forms (csv-files) to be used for a submission (e.g. deposition: PLD, DEM, LQA)
- *DAR-Q*: Data Accompanying Report – Additional information provided with the data (see: https://icp-forests.org/documentation/Introduction/General_remarks.html). These reports can be uploaded as “.doc”; “.docx” or “.pdf” files.
- *Free files*: Any additional files




Note: Please choose file type before pressing “Upload File”.

All files uploaded for the submission will be listed on the site (example below).

Data Details for Deposition							
	Form	Type	File Name	Date	History	View	Delete
Deposition - Laboratory QA/QC information	DP.LQA		042018DP.LQA	27.07.2020 07:40			
Contents of reduced plot file to be used in combination with the deposition measurements	PLD		042018.PLD	23.07.2020 13:59			
Contents of datafile with deposition measurements (mandatory)	DEM		042018.DEM	23.07.2020 13:36			
Data Accompanying Report	DAR-Q		DAR_Q.docx	27.07.2020 08:06			

Previously uploaded files can be deleted and replaced by a new version of the same file by pressing the **X** in the column “Delete”.

All deleted files will be stored in the portal together with the current version of files. You can access them by clicking on the calendar icon in the column “History”. Here you will get a list of all versions of the corresponding file uploaded to the portal (see example below).

History for File 042018.DEM						
	Form	Type	File Name	Date	ArchiveDate	View
	Contents of datafile with deposition measurements (mandatory)	DEM	042018.DEM	23.07.2020 13:36	-	
	Contents of datafile with deposition measurements (mandatory)	DEM	042018.DEM	23.07.2020 12:34	23.07.2020 13:35	
	Contents of datafile with deposition measurements (mandatory)	DEM	042018.DEM	23.07.2020 12:17	23.07.2020 12:34	

By clicking on the table icon in the column “View” the file content will be shown in the browser.

There is no direct download option for uploaded files, but you can mark everything in the browser window with “CTRL + A”, copy the content with “CTRL + C” and insert it into any text file with “CTRL + V”.

3.2.1 Uploading Photos (surveys LA, OZ, PH)

For following surveys additional photographs have to be uploaded:

- Assessment of Ozone Injury
- Phenological Observations
- Leaf Area Index (LAI) and Radiation Measurements

Photos have to be uploaded as „.jpg“ files.

Please do not upload several photos in one zip archive but each photo separately.

Coding of the file names is described here:

<https://icp-forests.org/documentation/ExplanatoryItems/86.html>

To upload a photos choose „file type“ = „free files“ and upload the file.

Please note:

The file type name „free files“ might be misleading.

Uploading used photos might be mandatory (e.g. hemispherical photos for LAI measurements).

Uploaded photos have to be described in the corresponding forms in detail.

3.2 Testing data

Uploaded data needs to be tested in two steps: for compliance and conformity. The tests are described in detail below.

For both tests, you have the option to run it “ONLINE” or “OFFLINE”. The “OFFLINE test” allows you to logout after you started the test and come back later to check the results. Using the “ONLINE test”, you have to stay logged in to the system.

We recommend you use the “OFFLINE test”. The “ONLINE test” will be deactivated in future.

3.2.1 Compliance test

After uploading all needed forms to the data portal (see: [3.1 Uploading data for a submission](#)), you can start the compliance test.

The test will check:

- Column-wise structure of all forms
- Data types used
- Completeness of mandatory attributes
- Codes used for categorized variables
- File type (CSV) and used character set (UTF-8)

All specifications are described in more detail under <https://icp-forests-org/documentation>

The test results will be documented and can be downloaded as a PDF report by pressing the document icon.

After passing the compliance test you can go on with the next step: the conformity test.

3.2.2 Conformity test

Each survey has specific tests for content errors, which are executed during the conformity test.

Violating a test routine will end up in a “warning” or an “error”. In order to pass this test successfully,

- all warnings need to be either confirmed or corrected and
- all errors have to be corrected (no confirmation is possible).

An example of a list of warnings is shown below:

DOWNLOAD WARNINGS AS CSV
UPLOAD CONFIRMATION WARNINGS FROM CSV

Because some warnings but no errors occurred, you have the chance to confirm those data:

Confirmation Details for Deposition

Nr.	Sequence	Issue	Data File	Line	View	Confirm
1	4	value sampler_surface: 0.948 not in range between 0.025 and 0.5 (Rule_ID:)	042019.PLD	5		<input type="checkbox"/>
2	7	value sampler_surface: 1.023 not in range between 0.025 and 0.5 (Rule_ID:)	042019.PLD	8		<input type="checkbox"/>
3	12	value sampler_surface: 0.736 not in range between 0.025 and 0.5 (Rule_ID:)	042019.PLD	13		<input type="checkbox"/>

You can check the data by clicking the table icon in the “View” column.

The corresponding line which raised the warning is highlighted in red (see below).

```

1;4;101;1;001;+54;+10;1;211218;211219;14;1;1;0.031;27;
2;4;101;2;001;+54;+10;1;211218;211219;14;1;1;0.031;3;
3;4;101;3;001;+54;+10;1;211218;211219;14;1;1;0.05;1;WetOnly
4;4;101;4;001;+54;+10;1;211218;211219;13;1;1;0.948;4;basal area in 1.30 m high of the 4 stemflow trees
5;4;301;1;001;+52;+10;3;271218;231219;16;1;1;0.031;15;
6;4;301;2;001;+52;+10;3;271218;231219;15;1;1;0.031;3;
```

If a data correction is necessary, adapt your dataset and repeat step [3.1 Uploading data for a submission](#).

If you consider your data to be correct despite the warning, then there are two ways of confirming their validity:

- by checking the checkbox in the column “Confirm”
- when many warnings must be checked and confirmed, you can download all warnings as a list by pressing “DOWNLOAD WARNINGS AS CSV”. You can then confirm warnings in the downloaded CSV by changing the value of the column “Warnstatus” from “0” to “1”. Afterwards, you can upload the list of confirmed warnings by pressing “UPLOAD CONFIRMATION WARNINGS FROM CSV”.

To complete the confirmation, press “Confirm the data”. Note that this button is located at the end of the list of warnings.

After passing the conformity test, you can finalize your submission.

3.3 Finalize a submission

When your data passed the tests successfully, you can finalize the submission: The system sends an email to the data management team of the PCC, and they will integrate your data with the final dataset. Afterwards, the system is open again for further submissions of this survey (see: Open a new submission).

To finalize a submission, press the button "Finalize".

4 Tab – INSPECT DATA



This tab allows you to have a **quick preview** of your data and to **download** your data.

4.1 Data preview

For a preview choose “table” from the drop-down menu labelled “Mode”.

Then choose the table to view from the list of data tables and press **show ...**.

You can further specify the survey year with the drop-down menu “year” and the maximum number of rows shown in the preview (“max lines”).

4.2 Data download

To download your data, choose “SURVEY” from the drop-down menu labelled “Mode”.

Choose any form from the desired survey, to download *all* forms from that survey (unintuitive, but true). Then press **show ...**.

Example: To download the survey “Deposition”, choose any of the forms “dp_pld”, “dp_lqa” or “dp_dem”). A download will always include all files (forms) of a survey.

You can define a single survey year to be downloaded by selecting it from the list “year”.

The download will be provided as CSV files in a ZIP archive.

The data structure is described in detail under <https://icp-forests.org/documentation>

4.2.1 Folder “adds”

The ZIP archive of a data download will always include a folder named “adds”.

Please read and check the content of the folder “adds” carefully. It includes a Data Availability Report which gives you a quick overview of the data availability for the downloaded survey (see: [Data Availability Report](#)).

For surveys including chemical analyses, “adds” includes also the ring test results in a file named “xx_rt.csv” and the easy to use combination of LQA information and ring test results in a file named “qif_xx.csv”.

All files provided are described in detail in an included README file.

5 Tab – DATA REPORTS



This tab provides different reports that can help you to get an easy **overview** of your data in the ICP Forests database, and to **identify potential gaps and problems**.

The reports are based on the data that is currently present in the ICP Forests database.

We recommend that you download and check these reports once per year after the annual submission. These reports should also be checked after each larger change or update to your data.

All Data Reports are provided as CSV files.

5.1 Data Availability Reports

The Data Availability Reports are aggregated overviews (tables) which can be downloaded for each survey. They are provided as part of the ZIP archive you receive when downloading data, in the folder “adds” (see [tab INSPECT DATA](#)). The reports summarize your available data in the central database. The structure of the report differs from survey to survey. It is exactly described in a README file.

!!! Please note !!!

Due to technical reasons, the Data Availability Reports provided with the data download are only created once a day. Please take into consideration that these reports have an update delay of up to 24 hours. The benefit is that these reports have a short download time, as they are not queried live. Especially for big datasets like Meteorology, this can save a lot of time.

In contrast, the Data Availability Reports downloaded from the tab “Data Reports” is created on the fly. If you want to check the completeness of data submitted on the same day, please use reports from this site. Be aware that reports for big datasets can take some time.

5.2 Missing submissions

These reports give a general overview about forms which may be missing completely for a specific survey year in the database.

Note: The content of these reports should be checked first, before the report “Missing plot years”.

5.3 Missing plot years

These reports give a general overview about plot-years which may be missing for a specific survey.

6 Tab – CHECKOUT DATA



The tab “CHECKOUT DATA” allows you to **download** your survey specific data for a year **in the format needed for a resubmission**.

The checkout option can also be used to download data which has not been submitted to the central database using this portal (see: [Tab – SURVEY SUMMARY](#)).

Please find a detailed description for this module under https://www.icp-forests.org/pdf/checkout_module.pdf

Example: Small corrections to a dataset

1. You found out that a value submitted in your deposition data from 2010 is incorrect.
2. You “Checkout” the deposition 2010 dataset, correct the mistake in the downloaded files.
3. Lastly, you can re-upload the corrected files and run the testing routines again.

This way, you do not have to recreate the necessary forms.

Example: Resubmission after a change in data structure

1. In 2018, it was decided to add a new attribute to a form. This new attribute is then available for submissions, including for survey years before 2018. You have measured this attribute already for a few years and would like to add it to your existing data.
2. When checking out your already submitted data, the download will fit to the new structure, including the newly added attribute as a blank column.
3. You could then easily add the values of this attribute to the dataset and resubmit it.

7 Additional Tabs



7.1 Tab – HELP/SETUP

This tab can be used to edit ...

- your user properties (Name, phone number, email address)
- your password.

7.2 Tab – CONTACT

This tab includes contact information and the imprint.

7.3 Tab – LOGIN / LOGOUT

This tab is simply used to login and logout from the data portal.