

Newsletter of the ICP Modelling and Mapping (M&M) of the Convention on Long-Range Transboundary Air Pollution - January 2023

Issued by CCE, CDM and ICP M&M Chair



Happy New Year 2023 dear colleagues and friends!

2022 has been an eventful year so far with progress to report in a number of projects and activities. This newsletter contains a brief review of these as well as an outlook on the upcoming tasks and events for 2023.

We wish you a wonderful year full of success and happiness, and in good health!

Recent activities of the ICP since early 2022 and upcoming events

March 2022 Expert Workshop on Ammonia, hybrid (online and in Dessau, Germany)

April 2022 CDM meeting, hybrid (online and in Sitges, Spain)

May 2022 38th ICP M&M TF meeting and CCE workshop, online

Sept. 2022 CCE, CDM and ICP M&M Chair attended Joint WGE &EMEP annual meeting in Geneva, Switzerland

Dec. 2022 Workshop on Critical Limits for SMB Critical Load, hybrid (online and in Vienna, Austria)

Feb. 2023 Attending first segment of the Extended Bureau Meeting (online)

March 2023 39th ICP M&M TF, 30th CCE and 4th CDM meeting in Prague, Czech Republic

April 2023 Attending second segment of the Extended Bureau Meeting in Uppsala, Sweden

⚠ Save the date 39th ICP M&M TF meeting: 28th – 30th March 2023 in Prague, CZ ⚠

You will soon receive an invitation to reserve a date in your agendas for our **2023 Task Force and centers meeting** which will be held from **Tuesday 28th until Thursday 30th March 2023**. The meeting will be held in Prague (CZ), hosted by the Czech Geological Survey with the support of the Ministry of the Environment of the Czech Republic. We hope that as many as possible will have the opportunity to travel to Prague, but there will also be a possibility to participate via a link.

Any question? @ alice.james@ineris.fr

The meeting will be preceded by a short expert workshop on "Modelling interaction between air pollution and climate change: N and C" organised by CDM. The workshop will be held at the same location in Prague as the TF meeting during the morning on Tuesday 28th of March.

Any question? @ cdm@ivl.se

CDM meeting in April 2022

The 3rd CDM meeting was held in Sitges (Spain) from 6th to 8th April 2022. Key themes were further development for biodiversity critical loads and the progress made on the WGE web-portal. The 20+ presentations at the meeting focused on scientific findings, monitoring data and results, model development and related activities outside CLRTAP. "Biodiversity" has been the most common key word followed by nitrogen, soils, modelling, interactions between nutrients, heavy metals and more.

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Task Force and CCE meeting in May 2022

Our 38th Modelling and Mapping Task Force meeting, together with the 29th Coordination Centre for Effects (CCE) meeting were held online from 3rd to 5th May 2022. It gathered ca. 70 participants, from 24 countries including 17 National Focal Centers, representatives of the Convention intergovernmental bodies, expert groups and scientific centres. The meeting allowed ICP M&M community to share information on recent progress in the field of Critical Loads and be informed on the progress of CCE activities.

Our 2022 report including the proceedings and notes from this meeting is available [on the CCE website](#).

Any question? @ alice.james@ineris.fr

Publication of newly revised empirical Critical Loads for nitrogen for natural and semi-natural ecosystems

After two years of work by 45 scientific experts coordinated by the CCE and B-WARE, the review of empirical critical loads for nitrogen (CL_{emp}N) has been finalized. The CL_{emp}N values were revised on the basis of new scientific data of the past 10 years including gradient studies and are linked to updated 2020 EUNIS classes. All CL_{emp}N values were adopted at the WGE/EMEP meeting in Geneva in September and can now be used for mapping. The corresponding report with tabulated CL_{emp}N values per EUNIS class is published on the homepage of UBA ([Link](#)). The associated press release can be read [here](#). Apart from detailed discussions on nitrogen effects on examined EUNIS habitats, the report contains an additional chapter giving examples and recommendations on how to use CL_{emp}N in national mapping and for nature conservation practices.

Any question? @ cce@uba.de

Publication of a new 2022 CCE Status Report

The CCE published a new status report. It is the first status report since the CCE was transferred from RIVM to UBA in 2018 and wraps up activities of the first five years of the new CCE. These activities include the coordination of the revision process of empirical critical loads for nitrogen, the most recent call for data, the update of the European background database and the visualization of European critical loads exceedances for eutrophication and acidification in maps based on modelled deposition values of the years 2000 – 2020 and of emission scenarios. The annex of the report contains national reports following the call for data. The report can be [downloaded from the CCE-webpage](#).

Any question? @ cce@uba.de

Publication of the NH₃ workshop report

More than ten years after the last update of CLRTAP critical levels for ammonia (Mapping Manual), new findings on the effects of ammonia on vegetation have been discussed in a workshop prepared by CCE and the German Environment Agency (UBA). The workshop was held in Dessau on March 28th & 29th March 2022 and offered the opportunity to exchange information on the effects of ammonia on vegetation and ecosystems and on national or regional programs which have been set up for the monitoring of ammonia in sensitive habitats. The workshop was part of the current work plan for the year 2022-2023 of CLRTAP and was organized in the framework of a R&D Project financed by the German Environment Agency (UBA). The results of the workshop are documented in a proceedings report that will be published by the CCE. A final draft version of the report is available at the [WGE/EMEP Meetings website](#). On 26th January, the CCE invites experts to an online meeting to discuss the transfer of the workshop results into the Mapping Manual. If you are interested, please contact cce@uba.de.

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Workshop on Critical Limits for SMB Critical Load

The CCE coordinates a project which is related to the review of the Critical Limits used in the modelling framework of the Simple Mass Balance (SMB) approach. This project is being conducted by the Austrian Federal Environmental Agency. Within this project, a workshop was held on 5 & 6th December 2022 as a hybrid (online and in Vienna, Austria) meeting. The findings of this workshop will be presented and further discussed at the upcoming ICP M&M TF meeting in Prague, CZ.

Any question? [@ cce@uba.de](mailto:cce@uba.de)

Literature research for the review of Critical Limits for heavy metals

Since 2005, the CLRTAP uses Critical Loads to assess the effects of heavy metals on human health and ecosystems. For this purpose, critical concentrations in environmental media are defined, the so-called critical limits. After more than 15 years, these impact thresholds should be reviewed. The German Environment Agency (UBA) together with the CCE commissioned a literature research to analyse which new effect data for heavy metals are available from experiments. The report of this literature review is available [at the UBA website](#). It is supplemented by a literature database and a data collection in Excel. Next steps including options for the revision of the critical limits and critical loads for heavy metals will be discussed at the upcoming ICP M&M TF meeting in Prague, CZ.

Any question? [@ cce@uba.de](mailto:cce@uba.de)

Call for Data on empirical critical loads planned

With the [publication](#) of the reviewed empirical critical loads ($CL_{emp}N$), the CCE will issue a Call of Data on $CL_{emp}N$ in the beginning of 2023 with a timeline of approximately six months.

Any question? [@ cce@uba.de](mailto:cce@uba.de)