

10 October 2024

To National Focal Centers of the ICP Modelling & Mapping (ICP M&M)

of Critical Loads & Levels and Air Pollution Effects, Risks and Trends

Subject: 2024/25 Call for Data of Critical Loads and Dynamic modelling

Policy relevant Critical Load dataset for the revision of the Gothenburg Protocol

Dear Madam or Sir,

The International Co-operative Program on Modelling and Mapping (ICP M&M) is pleased to invite you to participate in the Call for Data (CfD) 2024/2025 on Critical Loads and on Dynamic Modelling. The launch of this call was agreed at the 40th meeting of the ICP Modelling and Mapping Task Force along with the 31st meeting of the Coordination Centre for Effects on 23–25 April 2024 in Oslo¹, at the CDM workshop on 26 – 28 April in Copenhagen, and finally approved by the 10th joint session of EMEP Steering Body and Working Group on Effects on 9-13 September 2024 in Geneva.

The main objective of this Call for Data is to provide the most up-to-date and the most relevant national Critical Load data to be implemented into the policy assessments and scenario calculation for the ongoing revision of the Gothenburg Protocol. Furthermore, the two objectives of the Call for Data regarding Dynamic Modelling are to gather information from the National Focal Centres regarding dynamic modelling of air pollution effects on ecosystems and data sources and availability, and to provide scenario assessments of the impact of air pollution scenarios on ecosystems including impacts on biodiversity.

Below you find information on the envisaged process to plan your activities and resources until then.

Update of the Critical Loads for Eutrophication and Acidification

As convened in Oslo this call for data aims at updating national Steady State and Simple Mass Balance Critical Loads for terrestrial and freshwater ecosystems, in combination with empirical Critical Loads. Countries are encouraged to submit their most up-to-date national data in coherence with the instructions for:

- Critical Loads of acidity (CL_{acid})
- Critical Loads of eutrophication (CL_{eut})

NFCs are kindly asked to prepare a report including either their updated national data or the confirmation of earlier submitted national data, indicating the previous submission date. The updated Critical Loads data will be integrated in the policy relevant dataset on Critical Loads, which will be used for optimization calculations with the GAINS model to inform the other bodies of the Convention on Long Range Transboundary Air Pollution (CLRTAP) on gap closure options to protect ecosystems from eutrophication and acidification risks. Please note that for those countries who do not respond to the present Call for data, the CCE will provide gap filling.

¹ https://unece.org/sites/default/files/2024-07/Item%204b%20ECE_EB.AIR_GE.1_2024_INF%2012%20ICPMM-2.pdf

For documentation purposes and for potential publication within the next CCE Status Report (planned in 2025), the ICP Modelling and Mapping NFCs should provide a short report containing the following information:

- a. Description of the national approach implemented for modelling and mapping Critical Loads
- b. Key findings of the activity
- c. Gap analysis regarding available ecosystem types and proposals for potential improvements of the data and the documentation

A more detailed description of the technical requirements can be found in the attached document including CCE instructions for the call ("Instructions_CCE-CfD_2024.pdf").

Deadline

The first outcome following responses to this CfD will be discussed at the next ICP Modelling and Mapping Task Force meeting in Helsinki in the week of 17 February 2025. To prepare the meeting discussions, NFCs are kindly asked to send first draft results, data and reports to the CCE by 31 January 2025. **The final submission of the contribution including reports should be delivered to the CCE by 31 March 2025 at the very latest.**

Dynamic modelling: Information sharing and scenario analysis

On the fifth CDM meeting held in Copenhagen in August 2024, the role of Dynamic Models within the work of the WGE and the Convention was discussed. The meeting concluded that dynamic modelling could provide input for scenario assessment, including impact on biodiversity.

In this dynamic modelling part of the CfD, NFCs are kindly asked to provide information on national usage of DM of ecosystem effects, including effects on biodiversity, and the data used.

We also ask for ex-post analysis of the scenarios for gap closures developed by CIAM for the Gothenburg Protocol review. We do not prescribe which models or what ecosystem parameters. As an example, if there is one country with an active modelling group interested in effects of air pollution on terrestrial biodiversity, we would much appreciate if the existing models were used to assess the CIAM scenarios with respect to the effects on biodiversity. If in another country the national interest and available models focus on surface water chemistry, we would be equally interested in having the model used to evaluate the same CIAM scenarios with respect to surface water chemistry.

National answers will be synthesized in a report to WGE, where we provide a synthesis of dynamic models use which will help us to shape up future modelling strategy. For further specification of the CfD please see the instructions provided by CDM ("Instructions_CDM-CfD_2024").

Deadline

There is no intermediate deadline for this part of the call. **The final submission of the contribution including reports should be delivered to CDM by 31 March 2025 at the very latest.**

The Call for Data as a major goal

The Chairs of the Task Force of the ICP Modelling & Mapping, the Coordination Centre for Effects and the Centre for Dynamic Modelling expect national results of this call to be an important step in the Gothenburg Protocol revision process, which is one of the key policy instruments of the Convention to improve transboundary air quality in the UNECE region.

Please send any input to both CCE or CDM, and the Chair of ICP Modelling and Mapping (contact details below) and do not hesitate to contact us if you have any questions in this regard.

Best regards,

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