

ICP Modelling and Mapping CCE

2014 results and 2015 outlook

Anne-Christine.Le-Gall@ineris.fr

Jean-Paul.Hettelingh@rivm.nl

The 2012-2014 call for data: The “no net loss of biodiversity” indicators are to assess N impacts on ecosystems

Approaches to biodiversity are possible through a variety of indicators

- 2012-2014 call for data: red list species, species cover, species abundance, ecosystem services...

ICP M&M TF and CCE WS in Rome discussed and proposed that:

- A common “habitat suitability index” is proposed to all parties to calculate
- Each party may calculate also its most relevant biodiversity indicator
- Still some methodological developments to be overcome
 - A reference situation
 - List of species characteristics of ecosystems

The “no net loss biodiversity indicators” are aimed at setting priorities for monitoring and collection of other data in view of policy needs and financial constraints

The “habitat suitability index” is to be used for integrated assessment modelling.

The no net loss biodiversity approach is to be used

- for valuation of ecosystem services and biodiversity,
 - Economic valuation of ozone and nitrogen impacts: maintaining biodiversity may cost (at least?) 8 billion euros.
 - Benefits of regulation of air pollution on Natura 2000 sites are similar to their costs
- To compare with other policy relevant indicators, such as carbon sequestration or ozone impacts (synergies or trade off).

The approach will benefit from NFCs participation to European research programmes (BioScore, Eclairé)

The future development of no net loss of biodiversity indicators is subject to availability of resources

Future developments of no net loss of biodiversity through a call 2014-2015 call for data (cf Max Posch's presentation)

Funding is a preoccupying issue for many NFCs

Funding is a preoccupying issue also for CCE

Other examples of policy support: Contribution to a text for the European Union of a New Clean Air Policy Package

CCE, ICP Vegetation, ICP Waters, ICP Forests, ICP Integrated monitoring have contributed to develop reporting guidelines to the EU clean air policy package (Annex V).

CCE produced an update of the core set indicator on eutrophication for the European Environment Agency (EEA)

Contribution to the Assessment Report / Trends Report.

Relations to countries within and without UNECE

Collaboration with China is on-going

Effective collaboration with USA

- Critical loads are being calculated in the USA

Participation of EECCA countries to ICP M&M and CCE WS low this year due to lack of funding

Outreach to other programmes

Collaboration with other ICPs on going, often at NFCs levels

- Within countries, meetings between NFCs of different ICPs and TF with their policy makers are developing.
- ICP IM contributed to the development of biodiversity modelling
- ICP Forests is expected to provide data to ICP M&M NFCs
- Discussions about a common ICP V and ICP M&M workshop on interactions of N and O₃ impacts.
- Collaboration with Habitat experts at CCE level and various NFCs

FP7 Eclairé research programme

Update of the Mapping Manual

Updated versions of the 8 chapters prepared and available as informal documents (N° 4 to 11). Work funded by Germany and France.

Chapter		pp	Contributions from
I	Introduction	16	CCE
II	Guidance on mapping concentrations levels and deposition levels	33	CCE
III	Mapping critical levels for vegetation	137	ICP Vegetation
IV	Mapping of effects on materials	20	ICP Materials
V	Mapping critical loads on ecosystems	107	ICP Waters, CCE
VI	Dynamic modeling	42	ICP Waters
VII	Exceedance calculations	12	CCE
VIII	General mapping issues	22	CCE
Total		389 pages	

Update of the Mapping Manual

Objectives

- Remove or modify “obsolete” sentences or sections
- Add relevant new information on science or regulations
- Add literature references

Still to be done

- Complete the update on technical issues with the contribution of CCE
- Review by ICP M&M NFCs
- Discussions and, hopefully, validation of the Manual by consensus at the 2015 ICP M&M TF

Translation into russian to be organised by Secretariat when document finalised (post TF M&M, april 2015)

Proposed management for the future allows regular updates

- Draft updated text submitted to relevant ICP TF(s) and their NFCs
 - ⇒ Consensus on text
 - ⇒ Text consolidated by relevant ICP
 - ⇒ Final Word version “stored” by ICP M&M
- Updated english version posted on ICP M&M and ICP relevant ICP websites (pdf)
- Russian version if funds available

Update of the Manual: presentation of the main changes

Chapter 1 describes

- The ICP M&M and CCE activities
- The general purposes and goals of the critical loads and their Manual

Chapter 2 is a description of deposition models

- Has been shortened with the aim to keep a general description of atmospheric modelling, as background information for the users of atmospheric modelling results
- May deserve to be even more shortened

Two chapters have been finalised by ICP Vegetation and ICP Materials

Chapter 3 has been prepared by ICP Vegetation

- Up to date ozone flux calculations

Chapter 4 has been prepared by ICP Materials

- Up to date calculations for impacts (soiling, corrosion) on materials (buildings, glass, metallic structures...)

Chapter 5: Main changes are relative to nitrogen impacts Further modifications may be needed on heavy metals

- Empirical critical loads: Table and text from proceedings of Noordwijkerhooft workshop (Bobbink and Hettelingh, 2011)
- New text: Biodiversity indicator: descriptive, reflects current knowledge (sources: CCE documents)
- Critical loads for aquatic systems: reviewed through a contribution of ICP Waters (R. Wright)
- Heavy metals: Recent EU regulation mentioned but Manual recommended thresholds unchanged
 - Need for an expert assessment (workshop?)

The opportunity has also been taken to update science and text for the last 3 chapters

Chapter 6: dynamic modelling

- Few changes proposed by R. Wright (ICP Waters)

Chapter 7: Exceedance calculations

- Move a section on accumulated average exceedance from Ch 8 to Ch 7
- Update figures
- Remove obsolete section (exceedance isolines)

Chapter 8: Mapping issues

- Update the description of models used by EMEP and source of information for WGE

WELCOME TO ZAGREB

25th CCE WS & 31st Task Force on Modelling & Mapping Zagreb, 20-23 April 2015



Common ICP V and M&M Workshop
of Ozone and nitrogen impacts

workplan item 1.8.3