



United Nations Economic Commission for Europe (UNECE)
Convention on Long-range Transboundary Air Pollution

Working Group on Effects (WGE)

**International Cooperative Programme (ICP) on
Integrated Monitoring of Air Pollution Effects on Ecosystems**

Minutes of the twenty-fourth Programme Task Force held on May 24-26 2016 in Asker, Norway

I. Introduction and opening of the meeting

1. The meeting was organized jointly with the International Cooperative Programme on Assessment and Monitoring of the Effects of Air Pollution on Rivers and Lakes (ICP Waters). The meeting arrangements were carried out by ICP Waters. Meeting was attended by 49 experts from the following Parties to the Convention on Long-range Transboundary Air Pollution (CLRTAP): Austria, the Czech Republic, Finland, Germany, Italy, the Netherlands, Norway, Poland, Russian Federation, Sweden, Switzerland, the United Kingdom and the United States of America. In addition representatives for Working Group on Effects (WGE), ICP Modelling and Mapping (ICP M&M) and Joint Expert Group on Dynamic Modelling attended (JEG DM). The list of participants is attached as Annex I.
2. Ms. E.-M. Åsen, Ministry of Climate and Environment, Norway, welcomed all participants to the joint ICP Waters and ICP IM meeting in Asker, Norway.
3. Ms. G. Bentzen, Administrative director of the Norwegian Institute for Water Research (NIVA) opened the meeting.
4. Mr. G. Skotte, the Chair of ICP Waters and Mr. L. Lundin, the Chair of ICP IM, welcomed all participants to the joint Task Force meeting in Asker Norway and thanked Norway for hosting the meeting and also thanked Ms. de Wit, the local organizer.
5. The joint Task Force adopted the agenda of the meeting (Annex II) including the full list of presentations.

Detailed notes from the jointly organized meeting can be found in the meeting report of ICP Waters (see: <http://www.icp-waters.no/LinkClick.aspx?fileticket=Hl%2b8YaAccmc%3d&tabid=154>).

Below only notes from the short separate Task Force meeting of ICP IM are provided.

II. Separate ICP IM Task Force Session

6. Mr. Lundin, Chair of ICP IM, opened the separate ICP IM TF session attended by 20 participants.

7. Task Force approved the minutes of the 23rd ICP IM TF in Minsk, Republic of Belarus, 2015.

8. Mr. Lundin presented the Report from Chairman and CP IM programme activities since the last Task Force meeting. For details, please see part three of the Explanatory notes:

<http://www.syke.fi/download/noname/%7B1C28D79C-CD0A-49AF-880C-B43B3F62CB27%7D/118348>

and corresponding presentations:

<http://www.syke.fi/download/noname/%7BD0D33B75-BDE7-437E-AF69-37514B0ADB32%7D/119378>

and

<http://www.syke.fi/download/noname/%7BBE7AFE9D-9558-41D9-969F-AB0880191A7D%7D/119379>

Part of this information is also available in chapter 1 of the (draft) 25th Annual Report (AR) 2016.

9. Ms. S. Kleemola (ICP IM Programme centre) described the status of data reporting to the Programme Centre. The following fourteen countries have continued data submission to the ICP IM data base during the period 2011-2015: Austria, Belarus, the Czech Republic, Estonia, Finland, Germany, Ireland, Italy, Lithuania, Norway, the Russian Federation, Spain, Sweden, and a site on Crimean peninsula.

Presently the number of ICP IM sites with on-going data submission, data for at least part of the period 2010 - 2014, is forty-one. Switzerland has included a site in 2016, site description is included in the present Annual Report. Poland is preparing the data and will soon include one or more sites to the network. Altogether eleven countries submitted data for the data year 2014, so far.

The Programme Centre requested National Focal Points to submit 2015 data by 1st of December 2016, using same procedure as earlier. Mr. Forsius Programme Manager of ICP IM stressed the importance of reporting especially the data relevant to the on-going evaluations and scientific work.

10. The Task Force agreed on the workplan of ICP IM for 2016 and tentatively for 2017-2018, see Annex III for details.

In the second half of 2016 and in 2017, ICP Integrated Monitoring is going to contribute to or produce the following deliverables:

(a) The 2016 joint progress report on the activities of the International Coordinated Programmes and the Joint Task Force on the Health Aspects of Air Pollution

(b) Finalize the 25th Annual Report (covering activities in 2015-16)
Draft Annual Report available at:

<http://www.syke.fi/download/noname/%7BA30E723C-2123-4711-B7E9-D7344349F032%7D/118689>

- 1) Report on dynamic responses of vegetation changes in relation to nitrogen is included as a chapter in the Annual Report: Dynamic modelling of soil and vegetation at selected ICP IM sites (Maria Holmberg, Thomas Dirnböck, et al.)
- 2) Report on long-term trends of S and N effects is also presented in the Annual Report as: Trend assessment for deposition and runoff water chemistry and climatic variables at ICP IM sites in 1990–2013 – Interim report (Jussi Vuorenmaa et al.)

- (c) Finalize the scientific paper: Long-term sulphate and inorganic nitrogen mass balance budgets in European ICP Integrated Monitoring catchments (1990–2012) (J. Vuorenmaa et al.), in review (to be finalized according to review comments received)
- (d) A report on mercury in the aquatic environment; Joint Report together with ICP Waters (in 2017)
- (e) Progress report on connections between calculated CL exceedances and observed impacts of N (in 2017)

11. The participants were reminded to provide written comments and possible additions (short National reports) to the draft Annual Report by 27th of June 2016.

12. The Task Force discussed the continuation of Joint Task Force meetings and agreed that Joint meetings should be arranged also in the future, but not every year.

13. Mr. Lundin informed that there are preliminary plans to organize the next ICP IM Task Force meeting in Poland in 2017.

Annex I: Participants at the joint ICP IM & ICP Waters Task Force meeting

Austria

Mr. Johannes Kobler
Umweltbundesamt Environment Agency Austria
Spittelauer Lände 5
1090 Wien, Austria
johannes.kobler@umweltbundesamt.at

Czech Republic

Mr. Jakub Hruška
Czech Geological Survey
Klarov 3
118 21 Prague 1, CZ
Czech Republic
jakub.hruska@geology.cz

Mr. Pavel Kram
Czech Geological Survey
Klarov 3
118 21 Prague 1, CZ
Czech Republic
pavel.kram@geology.cz

Mr. Milan Vana
Czech Hydrometeorological Institute
393 01 Kosetice, Czech Republic
milan.vana@chmi.cz

Finland

Mr. Jussi Vuorenmaa
Finnish Environment Institute (SYKE)
P.O. Box 140
FIN-00251 Helsinki, Finland
jussi.vuorenmaa@ymparisto.fi

Ms. Maria Holmberg
Finnish Environment Institute (SYKE)
P.O. Box 140
FIN-00251 Helsinki, Finland
maria.holmberg@ymparisto.fi

Mr. Martin Forsius
Finnish Environment Institute (SYKE)
P.O. Box 140
FIN-00251 Helsinki, Finland
martin.forsius@ymparisto.fi

Ms. Sirpa Kleemola
Finnish Environment Institute (SYKE)
P.O. Box 140
FIN-00251 Helsinki, Finland
sirpa.kleemola@ymparisto.fi

Mr. Martti Rask
Luonnonvarakeskus
Survontie 9 A
40500 Jyväskylä, Finland
martti.rask@luke.fi

Germany

Mr. Burkhard Beudert
Sachgebiet Naturschutz und Forschung
Freyunger Str. 2
D- 94481 Grafenau, Germany
burkhard.beudert@npv-bw.bayern.de

Mr. Hubert Schulte-Bisping
University Göttingen
Büsgenweg 2
D-37077 Göttingen, Germany
hschult1@gwdg.de

Italy

Ms. Alessandra DeMarco
 ENEA CR Casaccia
 Via Anguillarese 301
 00123 Rome, Italy
alessandra.demarco@enea.it

Ms. Michaela Rogora
 Largo Tonolli 50
 I-28922 Verbania Pallanza (VB), Italy
m.rogora@ise.cnr.it

The Netherlands

Mr. Herman van Dam
 Consultancy for Water and Nature
 Spyridon Louisweg 141
 NL-1034 WR AMSTERDAM, the Netherlands
herman.vandam@waternatuur.nl

Mr. Max Posch
 RIVM/CCE
 P.O.Box 1
 NL-3720 BA Bilthoven, the Netherlands
max.posch@rivm.nl

Norway

Ms. Kari Austnes
 Norwegian Institute of Water Research (NIVA)
 Gaustadalléen 21
 N-0349 Oslo, Norway
kari.austnes@niva.no

Heleen de Wit
 Norwegian Institute of Water Research (NIVA)
 Gaustadalléen 21 N-0349 Oslo, Norway
heleen.de.wit@niva.no

Mr. Hans Fredrik Veiteberg Braaten
 Norwegian Institute of Water Research (NIVA)
 Gaustadalléen 21
 N-0349 Oslo, Norway
HansFredrik.VeitebergBraaten@niva.no

Mr. Godtfred Anker Halvorsen
 LFI, Uni Research Miljø (Uni Research
 Environment)
 Nygårdsgaten 112-114
 5006 Bergen, Norway
Godtfred.Halvorsen@uni.no

Ms. Leah Jackson-Blake
 Norwegian Institute of Water Research (NIVA)
 Gaustadalléen 21
 N-0349 Oslo, Norway
leah.jackson-blake@niva.no

Mr. Øyvind Kaste
 Norwegian Institute of Water Research (NIVA)
 Jon Lilletuns vei 3
 N-4879 Grimstad
oyvind.kaste@niva.no

Mr. Bjorn Olav Rosseland
 Norwegian Institute of Water Research (NIVA)
 Gaustadalléen 21 N-0349 Oslo, Norway
bjorn.rosseland@umb.no

Mr. James Sample
 Norwegian Institute of Water Research (NIVA)
 Gaustadalléen 21
 N-0349 Oslo, Norway
james.sample@niva.no

Mr. Gunnar Skotte
 Norwegian Environment Agency
 Strømsveien 96
 0663 Oslo, Norway
gunnar.skotte@miljodir.no

Ms. Susanne Schneider
 Norwegian Institute of Water Research (NIVA)
 Gaustadalléen 21
 N-0349 Oslo, Norway
susi.schneider@niva.no

Mr. Haakon Thaulow
 Norwegian Institute of Water Research (NIVA)
 Gaustadalléen 21
 N-0349 Oslo, Norway
haakon.thaulow@niva.no

Ms. Brit Lisa Skjelkvåle
 University of Oslo
 Postboks 1047 Blindern
 N-0316 Oslo, Norway
b.l.skjelkvale@geo.uio.no

Ms. Merete Ulstein
 Norwegian Institute of Water Research (NIVA)
 Gaustadalléen 21
 N-0349 Oslo, Norway
merete.ulstein@gmail.com

Mr. Salar Valinia
Norwegian Institute of Water Research (NIVA)
Gaustadalléen 21
N-0349 Oslo, Norway
Salar.valinia@niva.no

Ms. Bente Wathne
Norwegian Institute of Water Research (NIVA)
Gaustadalléen 21
N-0349 Oslo, Norway
bente.wathne@niva.no

Mr. Gaute Velle
LFI - University of Bergen
Alleg. 42
N-5007 Bergen, Norway
Gaute.Velle@uib.no

Mr. Richard Wright
Norwegian Institute of Water Research (NIVA)
Gaustadalléen 21
N-0349 Oslo, Norway
richard.wright@niva.no

Poland

Mr. Krzysztof Skotak
Institute of Environmental Protection
Ul. Kolektorska 4
01-692 Warszawa, Poland
krzysztof.skotak@ios.edu.pl

Mr. Rafał Ułańczyk
Institute of Environmental Protection
ul. Krucza 5/11d
00-548 Warszawa, Poland
rafal.ulanczyk@ios.edu.pl

Russian Federation

Ms. Marina Dinu
V.I.Vernadsky Institute of Geochemistry and
Analytical Chemistry RAS (Geokhi Ran)
Kosygin Street 19, 119991 Moscow, Russia
marinadinu@rambler.ru

Spain

Mr. David Elustondo
Laboratorio Integrado de Calidad Ambiental (LICA)
Universidad de Navarra Irunlarrea
1 31080 Pamplona, Spain
delusto@unav.es

Sweden

Mr. Jens Fölster
Swedish University of Agricultural Sciences
P.O Box 7050
75007 Uppsala, Sweden
jens.folster@slu.se

Mr. Staffan Åkerblom
Swedish University of Agricultural Sciences
P.O Box 7050
75007 Uppsala, Sweden
staffan.akerblom@slu.se

Mr. Lars Lundin
Swedish University of Agricultural Sciences, SLU
P.O Box 7050
75007 Uppsala, Sweden
Lars.Lundin@slu.se

Mr. Filip Moldan
IVL Swedish Environmental Research Institute
P.O Box 53021
SE-400 14 Göteborg, Sweden
filip.moldan@ivl.se

Mr. Peringe Grennfelt
IVL Swedish Environmental Research Institute
P.O Box 53021
SE-400 14 Göteborg, Sweden
peringe.grennfelt@ivl.se

Switzerland

Mr. Luca Colombo
Uffici protezione aria, Sezione protezione aria,
acqua e suolo
Via S. Salvioni 2A
6500 Bellinzona, Switzerland
luca.colombo@ti.ch

Ms. Sandra Steingruber
Ufficio protezione aria, Sezione protezione aria, acqua e suolo
Via S. Salvioni 2A
6500 Bellinzona, Switzerland
sandra.steingruber@ti.ch

Mr. Andreas Bruder
Area idrogeologia
Istituto scienze della Terra
Trevano - Blocco C
Via Trevano, 6952 Canobbio
andreas.bruder@supsi.ch

United Kingdom

Mr. Don Monteith
Centre for Ecology & Hydrology
Lancaster Environment Centre
Library Avenue
Bailrigg, Lancaster
LA1 4AP, United Kingdom
donm@ceh.ac.uk

USA

Mr. John Stoddard
U.S. Environmental Protection Agency
Environmental Research Laboratory
200 SW 35th Street
Corvallis, OR 97333, USA
stoddard.john@epa.gov

Annex II: Agenda for the Joint ICP Waters and ICP IM Task Force meeting May 24-26, 2016

Venue: Holmen Fjordhotell in Asker

Introductions

- Meeting welcome, *Eli-Marie Åsen, Ministry of Climate and Environment*
- Meeting welcome, *Greta Bentzen, Administrative director of NIVA*
- Opening words, *Gunnar Skotte, ICP Waters & Lars Lundin, ICP IM*
- Adoption of the agenda, *Gunnar Skotte, ICP Waters Chairperson*
- General information about the meeting and excursion, *Heleen de Wit, local host*
- Small calibrated catchments - important response units for environmental change, *Øyvind Kaste, Programme Centre ICP Waters*
- Report from the Working Group on Effects, *Peringe Grennfelt, Chair of the Working Group on Effects*
- Reports from other ICPs - (ICP M&M, JEG)

Summary of the ICP Programme activities 2015/2016

- Status of the ICP Waters programme, and report on common work for effect-oriented programmes under the Working Group on Effects, *Heleen de Wit, Programme Centre ICP Waters*
- Status of the ICP Integrated Monitoring programme, *Lars Lundin, Chair ICP IM*

Acidification and recovery

- Long-term sulphate and inorganic nitrogen mass balance budgets in European ICP Integrated Monitoring catchments, *Jussi Vuorenmaa, Programme Centre ICP IM*
- Monitoring recovery of acidification and effects of climatic change in shallow soft water lakes in The Netherlands: Temperature, hydrology, chemistry, diatoms *Herman van Dam, the Netherlands*
- Features of Recovery of the Kola North lakes in reducing atmospheric deposition (1990-2014) *Tatiana Moiseenko and Marina Dinu, Russian Federation*
- Cold, dark and lifeless: the future of northern lakes? *Jens Fölster, Sweden*
- Phosphorus trends *John Stoddard, US*

Heavy metals and POPs

- Evaluating the temporal trends of mercury concentrations in Norwegian freshwater fish - a study of 25 years of data (common ICP Waters and ICP IM report: Mercury), *Hans Fredrik Braaten, Programme centre ICP Waters*
- Progress report of Hg and heavy metals in terrestrial and aquatic ecosystems in Nordic countries, *Staffan Åkerblom, Programme centre ICP IM*
- Increased mercury concentrations of perch in Finnish lakes recovering from acidification, *Martti Rask, Finland*

Critical loads/Dynamic modelling

- Dynamic modelling (VSD+) at selected ICP IM sites, *Maria Holmberg, Programme Centre ICP IM*
- MAGIC library in Sweden - consequences of new forestry scenario's and impacts on critical loads calculations, *Filip Moldan, Sweden*

Critical thresholds and biology recovery

- The 2015 ICP Waters report: An attempt to tweeze out the effect of climate change as driver of biodiversity in acidified waters, *Gaute Velle, Programme subcentre ICP Waters*
- Monitoring of acid sensitive lakes in Norway: comparison of ecological status based on water chemistry and biology, *Ann-Kristin Schartau, Norway*
- Critical loads and critical limits - a Swedish-Norwegian comparison, *Kari Austnes, Norway*

Climate change

- Drought induced chemistry changes in stream waters recovering from acidification. *Jakub Hruska, Czech republic*
- Lago Nero - a new site to assess the effects of environmental change on high-alpine lakes and their catchments. *Andreas Bruder, Switzerland*
- DOC trends explained by climate?, *Heleen de Wit, ICP Waters*

Common work for all ICPs, current issues from WGE, potential for more collaboration between ICPs

- Common reports – mercury and possible new topics, *Heleen de Wit ICP Waters, Martin Forsius ICP IM*
- The upcoming EU directive on National Emission Ceilings and cooperation with AMAP, *Martin Forsius, ICP IM*
- Current issues that have emerged from WGE: joint meetings, data portal, open data access, Assessment Report, WGE trend Report *Programme centres*
- Items for discussion from National Focal Points

Workplans (separate meetings for ICP W and ICP IM)

- Workplan, *Programme centres*
- Adoption of the minutes

Other Business

- Evaluation common meeting
- TF meeting(s) 2017

Annex III: ICP IM workplan for 2016 and tentatively for 2017–2018

Activity	Time-frame	Responsible
ICP IM work plan 2016		
Joint Report 2016 of the ICPs, TF Health and Joint Expert Group on Dynamic Modeling	WGE 2016	UNECE Secretariat, WGE Bureau and ICP IM Programme Centre
Finalization of 25th Annual Report 2016 (short National reports are welcomed)	WGE 2016 (comments and national reports by 27 June 2016)	Programme Centre NFP contributions
Report on dynamic responses of vegetation changes in relation to nitrogen (chapter in AR 2016)	June 2016 WGE 2016	Programme Centre and NFPs of Austria and Sweden
Report on long-term trends of S and N effects (chapter in AR 2016)	June 2016 WGE 2016	Programme Centre, in cooperation with NFPs
Scientific paper on mass balances for sulphur and nitrogen in catchments (in review, to be finalized according to review comments)	2016 (Deadline for review comments 16 July 2016)	Programme Centre, in cooperation with NFPs
Reporting of activities common to all ICPs, the Task Force on Health and the Joint Expert Group on Dynamic Modelling	WGE 2016	Programme Centre and Chairman according to instructions of the UNECE Secretariat
Submission of quality controlled results for year 2015 to Programme Centre	December 1 st 2016	National Focal Points
Cooperation with other ICPs, particularly regarding dynamic modelling (all ICPs), cause-effect relationships in terrestrial systems (ICP Forests, ICP Vegetation), and surface waters (ICP Waters).	According to decisions at the TF meeting	According to decisions at the TF meeting
Inter laboratory comparisons under leadership of ICP Waters, ICP Forests and EMEP	ICP F and ICP W 2016 on-going	Voluntary activities of the National Focal Points
ICP IM draft work plan 2017-2018		
ICP IM Task Force meeting 2017		
ICP IM Annual Report 2017	Task Force and WGE 2017	Programme Centre in collaboration with NFPs
Report on mercury in the aquatic environment; Joint Report together with ICP Waters - ICP IM will contribute	Task Force and WGE 2017	NFP of Sweden and Programme Centre, in co-operation with other NFPs and ICP Waters

Progress Report on concentrations of heavy metals in important forest ecosystem compartments	Task Force and WGE 2017 AR 2017	NFP of Sweden and Programme Centre, in co-operation with other NFPs and ICP Waters
Progress Report on connections between calculated CL exceedances and observed impacts of N	Task Force and WGE 2017	Programme Centre in co-operation with NFPs Potential co-operation with ICP M&M
Cooperation with external organisations (International Long Term Ecological Research Network ILTER, LifeWatch, GEO BON). Progress reports	Task Force 2017	Programme Centre and NFPs eLTER EU-project activities
Develop concepts for multi pollutant – multi effect relationships (NO_x, O₃, acidity, heavy metals, POPs, etc). Progress reports/contributions to Annual Report OR presentations in Workshop	Task Force 2017	Voluntary activities at National Focal Points
Reporting of ICP IM activities to WGE	WGE 2017 and 2018	Programme Centre and Chairman
Scientific paper on long-term trends in the effects of S and N deposition - based on the work in AR 2016	Task Force and WGE 2018	Programme Centre and NFPs