



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 29th Programme Task Force 13-14 April 2021, held online

Tuesday April 13 – Scientific presentations and messages from other ICPs

1. The meeting was organized online by Swedish University of Agricultural Sciences, SLU. The number of registered participants was 40 from the following Parties to the Convention on Long-range Transboundary Air Pollution (CLRTAP): Austria, Canada, Czech Republic, Estonia, Finland, Germany, Italy, Latvia, Lithuania, Norway, Poland, Russian Federation, Spain, Sweden, and Switzerland. ICP programmes ICP Forests, ICP Waters and ICP Modelling and Mapping were represented. The Chair of Working Group on Effects (WGE) and representative of the CLRTAP Secretariat also participated. The list of participants is attached as Annex II.
2. Mr. Ulf Grandin and Mr. Salar Valinia, Co-Chairs of ICP IM welcomed all online participants and opened the Task Force meeting.
3. Reports from other ICPs
 - a) Mr. Kai Schwärzel, Chair of ICP Forests Programme, presented an update on latest activities of ICP Forests Programme including progress in the 2020-2021 work plan and news from the program. He also presented the study of heavy metals in forest floors and topsoils of ICP Forests Level I plots for the periods 1985-1999 (1st survey period) and 2000-2015 (2nd survey period). Mr. Schwärzel also presented the latest publications of the Programme Co-ordinating Centre and meetings in 2021.
 - b) Ms. Heleen de Wit, Chair of ICP Waters Programme, presented the status of ICP Waters: recent, ongoing and planned activities. She presented reports of the Programme Co-ordinating Centre and work plan 2020-2023, in which nitrogen report (trends and biological responses and relation to empirical critical loads) is under work, and report on biological recovery is planned to 2022. A review of the Gothenburg Protocol is ongoing, and ICP Waters is contributing to this process. Mercury and Minamata Convention and ICP Waters web page – with more up to date publication list for NFCs – are also key activities of ICP Waters. Ms. de Wit also presented the key results of repeated sampling of 1000 Norwegian lakes in 1995 and 2019.

- c) Mr. Filip Moldan, Chair of Centre of Dynamic Modelling (CDM), presented plans, progress and activities of ICP Modelling and Mapping in 2020-2021 and links to ICP IM activities. He highlighted the increasing co-operation between ICP IM and CDM. The discussions on co-operational issues - biodiversity and mass balance and element flux studies – will continue.
- d) Ms. Isaura Rabago, Chair of the Working Group on Effects, presented current activities and plans of the Working Group, with particular emphasis of the planned review process of the Gothenburg Protocol and expected contributions from the ICPs. A review process of the Gothenburg Protocol has started under the Convention, and a Policy Review Group (PRG) has prepared key questions to be answered by the different technical bodies of the Convention.
4. List of scientific presentations is attached as Annex I.
5. Revision of the Gothenburg Protocol, ICP IM activities

Mr. Martin Forsius, Head of ICP IM Programme Centre, presented the key questions for the review process of relevance for ICP IM, and key messages for these questions. The key questions of relevance are:

- 2.2.b. What is the annual change (or change every 5 years) in exceedance of critical loads for acidification and eutrophication between 1990 and 2018/2019 in terms of percentage ecosystems with exceedances and accumulated excess, based on current critical loads. What are projected changes up to 2030 and beyond?
- 2.2.c. What is the annual change (or change every 5 years) in water, soil and ecosystem quality indicators between 1990 and 2018/2019? What are projected changes up to 2030 and beyond?
- 2.7. Is the monitoring and modelling system of the Convention sufficient to observe, assess and project air pollution and its effects related to the Gothenburg Protocol in the ECE region? If no, what are the main challenges and what is needed to meet them?
- 2.8. What are the expected impacts of new scientific findings on environmental and health effects assessments, for example on: critical loads; critical levels of ozone, particulate matter, nitrogen dioxide and ammonia; dynamic modelling of ecosystem recovery; inclusion of marine ecosystems protection; interactions between air pollution, climate change, nitrogen fluxes and other stress factors for biodiversity (e.g. land use changes); additional or new metrics on health, damage to crops, ecosystems and/or materials?

The ICP IM Programme Centre has prepared first short answers to these questions and presented key references used to derive answers and sent them to the WGE Chair. Work will continue during spring/summer 2021.

Wednesday April 14 – the formal Task Force meeting

6. Break out group discussions about “IM Light”

Mr Salar Valinia, Chair of ICP IM Light working group, presented a new, extended monitoring concept for ICP IM with the aim to develop an extended monitoring strategy for ICP IM to be more including with different levels of monitoring intensity. There is a demand from Air

Convention and EU directive on National Emission Ceiling (NECD) to harmonize ecosystem monitoring connected to other ecosystem types than forests, to integrate monitoring with other ICPs under the WGE and to promote high international cooperation with other initiatives (e.g. eLTER, Life Watch) that reflects and integrates today's and future environmental problems.

Establishment of new ICP IM sites are difficult due to the large cost of starting and operating the monitoring programs, and in order to expand monitoring to more sites, a simplified monitoring of other ecosystem types is needed and desirable. The working group, which consists of members of ICP IM and representatives of EU-Commission and EEA, has identified three levels for the extended ICP IM monitoring strategy:

- Level 3: Full ICP IM site (monthly, catchment as stated in the current ICP IM Manual)
- Level 2: Plot scale with budgets on other ecosystem types (monthly)
- Level 1: Plot scale without budget (aiming for annual measurements, but accepting other temporal resolution) of soil and vegetation (plant list, cover, and chemistry)

The participants of the Task Force Meeting were divided in five groups to discuss key issues of the IM Light monitoring strategy. Mr. Salar Valinia collected the responses from each group, and IM Light working group will summarize the responses in its next meeting.

The Task Force considered IM Light monitoring strategy as important and necessary extension for biodiversity monitoring and Convention and Directive work and encouraged to continue the IM Light work.

7. Mr. Ulf Grandin, Co-Chair of ICP IM welcomed all online participants and opened the formal Task Force meeting.
8. The Task Force adopted the agenda of the meeting (Annex I)
9. The Task Force approved the Minutes from the 28th ICP IM Task Force meeting held online in 2020.
10. Reports from
 - a) the CLRTAP secretariat

Mr. Krzysztof Olendrzynski from the CLRTAP Secretariat presented the recent developments under the Convention on Long-Range Transboundary Air Pollution including highlights of the 58th session Working Group on Strategies and Review (14-17 Dec 2020) and 40th session of the Executive Body (18 Dec 2020), review of sufficiency and effectiveness of the Gothenburg Protocol, science – 6th joint session of EMEP Steering Body/Working Group on Effects (14-17 Sep 2020) and Extended Bureau meeting of EMEP Steering Body/ Working Group on Effects (1-4 March 2021), activities of capacity building and raising awareness (in EECCA countries) and communication and outreach.

b) Other items

Mr. Ulf Grandin presented the current status of ICP IM network. The ICP IM network presently covers 48 active sites from 15 active countries. Canada has shown interest to re-join to IM network.

c) Long-term strategy 2020-2030

Mr. Ulf Grandin presented the long-term strategy for the Convention until 2030, which was decided by the Executive Body in 2018. Mr. Grandin presented key issues from selected headlines from a 15 pages document: i) strengths and success of the Convention, ii) remaining challenges, and iii) strategic priorities of the Convention.

d) eLTER development of eLTER RI and MoU with WGE

Mr. Grandin presented cooperation with eLTER. LTER Europe is currently building up a formalised European Research Infrastructure (eLTER RI) for long term ecosystem research and monitoring. The RI will consist of ca. 200 highly equipped field stations that will be recruited from the current European LTER network comprising about 460 stations. A majority of the IM sites are also LTER sites and may be selected for the eLTER RI. A letter of cooperation (LoC) between IM and eLTER has been discussed, and now there are plans of a LoC between WGE and eLTER. The Task Force also discussed the potential connection between eLTER and IM Light, e.g. by incorporating eLTER sites to extended IM Light network. The discussion on future cooperation with eLTER will continue.

11. Future location of the ICP IM Programme Centre

Mr. Martin Forsius, Head of ICP IM Programme Centre, announced that Finnish Environment Institute (SYKE) may not be able to host the ICP IM Programme Centre in the future. The Swedish University of Agricultural Sciences (SLU) has indicated interest in taking over this role. However, all countries in ICP IM are invited to declare interest in taking over this important task, including hosting the Programme Centre or a sub-centre. Potentially interested parties should contact the head of the Programme Centre (Martin Forsius) before May 15, 2021. The changes in the programme structure will be decided by the Working Group on Effects and the Executive Body.

12. Activities during 2020/2021 – Information

Mr. Ulf Grandin presented the ICP IM activities since last Task Force meeting. Most important issues were:

- ICP IM participated or was represented at 12 international meetings directly related to the IM core activities.
- The Programme Centre received the 2019 data from most IM sites, data are now stored in the ICP IM database, see also Minutes item 16.
- The listed scientific outputs in the WGE 2020-2021 work plan are about to be completed (see table below).
- The chairs and Programme centre have together with a group of experts from the IM

community developed the “IM light” concept, see also Minutes item 6.

- The chairs and Programme centre have contributed to a WGE report on the revision of the Gothenburg protocol, see also Minutes item 5.

All activities will be listed in the 30th Annual Report from ICP IM, which will be available in August from the ICP IM web site: <https://www.syke.fi/nature/icpim>.

From the WGE 2020-2021 work plan:

<i>Work plan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Outcome</i>
1.1.1.15	Scientific paper on impacts of internal catchment-related nitrogen parameters to total inorganic nutrient nitrogen (TIN) leaching.	Scientific paper (2021)	MS submission planned after summer
1.1.1.16	Report on Hg and HM trends in concentrations and fluxes across ICP Integrated Monitoring sites in Europe.	Report (2020)	Report in 29 th IM Annual Report. Planned scientific article
1.1.1.17	Scientific paper on effects of nitrogen enrichment on forest vegetation. A co-operation between ICP Integrated Monitoring and ICP Forests.	Scientific paper (2021)	Submitted manuscript

13. Revision of the Gothenburg Protocol

Task Force discussed shortly on the review process of the Gothenburg Protocol, which was presented in the TF meeting on 13. April (see Minutes item 5).

14. Work plan and future work priorities

Mr. Ulf Grandin presented the following items as ICP IM work plan for the 2022-2023 WGE work plan:

Suggested IM activities in the WGE 2022-23 Work Plan	Time frame	Responsible
Operationalise and advertise “IM light” as an attractive monitoring protocol, aiming at adding more ecosystem types in the IM monitoring	2022	IM Chairs and Programme Centre

Continued work on the trends in ecosystems connected to the review of the Gothenburg Protocol and questions asked from the policy groups (to be determined later)	2022	IM Chairs and Programme Centre
Scientific paper on modelling and assessment of biodiversity and ecosystem impacts, in cooperation with e.g. CDM	2023	IM Chairs and Programme Centre
Continued co-operation with the eLTER research infrastructure to develop European ecosystem research/monitoring	2022	IM Chairs and Programme Centre

Other scientific and network activities are:

- 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).
- Develop concepts for multi pollutant – multi effect relationships (NO_x, O₃, acidity, heavy metals, POPs, etc).
- Cooperation with external organisations (Long Term Ecological Research Network LTER, LifeWatch, GEO BON).

Task force approved the suggested work plan and future work priorities.

15. Revision of ICP IM manual

Mr. Ulf Grandin suggested to Task Force minor revision of chapter 7.2 (Epiphytic lichens). In addition to ICP IM sampling methodologies for epiphytic lichens on three trunks, the IM program allows also submission of data collected according to the ICP Forests manual (additional method E). He also suggested change of recommendation from use of diapositive film for photographing to digital photos, and correction a few typos. Task Force approved the suggested revision. As suggested in the circulated manual draft, comments on the draft should be emailed to Ulf Grandin.

16. Data submission and migration of the database

Ms. Sirpa Kleemola, manager of the IM database until the end of 2020, described the status of data reporting to the Programme Centre. The following fifteen countries have continued data submission to the ICP IM data base during the period 2015–2019: Austria, Belarus, the Czech Republic, Estonia, Finland, Germany, Ireland, Italy, Lithuania, Norway, Poland, the Russian Federation, Spain, Sweden, and Switzerland. Some data is missing due to Covid problems, probably because some laboratories/institutes were closed.

IM database was transferred from SYKE to SLU at the end of January 2021. Data received after this date are not yet stored to SYKE. IM data for 2020 will be submitted to Pernilla Rönnback (SLU). Due to the migration of the IM database and new database managers, NFPs are asked to report the 2020 data as early as possible. The TF meeting was asked to submit the 2020 data not later than 1st

of November 2021.

The new database managers from SLU, Pernilla Rönback (data delivery) and Hampus Markensten (database specialist), presented themselves.

Ms. Sirpa Kleemola will retire on 1st June 2021. On behalf of the Task Force, Mr. Salar Valinia expressed warm compliments to Ms. Kleemola for her excellent work and valuable contribution for the ICP IM program.

17. Next Task Force meeting 2022

The Task Force agreed unanimously that 2022 meeting should again be a Joint meeting with ICP Waters in Latvia, which has kindly offered to host the 2022 meeting.

Austria expressed its readiness to investigate possibilities to host the 2023 ICP IM Task Force meeting.

18. Other business

No other business.

19. End of the meeting

The Co-Chair Salar Valinia ended the 29th ICP IM Task Force meeting.



UNECE CONVENTION ON LONG-RANGE TRANSBOUNDARY AIR POLLUTION

International Cooperative Programmes on Integrated Monitoring of Air Pollution Effects on Ecosystems

29th ICP IM Task Force Meeting, 13-14 April 2021

On line

Tuesday April 13 – Scientific presentations and messages from other ICPs

The allocated time slots should include time for questions

Time (CEST)	Topic	Presenter
13:00-13:10	Welcoming and opening of the 29 th ICP IM Task Force meeting	Ulf Grandin & Salar Valinia
13:10-13:30	Nitrogen deposition causes distinct eutrophication in bryophyte communities in central and Northern European forests	James Weldon
13:30-13:50	Nitrogen retention within forested catchments	Daniel Houle
13:50-14:10	Surface water trends and mass balances of heavy metals	Karin Eklöf
14:10-14:20	Break, 10 minutes	
14:20-14:50	1. Report from ICP Waters. 2. Highlights of changes in water chemistry from 1000-lake survey	Heleen de Wit
14:50-15:10	Assessing critical load exceedances and ecosystem impacts at ICP IM sites	Martin Forsius
15:10-15:30	TBA	
15:30-15:50	TBA	
15:50-16:00	Break, 10 minutes	
16:00-16:20	TBA	
16:20-16:40	TBA	
16:50	Adjourn	Ulf Grandin

Wednesday April 14 – Task Force meeting

13:00-14:30: Break out group discussions about “IM Light”

1. Plenary introduction (Salar Valinia)
2. Break out groups (with rapporteurs from each group)
 - a. Name of the extended IM program
 - b. Variable selection
 - c. How to define “plot”/ spatial scales?
 - d. How to recruit new sites and countries
3. Plenary reporting back (chair Salar Valinia)

Suggested agenda for the formal 29th ICP IM Task Force meeting, with annotations

e) Opening of the TF meeting (IM chairs)

f) Approval of the agenda (IM chairs)

g) Approval of the minutes from the 28th ICP IM Task Force meeting, 2020 (IM chairs)

The minutes were distributed by mail to all participants, and are available on the ICP IM web site at the programme centre: <https://www.syke.fi/download/noname/%7B846F6EEA-C4B3-420B-A141-1EC6DD181D9D%7D/158774>

h) Reports from

a) the CLRTAP secretariat (Krzysztof Olendrzynski)

b) Other items (IM chairs)

- The current ICP IM network - 48 active sites distributed over 15 countries.
- TBA

c) Long Term Strategy 2020-2030 – headlines (IM chairs)

d) eLTER development of eLTER RI + MoU with WGE (Ulf Grandin)

LTER Europe is currently building up a formalised European Research Infrastructure (eLTER RI) for long term ecosystem research and monitoring. The RI will consist of ca. 200 highly equipped field stations that will be recruited from the current European LTER network comprising about 460 stations. A majority of the IM sites are also LTER sites and may be selected for the eLTER RI.

i) Future location of the ICP IM Programme Centre (Martin Forsius)

The Finnish Environment Institute (SYKE) has announced that they may not be able to host the ICP IM Programme Centre in the future. The Swedish University of Agricultural Sciences (SLU) have indicated interest in taking over this role. However, all countries in ICP IM are invited to declare interest in taking over this important task. Potentially interested parties should contact the head of the Programme Centre (Martin Forsius) before May 15, 2021. The matter will be discussed at the TF meeting, but changes in the programme structure will be decided by the Working Group on Effects and the Executive Body.

j) Activities during 2020/21 – Information (IM chairs)

All activities are listed in the 30th Annual Report from IM, soon available from the ICP IM web site: <https://www.syke.fi/nature/icpim>. Below a summary.

- ICP IM participated or was represented at 12 international meetings directly related to the IM core activities.

- The Programme Centre received the 2019 data from most IM sites, data are now stored in the ICP IM database; see also agenda item 10.
- The listed scientific outputs in the WGE 2020-2021 work plan are about to be completed (see table below).
- The chairs and Programme centre have together with a group of experts from the IM community developed the “IM light” concept.
- The chairs and Programme centre have contributed to a WGE report on the revision of the Gothenburg protocol, see also agenda item 7.

From the WGE 2020-2021 work plan:

<i>Work plan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Outcome</i>
1.1.1.15	Scientific paper on impacts of internal catchment-related nitrogen parameters to total inorganic nutrient nitrogen (TIN) leaching.	Scientific paper (2020)	MS submission planned after summer
1.1.1.16	Report on Hg and HM trends in concentrations and fluxes across ICP Integrated Monitoring sites in Europe.	Report (2021)	Report in 29 th IM Annual Report. Planned scientific article
1.1.1.17	Scientific paper on effects of nitrogen enrichment on forest vegetation. A co-operation between ICP Integrated Monitoring and ICP Forests.	Scientific paper (2020)	Submitted manuscript

k) Revision of the Gothenburg Protocol (Martin Forsius)

A review process of the Gothenburg Protocol has been started under the Convention, and a Policy Review Group (PRG) has prepared key questions to be answered by the different technical bodies of the Convention. Key questions of relevance for ICP IM are:

- 2.2.b. What is the annual change (or change every 5 years) in exceedance of critical loads for acidification and eutrophication between 1990 and 2018/2019 in terms of percentage ecosystems with exceedances and accumulated excess, based on current critical loads. What are projected changes up to 2030 and beyond?
- 2.2.c. What is the annual change (or change every 5 years) in water, soil and ecosystem quality indicators between 1990 and 2018/2019? What are projected changes up to 2030 and beyond?
- 2.7. Is the monitoring and modelling system of the Convention sufficient to observe, assess and project air pollution and its effects related to the Gothenburg Protocol in the ECE region? If no, what are the main challenges and what is needed to meet them?
- 2.8. What are the expected impacts of new scientific findings on environmental and health effects assessments, for example on:
 - critical loads,
 - critical levels of ozone, particulate matter, nitrogen dioxide and ammonia
 - dynamic modelling of ecosystem recovery,
 - inclusion of marine ecosystems protection,
 - interactions between air pollution, climate change, nitrogen fluxes and other stress factors for biodiversity (e.g. land use changes)

The Programme Centre has prepared first short answers to these questions based on published

information and sent them to the WGE Chair. Work will continue during spring/summer 2021.

l) Work plan and future work priorities (IM chairs)

a) Suggested items for the 2022-2023 WGE Work Plan

The following has been suggested as ICP IM work plan items for the coming WGE work plan. Additions and a discussion are welcome.

Suggested IM activities in the WGE 2022-23 Work Plan	Time frame	Responsible
Operationalise and advertise “IM light” as an attractive monitoring protocol, aiming at adding more ecosystem types in the IM monitoring	2022	IM Chairs and Programme Centre
Continued work on the trends in ecosystems connected to the review of the Gothenburg Protocol and questions asked from the policy groups (to be determined in later)	2022	IM Chairs and Programme Centre
Scientific paper on modelling and assessment of biodiversity and ecosystem impacts, in cooperation with e.g. CDM	2023	IM Chairs and Programme Centre
Other item(s) that the TF meeting suggests, will be added here.		

b) Other scientific and networking activities

- 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).
- Develop concepts for multi pollutant – multi effect relationships (NO_x, O₃, acidity, heavy metals, POPs, etc).
- Cooperation with external organisations (Long Term Ecological Research Network LTER, LifeWatch, GEO BON).

m) Revision of manual

a) Epiphytic lichens, EP (Ulf Grandin)

The current ICP IM manual allows four different sampling methodologies for epiphytic lichens on three trunks ([IM manual chapter 7.20](#)). Some IM sites are using the ICP Forests methodology, which is different from any of the IM methodologies. We therefore suggest that the TF meeting approves a minor update of the IM EP manual to also include the ICP Forests methodology, as suggested in the attached draft revision.

We also suggest to remove the recommendation to use diapositive film for photographing and instead recommend digital photography, and corrected a few typos.

n) Data submission and migration of the database (Sirpa Kleemola, Pernilla Rönnback and Hampus Markensten)

During 2020 and 2021, the ICP IM database has moved from the Finnish Environment Institute (SYKE) to the Swedish University of Agricultural Sciences (SLU). Submission of data should

from now on be to Pernilla Rönback Pernilla.ronnback@slu.se, and not to Sirpa!

Due to the migration of the IM database and new database managers, NFPs are asked to report the 2020 data as early as possible. The TF meeting is asked to decide on a voluntary deadline for reporting of 2020 data to 1st of November 2021, of data that can be ready by then.

The Programme Centre will present the current status of the database. A detailed description is given in the 30th Annual Report 2021. Most of the National Focal Points have submitted the results from 2019 to the Programme Centre.

The new database managers, Pernilla Rönback and Hampus Markensten, will present themselves.

o) Next Task Force meeting, 2022 (IM chairs)

Latvia's kind offer to host a shared TF meeting for IM and Waters from 2020 is still open, and they welcome us in 2022.

Do we want to have a joint TF meeting with ICP Waters in 2022, and accept the invitation from Latvia?

We welcome countries to investigate possibilities for hosting the 2023 IM Task Force meeting.

p) Other business (IM chairs)

q) End of meeting (IM chairs)

ANNEX II

List of participants

Name	Organisation	Country	Participation_2021	I_will_participate_as
Krzysztof Olendrzynski	UNECE	Switzerland	April 14	Other
Kai Schwärzel	ICP Forests	Germany	April 13, April 14	Other
Hanna Kasprowicz	Chief Inspectorate of Environmental Protection	Poland	April 13	Other
Barbara Albinia	Chief Inspectorate of Environmental Protection	Poland	April 13	Other
Isaura Rabago	CIEMAT	SPAIN	April 13, April 14	Other
Kari Austnes	NIVA	Norway	April 13, April 14	Other
Filip Moldan	IVL Swedish Environmental Research Institute	Sweden	April 13, April 14	Other
Krzysztof Skotak	Institute of Environmental Protection - National Research Institute	Poland	April 13, April 14	Other
Daniel Houle	Environnement Canada	Canada	April 13, April 14	Other
Aleksandra Ševčuka	Latvian Environment, Geology and Meteorology Center	Latvia	April 13, April 14	Other
Algirdas Augustaitis	Agricultural Academy Vytautas Magnus University	Lithuania	April 13, April 14	National Focal Point
Jussi Vuorenmaa	Finnish Environment Institute	Finland	April 13, April 14	National Focal Point
Thomas Scheuschner	German Federal Environment Agency	Germany	April 13, April 14	National Focal Point
Adéla Holubová	Czech Hydrometeorological Institute	Czech Republic	April 13, April 14	National Focal Point
Heleen de Wit	NIVA - ICP Waters	Norway	April 13, April 14	Other
Reet Talkop	Ministry of the Environment	Eesti	April 13, April 14	National Focal Point
Domenico	Carabinieri Command - Studies and Projects Office	Italy	April 13, April 14	Other
Karin Eklöf	SLU	Sweden	April 13, April 14	Other
Dominique Pritula	Environment and Climate Change Canada	Canada	April 13, April 14	Other
Pavel Kram	Czech Geological Survey	Czechia	April 13, April 14	Other
Gisela Pröll	Environment Agency Austria	Austria	April 13, April 14	Other
Sara Jutterström	CDM	Sweden	April 13, April 14	Other
Maria Holmberg	Finnish Environment Institute SYKE	Finland	April 13, April 14	Other
Evita Maderniece	Latvian Environment, Geology and Meteorology Centre	Latvia	April 13, April 14	National Focal Point
Johannes Kobler	Umweltbundesamt GmbH	Austria	April 13, April 14	Other
Hubert Schulte-Bisping	University Göttingen	Germany	April 13, April 14	National Focal Point
Pernilla Rönnback	SLU, Swedish University of Agricultural Sciences	Sweden	April 13, April 14	National Focal Point
Hampus Markensten	Swedish University of Agricultural Sciences	Sweden	April 13, April 14	Other
Anna Koukhtha	Institute of Global Climate and Ecology	Russian Federation	April 13, April 14	National Focal Point
James Kurén Weldon	SLU	Sweden	April 13, April 14	Other
Salar Valinia	Co-chair	Sverige	April 13, April 14	Other
Aleksandra Kanisceva	Latvian Environment, Geology and Meteorology Centre	Latvia	April 13, April 14	National Focal Point
David Elustondo	Univesity of Navarra	Spain	April 13, April 14	National Focal Point
giancarlo papitto	Arma dei Carabinieri	Italy	April 13, April 14	National Focal Point
Kairi Lõhmus	Estonian Environmental Research Centre	Estonia	April 13, April 14	Other
Luca Colombo	SUPSI - DACD	Switzerland	April 13, April 14	National Focal Point
Martin Stecher	Regional Forestry Department South Tyrol	Italy	April 13	Other
Sirpa Kleemola	Finnish Environment Institute	Finland	April 13, April 14	Other
Martin Forsius	Finnish Environment Institute SYKE	Finland	April 13, April 14	Other
Ulf Grandin	SLU	Sweden	April 13, April 14	Other