

**34th Task Force Meeting of the
International Co-operative Programme on
Assessment and Monitoring of Air Pollution Effects on Forests
(ICP Forests)**

Riga, Latvia, 24–25 May 2018

Draft Minutes, v2.0

(The minutes will be finally adopted at the next TFM in May 2019.)

Opening

1 The 34th Task Force meeting was hosted by the Ministry of Agriculture of the Republic of Latvia and the Latvian State Forest Research Institute (SILAVA). It was attended by 55 delegates representing 26 countries (see Annex I) and a guest from the Network Center for the Acid Deposition Monitoring Network in East Asia (EANET).

2 Mr Marco Ferretti, Chairman of ICP Forests, opened the meeting and welcomed all participants. He specifically thanked Mr Arvīds Ozols, Director of the Forestry Department at the Latvian Ministry of Agriculture, for hosting the meeting, the Latvian State Forest Research Institute SILAVA, especially Mr Uldis Zvirbulis and Ms Zane Lībiete, and the staff of the Programme Co-ordinating Centre (PCC) for the organisation. He specifically welcomed Mr Hiroyuki Sase from the Asia Center for Air Pollution Research in Niigata, Japan, representing the Network Center for EANET. Mr Ozols welcomed all participants and provided an overview on the situation of forests and forest management in Latvia.

Item 1 Adoption of the agenda

3 The Task Force approved the minutes of the 33rd Task Force Meeting in Bucharest, Romania. The Task Force adopted the agenda after adding a presentation by Mr Manuel Nicolas (NFC France), on *Evolution of HIS (habitat suitability index) response to a combination of climatic and nitrogen deposition scenarios at French ICP Forests sites – ForSAFE-EcoPlant* to the agenda under Item 7.

Item 2 Report of PCC

4 Mr Walter Seidling (Head of PCC), reported on the **activities and progress of the PCC** since the last Task Force meeting. He briefly described the contents of the ICP Forests 2017 Executive and the 2017 Technical Report. The revision of the ICP Forests Manual has been completed by the end of 2017. He listed all past and upcoming ICP Forests events and scientific publications related to current workplan items under the Convention and reported on the PCC's contributions to the guidance document of the new (2016) EU National Emission Ceilings Directive (NECD) and to the revision of a technical specification document.

5 After Mr Seidling showed an overview of the **personnel resources at the PCC**, the Task Force took note of the situation at PCC and agreed on the following statement to be directed at the Lead Country of the ICP Forests: The Task Force of ICP Forests acknowledges the importance to have a continuous coverage of the position of Head of PCC to ICP Forests. The Task Force is concerned that a

potentially critical situation may occur at PCC in terms of personnel and the coverage of key positions for the ICP Forests management in view of the future retirement of Mr Seidling. In view of these factors the Task Force asks the Lead Country to undertake all the necessary steps toward the Thünen Institute (formal employer for the concerned position) to ensure the continuous and seamless cover (formally and functionally) of this position.

6 The Task Force also agreed to support other activities in that direction and discussed the possibility of sending a direct letter to the German ministry and/or the president of the Thünen Institute to acknowledge the personnel resource situation and urge for a solution.

Item 3 Reports/brochures issued by PCC

7 Ms Alexa Michel (PCC) presented the current draft of the **2018 Technical Report** and the first two issues of the new **ICP Forests Brief** series¹. Brief No 1 provides a general overview on the programme while Brief No 2 reports on the status and trends in inorganic nitrogen deposition to forests in Europe. The third issue on ozone will be published soon after the meeting.

8 After concerns about the brief series' review process from Ms Sabine Augustin, ministerial representative from Switzerland, and further discussion, the Task Force agreed that the PCC sends a final draft of the text of the third and all future briefs to the NFCs and ministries for perusal with two weeks' notice for comments. The editors together with the authors will decide on the final version of the brief after careful consideration of all comments made.

9 Mr Seidling presented the ideas of the upcoming **Executive Report** with the main topics on long-term development of environmental drivers, tree/forest/system response, and modelling approaches. Mr Seidling will approach authors from the Scientific Conference aiming for 5-6 contributions to be included in the next report.

Item 4 Issues concerning WGE/CLRTAP

10 Mr Seidling presented the **report on progress in activities in 2017 and further development of effects-oriented activities**² by the PCC to the Executive Body for the Convention, including the highlights of scientific findings/policy relevant issues of ICP Forests in the last reporting period. The next Progress Report will be prepared by the PCC during the summer to be approved at the next WGE meeting in September 2018.

11 Mr Seidling presented the **2017 joint progress report on policy-relevant scientific findings**³ which includes extracts from individual progress reports of all ICPs under the WGE, and the **2018-2019 workplan for the implementation of the Convention**⁴ which is set up every two years and defines the objectives and deliverables expected of the different ICPs.

12 The **4th Joint Session of the EMEP Steering Body and Working Group on Effects**⁵ in Geneva, 10-14 Sept 2018, will hold three thematic sessions on (i) ammonia and particles, (ii) 'scaling': local scale and downscaling issues, and (iii) mercury (+HMs). Mr Seidling asked the Task Force to approach him or Mr Ferretti with ideas/results/considerations to be presented at those sessions.

¹ <http://icp-forests.net/page/icp-forests-briefs>

² http://www.unece.org/fileadmin/DAM/env/documents/2017/AIR/EMEP/E_ECE_EB.AIR_GE.1_2017_11%E2%80%93ECE_EB.AIR_WG.1_2017_4.pdf

³ http://www.unece.org/fileadmin/DAM/env/documents/2017/AIR/EMEP/E_ECE_EB.AIR_GE.1_2017_3%E2%80%93ECE_EB.AIR_WG.1_2017_3.pdf

⁴ http://www.unece.org/fileadmin/DAM/env/documents/2017/AIR/EMEP/ODS-E_ECE_EB.AIR_GE.1_2017_20%E2%80%93ECE_EB.AIR_WG.1_2017_13.pdf

⁵ <http://www.unece.org/index.php?id=45539>

13 A new WGE website was initiated by the PCC and will be further developed at the Aarhus University. An information leaflet on the WGE is in preparation.

14 Mr Seidling presented the draft **mandate for the PCC** which includes the responsibilities of the PCC under the Convention. A revision will be discussed at the next EMEP/WGE meeting. He also briefly presented the principal aims of the Air Convention as given in the **revised long-term strategy of the effects-oriented activities**⁶

15 Mr Seidling informed about the **ICP Forests budget**, showing the contributions to the PCC over the last years through the UNOG Trustfunds from earmarked (i.e. bound to ICP Forests) and non-earmarked contributions (i.e. not bound to ICP Forests) from the participating countries. At their last meeting the WGE discussed a more stable financing for monitoring work in the future⁷. Mr Ferretti reminded the Task Force of the importance of financing and supporting the programme and kindly asked that the member states check the status of their financial contribution.

16 Mr Ferretti reported on the 6th **“Saltsjöbaden” Workshop Clean Air for a Sustainable Future – Goals and Challenges**⁸ in Gothenburg, Sweden, 19-21 March 2018, in which 180 scientists from 35 countries and 5 continents in addition to representatives from 20 organisations and agencies participated, discussing future directions and providing recommendations with respect to international collaboration on air pollution.

Item 5 Reports of sister ICPs

17 Mr Lars Lundin, former Chairman of **ICP Integrated Monitoring** (ICP IM), gave a brief introduction to ICP IM. Currently, 17 countries with 41 sites are active with most IM sites also being part of the LTER network. He presented their draft work plan 2018-19 and reported on their latest meetings, activities, reports, co-operations, scientific findings and papers, and their scientific strategy. He highlighted their work on heavy metals and reported on the potential inclusion of a new supersite (Svartberget Catchment) incl. an ICOS tower in the northern part of Sweden. Other additional new sites are still welcome. The next ICP IM Task Force Meeting will be held in Helsinki in June 2019 probably again together with ICP Waters.

18 Mr Ferretti reported on the planned **joint expert workshop between ICP Forests and ICP Vegetation** titled *Assessing and estimating ozone impacts on forests vegetation – opportunities for improved co-operation*. It will be a one-day workshop possibly in March or April 2019. Five to six experts from both ICPs will be identified to join. Mr Schaub and Ms Gottardini (chair and co-chair of the EP on Ambient Air Quality) are to be contacted for becoming part of the ICP Forests delegation.

Item 6 Minor manual changes between updates

Mr Till Kirchner (PCC) proposed a new procedure for minor manual changes between major revisions every five years. Minor changes may include the clarification of wording, correction of obvious mistakes, and the introduction of missing codes for unconsidered cases. During data submission all changes will be highlighted in a pop-up window for information. The Task Force agreed on the following procedure:

⁶https://www.unece.org/fileadmin/DAM/env/documents/2013/air/wge/Informal_document_no_18_Revised_Long-term_Strategy_of_the_effects-oriented_activities_clean_text.pdf

⁷<http://www.unece.org/index.php?id=45541>

⁸<http://saltsjobaden6.ivl.se/download/18.2aa2697816097278807f6ff/1526304118370/Main%20recommendations%20Saltsj%C3%B6baden%20VI%2010%20May.pdf>
<http://saltsjobaden6.ivl.se/saltsjobadenvirecommendations.4.2aa2697816097278807ef12.html>

- The Expert Panels together with the PCC decide whether the inclusion of minor changes is needed.
- All changes will be listed at the end of the respective manual.
- The PCC informs the community about each change.
- If in question whether a change is minor or major, the PCC will consult with the Task Force.

19 The Task Force agreed that the addition of optional parameters can be considered a minor change, e.g. new parameters of the elements As, Cr, Co, Ni and Hg (foliage and litterfall). It was clarified that data from optional parameters can be added also for former years.

Item 7 Activities of the Expert Panels and Committees of ICP Forests

20 Mr Arne Verstraeten, Chair of the **Expert Panel on Deposition**, listed all 22 articles in progress, while specifically introducing new projects, 9 published and 3 accepted publications. Deposition data in 2016 was submitted from 241 plots in 21 countries. He invited the participants to still submit data if they had not so far. Other activities included e.g. the participation in the ICP Forests reporting, in conferences, ongoing evaluations, and the preparation of a new version of the aggregated deposition dataset including more recent data (ADPD.LII.2015.0) by Mr Peter Waldner (Co-chair EP Deposition). Future work will focus on e.g. encouraging NFCs to submit missing data and resubmit old data especially before 2007, adding DOC to the aggregated deposition database, and proposing an update for the deposition manual with regard to canopy exchange models.

21 Mr Marcus Schaub, Chair of the **Expert Panel on Ambient Air Quality**, presented their 2017 activities, including the projects PRO₃FILE and *VibEuroNet*, networking activities, publications and products. He showed results from the 13th Intercalibration course 2017 in Trento and informed about the upcoming 14th Intercalibration course in Poreč, Croatia, 10-13 September 2018 and about the EP meeting 1-5 October 2018 in Zvolen, Slovakia. Together with Mr Raspe and Mr Kirchner, he will launch a call for hourly meteo data from 2000 onwards to be submitted to the ICP Forests DB (see Item 22). Hourly meteo data are crucial not only for the internal PRO₃FILE project but for all physiological models.

22 Mr Stephan Raspe, Chair of the **Expert Panel on Meteorology, Phenology and LAI**, showed the development of data submission over the last 26 years. In 2016, daily meteorological data was submitted from 186 plots in 18 countries. The temperature deviation from long-term average was positive in most countries for the whole year and also for the vegetation period. He made an urgent call for submission of hourly meteo data and explained the submission procedure. He will circulate more information soon. No data was submitted on soil water content in 2017. Phenology data was submitted from 149 plots in 12 countries, LAI data from 68 plots in 4 countries. A tendency towards an earlier start of the vegetation period was shown by a negative trend of beginning of leaf unfolding of beech and needle unfolding of spruce trees in Germany during the measurement period from 1998 to 2016. He invited the participants to take part in the joint expert panel meeting in Zvolen, Slovakia, 1-5 October 2018.

23 Mr Stefan Fleck, Co-chair of the **Expert Panel on Meteorology, Phenology and LAI**, reported on the joint workshop between ICP Forests and eLTER last year with presentations and practical trainings explicitly related to the LAI manual and with participants from four continents. He showed results from analyses on the relationship between LAI and stand volume and age. LAI decreased with age species-specifically, but increased with stand volume to a certain extent. He emphasized the relevance of LAI data submission for the calculation of stomatal ozone uptake.

24 Mr Nenad Potočić, Chair of the **Expert Panel on Crown Condition and Damage Causes**, informed about the changes in the reporting for this year's Technical Report. Mortality was included and there was a further integration of defoliation and damage data. In 2017, 24 countries submitted

data from 4682 plots. Mr Potočić reported on the Photo ICC in 2017 hosted by Germany and the International Cross-comparison Course 2017 in Buchlov, Czech Republic. No ICC will be held this year. Turkey representatives were contacted for discussing the possibility of a Mediterranean/Central ICC organisation in 2019. Twenty NFCs responded to a questionnaire on the details of their Level I crown condition monitoring practices. Results will be presented at the next EP meeting in Brussels in spring 2019. The EP chairs met with the PCC in Eberswalde and discussed the analyses for the TR crown condition reporting. The EP's future work will include the preparation of next year's EP meeting. Work is still required on the database check routines and on the Annex 3 coding for improving the damage reporting system.

25 Mr Tom Levanič, Chair of **Expert Panel on Forest Growth**, announced Ms Tanja Sanders from the Thünen Institute of Forest Ecosystems in Germany as the new EP co-chair after approval by the EP. Twelve countries responded to a questionnaire and seven sent functions for homogenising tree volume calculations. Results will be presented in this year's Technical Report. With the new Level II growth inventory coming up in 2019/20, Mr Levanič wishes that more experts will participate in this year's EP Growth meeting than in 2016 when only 9 countries participated. The deadline for registration and payment is 30 June 2018. With regard to growth data submission and availability, the database accepts all kinds of dendrometer data and even chronologies. Growth data is not aggregated yet and volumes have not been calculated, thus only raw data is available for download.

26 Mr Roberto Canullo, Chair of the **Expert Panel on Biodiversity and Ground Vegetation**, emphasized that the position of EP co-chair is still vacant. He reported on the status of the following active projects: DWpool: papers in preparation; USPEX: Upscaling and spatially explicit estimation of biophysical variables; FUTPA : Plant functional trait pattern in key EU forest types possibly merging with (a) FORGUILD: Plant Functional Groups and species diversity patterns and delta-Drivers, and (b) BIOPART: Driving factors of beta-diversity in European forest; PHYLOPAT: Phylogenetic pattern at biogeographical scale (on stand-by), NICHE model calibration (partially active). He also reported on recent activities in the countries and their participation in the H2020 infrastructure call (INFRAIA) with the TREEFORCE proposal. Future activities include the EP's participation in the joint EP meeting in Zvolen and Level I biodiversity database metadata updates.

27 Mr Pasi Rautio, Chair of the **Expert Panel on Foliar and Litterfall**, reported of the EP's decision at the 2017 EP meeting to include new optional parameters (As, Cr, Co, Ni and Hg). He referred anyone interested in learning the Hg concentration in their foliage samples to send their samples (0.5 g) at no cost to Lena Wohlgemuth (University of Basel) who works on a comprehensive assessment of the Hg pools in foliage across Europe. Mr Rautio was to send a reminder after the meeting. In 2016, litterfall data was submitted from 115 plots in 12 countries with some still missing. Five studies were published or submitted using foliar/litterfall data, three manuscripts are under preparation. Due to lack of funding, there are currently no plans for another Level I foliar survey following the one carried out in 1995.

28 Mr Bruno De Vos, Chair of the **Expert Panel on Soil and Soil Solution**, emphasised the need to test three new methods before their inclusion in the solid soil manual updates planned for 2021. No new methods are planned for the soil solution manual. Both the results of the ongoing 9th solid soil ringtest 2018 and the 9th soil solution and deposition ringtest, which will start at the end of this year, will be discussed at the next EP meeting in Brussels in March 2019. The harmonisation of the Forest Soil Condition Databases is still ongoing and combining the Level I datasets should be finished by the end of the year. They aim for a 3rd version of the aggregated Level II soil condition database including data before 2003. In 2016, soil solution data was submitted from 18 countries. He presented the status of reporting at the EU level. The NECD references to the ICP Forests manual so that data provided under the NECD can be compared with ICP Forests data. The next SoEFs reporting is scheduled for 2020 (every 5 years). He presented two publications using soil and soil solution data. Mr De Vos will provide an overview of forest soil monitoring in Europe at the North America Forest

Soils Conference – International Symposium on Forest Soils in Québec in June as a keynote speaker. He invited the ICP Forests community to the 21th Forest Soil Expert Panel Meeting in Brussels in March 2019 which will be held together with the EPs on Foliage and Litterfall, Deposition, and the Working Group on QA/QC in Laboratories.

29 Mr Alfred Fürst, Chair of the **Working Group on QA/QC in Laboratories**, reported on the 6th Meeting of the Heads of the Laboratories with 33 participants from 17 countries in Pallanza, Italy, the previous autumn. The registration for the 21th Needle/Leaf Ringtest 2018/2019 is open until 9 July 2018. Over 30 labs have already registered. New parameters, i.e. As, Co, Cr, Hg, Ni, have been included but problems may arise from low concentrations in the samples. Data quality over the years has improved substantially, e.g. from over 50% “wrong” lead results in 1995 to less than 10% in 2018. The ringtest results will be discussed at the next EP meeting in 2019 together with the results of the 9th Soil Ringtest 2018/2019 with 29 participating labs. Small changes were made to the method code list. Registration to the 9th Deposition and Soil Solution Ringtest will start in October. The parameters Cd, Cr, Co, Cu, Pb, Ni, Zn will be included in the ringtest program. At their last meeting in Pallanza, the heads of the labs proposed to the EP Deposition to skip Hg, B and Mo from the parameter list because of methodical problems and because these parameters are not analysed in practice for the deposition survey. Mr Fürst updated information on all three ringtests on the website. He reported on the possibility to take part in the FAO – Global Soil Laboratory Network as single soil laboratory or regional laboratory network and on the project on the assessment of the Mercury pool in foliage across Europe for which samples are still needed and will be analysed for free (contact: Lena Wohlgemuth, University of Basel, lena.wohlgemuth@unibas.ch).

30 Ms Karin Hansen, Chair of the **Scientific Committee**, presented the committee’s main activities during the last year. The Committee prepared an internal To-do list to advance and promote science within ICP Forests, compiled historical publication records to use as a basis for an effective future publication strategy, and organised the 7th Scientific Conference. The number of ICP Forests publications was copied from the list on the ICP Forests website. Especially publications on deposition and soil but even other areas within ICP Forests have steadily increased over the years. However, some publications are obviously still missing in the publication list on the ICP Forests website. The Chair encouraged all NFCs to actively report all peer review publications to ICP Forests in order to update the publications list. The number of participants in the scientific conferences has risen with 91 participants (29 oral presentations and 22 posters) at the 7th Scientific Conference. An evaluation of the conference was performed with menti.com and it showed the participants’ ratings on the conference. This evaluation can be found on the ICP Forests website⁹.

31 Because of a new position, Ms Hansen resigned as Chair of the Scientific Committee. Hereafter, the Task Force acknowledged the announcement of Mr Schaub as new chair of the Scientific Committee. Mr Ferretti thanked Ms Hansen for her important and invaluable work in the programme since 1994 and expressed his gratitude on behalf of the community. The Task Force gave Ms Hansen a long applause for her outstanding work and commitment over the years.

32 Mr Nicolas (NFC France) gave a presentation on the *Evolution of HSI (Habitat Suitability Index) response to a combination of climatic and nitrogen deposition scenarios at French ICP Forests sites – ForSAFE-EcoPlant* which had been prepared by Ms Marine Pasturel and Ms Anne Probst (EcoLab research unit, French NFC for ICP Modelling and Mapping). French ICP Forests Level II plots have been used for years to improve the estimation of critical loads with biogeochemical modelling approaches. Recent developments have been made to simulate the effects of combined climate change and N deposition scenarios on nutrient fluxes and ground vegetation diversity. On one hand, the ForSAFE process-based biogeochemical model was first run on 3 Level II plots for calibration with the measured soil solution chemistry, then run for validation on 7 more Level II plots. On the other

⁹ <http://icp-forests.net/page/scientific-committee>

hand, the French EcoPlant database was successfully used to identify key variables (regarding temperature, water supply, soil chemistry, and light) affecting the occurrence of plant species and to model their probability of presence. Then both models were coupled to predict until 2100 the suitability of the habitat for the plant species currently inventoried on the plots. Some preliminary results were shown for 10 sites. In the future, the aim is to extrapolate to all 102 French ICP Forests sites and to national scale.

Item 8 Internal data analyses and studies by external institutions

33 Ms Anne Prescher (PCC) provided an **overview on ongoing studies with ICP Forests data or from ICP Forests plots**. Internal data applicants requested mainly data on meteo, growth and deposition and external data applicants data on meteo, growth and crown condition. She provided an overview on the 16 new projects that were initiated in 2017/18, 20 finished projects, and the newest ICP Forests publications, of which many are, however, restricted to national analyses. Ms Prescher raised awareness to the problem that ICP Forests is often not mentioned in neither the title, keywords, abstracts, methods nor in the acknowledgements.

34 During the discussion, Mr Kirchner explained that because of poor response, the PCC stopped distributing a request for information on the status of projects using ICP Forests data. Mr Kirchner recalled that according to the current data policy, information on “any publication based on data from the ICP Forests Database has to be provided to the PCC for publication on the ICP Forests website”. Mr Kirchner amended that each publication should be based on a valid data request. At the moment most publications cannot be linked to a request, which is a great lack of information.

Item 9 Future and recent EU initiatives and calls

35 Mr Seidling reported on the status of the revision of the **National Emission Ceilings Directive (NECD)**. By 1 July 2018 EU member countries are asked to provide coordinates of monitoring sites and associated indicator parameters to the Commission and EEA. By 1 July 2019 monitoring data should be reported and then again every 4 years. There will be a review process after the evaluation of the 2019 campaign. Mr Seidling asked the participants to cooperate with their national agency responsible for the NECD reporting and inform them about already available ICP Forests plots, methods and parameters. Currently, Mr Ferretti represents ICP Forests in the technical sub-group of the NECD Expert Group together with experts from the other concerned ICPs and from national experts. Mr Seidling presented benefits and threats for ICP Forests following the revision of NECD, e.g., avoiding the closure of sites which may potentially result in a generally stabilizing effect on the ICP Forests network, and more intensive collaboration between ICPs. However, countries may decide to reduce their monitoring activities to only collect NECD parameters and/or NECD sites. Also, different datasets from the same monitoring structure could emerge in the long-run as countries will deliver data not only to ICP Forests but additionally to the EEA. After discussion, the PCC agreed to compile information from all countries on which of their Level II sites have been selected as NECD sites and who from the ICP Forests community acts as national NECD representative.

36 For allowing a **participation of ICP Forests and its community in project proposals, consortia, or initiatives**, Mr Ferretti suggested a two-step process:

- Step 1: The Task Force agrees to give a mandate to PCC in co-operation with the Chairman to negotiate participation into, or even initiate, project proposals and initiatives on the part of the ICP Forests community.
- Step 2: Whenever the initiative/negotiation process will be likely to end-up into a formal proposal, PCC (Thünen Institute) will (i) start bilateral contact with individual possible ICP Forests partners and/or (ii) issue bilateral agreement/contracts with individual possible ICP

Forests partners. This procedure will permit to manage possible problems that may arise if many partners needs to be involved (“FutMon syndrome”).

Other institutes can also take a project lead, it must not necessarily be the Thünen Institute. The Task Force will reflect on Mr Ferretti’s suggestion and agreed on 10 September 2018 as deadline for feedback.

37 Mr Ferretti reminded the expert panel chairs to check their **mandates** before the next meeting of the Programme Co-ordinating Group this November to discuss whether a revision and a new approval by the Task Force is needed.

Item 10 Co-operations with other international organizations

38 Mr Hiroyuki Sase from the Asia Center for Air Pollution Research (ACAP) in Niigata City, Japan, which is designated as the Network Center for **EANET** (Acid Deposition Monitoring Network in East Asia)¹⁰, gave an introduction to EANET and its cooperation with ICP Forests. At present, 13 countries from northeast and southeast Asia are members of EANET. Regular activities started in 2001 and their manuals¹¹ are available in English and were partly reviewed by ICP Forests scientists. The network consists of 62 sites for wet deposition and air concentrations for dry deposition of which 31 are forest plots. He described the changing atmospheric environment in East Asia and presented the history of the cooperation between the two networks which started in 1998 and the memorial photo taken at the joint workshop in Malaysia in 2003. He then gave an overview on possible future scientific/technical collaborations: (a) a joint workshop on regional impact assessment; (b) contributions to the Acid Rain 2020 conference, (c) a transect campaign of O₃ concentrations from Europe to East Asia, and (d) continuous communications through scientific conferences, network meetings and technical reports. The workshop on regional impact assessment of atmospheric deposition and air pollution on forest ecosystems is planned for Nov./Dec. 2019 at ACAP in Niigata, Japan, for approx. 35 scientists including 7-8 scientists from ICP Forests. The 10th International Conference on Acid Deposition, which is titled “Acid Rain 2020 : The future environment and role of multiple air pollutants”, will be held also in Niigata City, Japan, 19-23 October 2020.

39 Mr Seidling then reported on recent co-operations with other organisations, e.g., conferences and workshops that members of the ICP Forests community attended, e.g., 125 Years of IUFRO, Freiburg, Sept. 2017; 3rd Asian Air Pollution Workshop and 28th IUFRO Conference in Tokyo, Oct. 2017. A workshop on tree mortality was held in Hanover in June 2017. A proposal for a new IUFRO Task Force on monitoring global tree mortality patterns and trends¹² is still under review.

40 Mr Seidling presented a **Letter of Support** for ICP Forests from Mr Mirtl from **LTER-Europe** as of 11 May 2018. It was discussed that members of the ICP Forests community should attend eLTER meetings and stress forest monitoring interests, i.e. promote ICP Forests manual and methods. Mr Kirchner explained that he currently discusses the future integration of ICP Forests plots in the eLTER metadata portal with members from eLTER. He referred to his speech at the 7th Scientific Conference of ICP Forests from the day before “ICP Forests and eLTER – a first handshake between data infrastructures”. The exact proceedings have to be clarified also in the ICP Forests network. Mr Seidling also reported on a Letter of Support from the Thünen Institute to the **Imperial College London** in the UK. There had been a long-lasting cooperation between PCC and IC on mycorrhizae at ICP Forests Level II sites resulting in several ISI Papers.

41 Mr Seidling presented potential collaborations such as the Plant Trait Database, the Global Forest Biodiversity Initiative (GFBI), and reported on his visit to forest research sites in Israel with the

¹⁰ <http://www.eanet.asia/>

¹¹ <http://www.eanet.asia/product/index.html>

¹² <http://tree-mortality.net>

Weizmann Institute of Sciences and his participation at the 4th Acacia Conference at the Dead Sea and Arava Science Centre. There are no administrative obstacles from the Air Convention for Israel to become a member of ICP Forests, however, although Israeli scientists would like to cooperate, administrations have not yet officially agreed.

Item 11 Status and future developments of the data infrastructure

42 Mr Kirchner presented the idea of an **open dataset**: a free set of general plot data for pre-analysis to decide if the ICP Forests data fits the scientist's objectives before making an official data request. Such a dataset could include information on, e.g., general plot descriptions, aggregated monitoring attributes, and metadata on data availability. This set of attributes does not have to be fixed but can be changed in future. After discussion the Task Force agreed on the proposed dataset which had been distributed by Mr Kirchner before the meeting.

43 Mr Kirchner then proposed several changes to the current version of the ICP Forests **data policy**.

- The Task Force agreed that the open dataset can be used without an official request. It can be published, merged and distributed with any other data/results. It has to be acknowledged as any other ICP Forests data and the set of attributes is defined by the Task Force on proposal coming from the PCC.
- After discussion the Task Force also agreed that processed/aggregated datasets can be requested without additional restrictions.

44 Mr Kirchner proposed that further agreements are needed for the publication process of a data paper. After discussion the Task Force agreed to the following additions to the data policy with regard to the publication of data papers:

- The publication has to be authorized by the concerned NFCs.
- The authorization request is send around to the NFCs by together the applicant and the PCC.
- Decisions about denials and approvals of the publication request are documented at the PCC.
- The collection and pre-processing of used monitoring data is considered to be a major contribution to a data paper. In consequence each data contributing party of the ICP Forests Network should be invited to name a co-author of the data paper.

The discrepancy between authorship of the data paper and the respective data in a data repository will be discussed further and a solution proposed at the next Task Force meeting.

45 Mr Kirchner then introduced **new features of the data portal**.

- Last parts of the system have moved from DigSyLand to the Thünen Institute due to restrictions to hire the same company year by year. Detailed and time-consuming revisions took place.
- It is now possible to acquire data with one download per SURVEY with a ZIP archive including additional information e.g. Data Accompanying Reports (DAR).
- A Central Data Accompanying Report (cDAR) of each survey is currently under preparation describing “things to know when working with the data”.
- All changes to attributes will be documented and presented in a pop-up window during data submission.

46 Mr Kirchner then described **changes to the data model**.

- In future, coordinates will be given on a 1 km x 1 km grid, although it will still be possible to give the exact coordinates. Coordinates shortened to geographic minutes will not be provided anymore in future. (Decision of the Task Force in 2017)
- Adding subplot numbers is still under development.
- Mr Kirchner still works on the harmonization of forms so that data can be submitted for all years in a unique format.

47 Mr Kirchner introduced the concept for a **new ICP Forests website**. The plan is to move all pages to a new site under icp-forests.org except for the social media activities which will remain available under the current address (icp-forests.net). Ideas include the publication of maps directly from the data or reports. He asked the Task Force to approach him with further ideas for the new ICP Forests website.

Item 12 Other business

48 All contact changes should be sent to Ms Michel at the PCC. She will update the information on the website.

49 On behalf of the General Directorate of Forestry, Mr Ahmet Karakaş and Mr Sıtkı Öztürk invited the Task Force to hold their 8th Scientific Conference and 35th Task Force Meeting in Turkey. The Task Force thanked Turkey for the kind invitation.

50 On behalf of the Task Force, Mr Ferretti and Mr Seidling thanked the organisers from the host country Latvia, especially Mr Zvirbulis and Ms Lībiete, for their hospitality and the professional organisation and arrangements of the 34th Task Force Meeting. Mr Ferretti then closed the meeting.

ANNEX I**List of Participants**

No	Last name	First name	Affiliation / Institute	Country
1	Apuhtin	Vladislav	Estonian Environment Agency	Estonia
2	Asi	Endla	Estonian Environment Agency	Estonia
3	Augustin	Sabine	Federal Office for the Environment - FOEN	Switzerland
4	Benham	Suzanne	Forest Research	UK
5	Canullo	Roberto	University of Camerino	Italy
6	Češljar	Goran	Institute of Forestry, Belgrade	Serbia
7	De Vos	Bruno	Research Institute for Nature and Forest (INBO)	Belgium
8	Delpont	Frédéric	Ministry of Agriculture, Forest Health Department	France
9	Denks	Taivo	Environment Agency	Estonia
10	Đorđević	Ilija	Institute of Forestry, Belgrade	Serbia
11	Eigirdas	Marijus	State Forest Service	Lithuania
12	Ferretti	Marco	Swiss Federal Research Institute WSL	Switzerland
13	Fürst	Alfred	Federal Research Centre for Forests	Austria
14	García Gómez	Héctor	CIEMAT	Spain
15	González	Ana	Ministry of Agriculture and Fishing, Food and Environment of Spain	Spain
16	Gottardini	Elena	Research and Innovation Centre, Fondazione Edmund Mach	Italy
17	Hansen	Karin	Swedish Environmental Protection Agency	Sweden
18	Ingerslev	Morten	University of Copenhagen	Denmark
19	Karakaş	Ahmet	Orman Genel Müdürlüğü	Turkey
20	Kirchner	Till	Thünen Institute of Forest Ecosystems	Germany
21	Kristöfel	Ferdinand	Austrian Research Centre for Forests	Austria
22	Landmann	Guy	ECOFOR	France
23	Lech	Paweł	Instytut Badawczy Leśnictwa	Poland
24	Levanič	Tom	Slovenian Forestry Institute	Slovenia
25	Lundin	Lars	Swedish University of Agricultural Sciences	Sweden
26	Mačiulskas	Modestas	State Forest Service	Lithuania
27	Maderniece	Evita	Latvian Environment, Geology and Meteorology Centre	Latvia
28	Merilä	Päivi	Natural Resources Institute Finland (Luke)	Finland
29	Michel	Alexa	Thünen Institute of Forest Ecosystems	Germany
30	Michopoulos	Panagiotis	Institute of Mediterranean Forest Ecosystems	Greece
31	Nicolas	Manuel	Office national des forêts	France
32	Nieminen	Tiina	Natural Resources Institute Finland (Luke)	Finland
33	Öztürk	Sıtkı	Orman Genel Müdürlüğü ANKARA	Turkey
35	Pavlenda	Pavel	National Forest Centre	Slovakia
36	Popa	Ionel	INCDS Marin Dracea	Romania
37	Popova	Genoveva	Executive Environment Agency	Bulgaria
38	Potočić	Nenad	Croatian Forest Research Institute	Croatia
39	Prescher	Anne-Katrin	Thünen Institute of Forest Ecosystems	Germany
40	Purina	Kristine	Ministry of Environment and Regional Development	Latvia
41	Raspe	Stephan	Bavarian State Institute of Forestry	Germany
42	Rautio	Pasi	Natural Resources Institute Finland	Finland
43	Sase	Hiroyuki	Asia Center for Air Pollution Research, JESC	Japan

No	Last name	First name	Affiliation / Institute	Country
44	Schaub	Marcus	Swiss Federal Research Institute WSL	Switzerland
45	Schüler	Silvio	Austrian Research Centre for Forests	Austria
46	Seidling	Walter	Thünen Institute of Forests Ecosystems	Germany
47	Seletković	Ivan	Croatian Forest Research Institute	Croatia
48	Skudnik	Mitja	Slovenian Forestry Institute	Slovenia
49	Strich	Sigrid	Federal Ministry of Food and Agriculture	Germany
50	Szepesi	András	Ministry of Agriculture	Hungary
51	Šrámek	Vít	Forestry and Game Management Research Institute	Czechia
52	Timmermann	Volkmar	Norwegian Institute of Bioeconomy Research	Norway
53	Ukonmaanaho	Liisa	Natural Resources Institute Finland	Finland
54	Verstraeten	Arne	Research Institute for Nature and Forest (INBO)	Belgium
55	Waldner	Peter	Swiss Federal Research Institute WSL	Switzerland
56	Žlindra	Daniel	Slovenian Forestry Institute	Slovenia

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ANNEX II

Agenda of the 34th Task Force Meeting of ICP Forests in Riga, Latvia

PCC of ICP Forests at the Thünen Institute of Forest Ecosystems, Eberswalde, Germany
 Latvian State Forest Research Institute (SILAVA), Riga, Latvia

Monday, 21 May	Welcome Reception
	Venue (new address): Hotel Avalon, 13 janvara iela 19, Riga
18:00 – 22:00	Welcome Reception
Tuesday, 22 May	Scientific Conference
	Venue: Main Office of Joint Stock Company “Latvia’s State Forests” (LVM), Vaiņodes 1, Riga
08:00 – 09:00	Registration
09:00 – 18:30	Scientific Conference , for schedule please refer to the Book of Abstracts, available at the registration desk and the conference/ICP Forests website
Wednesday, 23 May	Scientific Conference
	Venue: Main Office of Joint Stock Company LVM
09:00 – 12:40	Scientific Conference continued
12:40 – 13:30	Lunch
Wednesday, 23 May	Half-day Excursion
	Meeting place: Main Office of Joint Stock Company LVM after lunch
13:30	Excursion to research plot and ‘The Great Kemeru Bog Boardwalk’ in Kemeru National Park. Convivial ending with dinner in Restaurant „Neptūns”, Jaunkemeru ceļš 1, Jūrmala
Thursday, 24 May	Task Force Meeting
	Venue: Main Office of Joint Stock Company LVM
08:30 – 09:00	Registration
09:00 – 09:10	Opening by host
Item 1	Adoption of the agenda/minutes
09:10 – 09:20	Adoption of meeting agenda, adoption of minutes 33 rd TFM
Item 2	Report of PCC
09:20 – 09:40	Report on activities and progress since the 33 rd TFM
09:40 – 09:55	PCC staff now and in forthcoming months
Item 3	Reports/brochures issued by PCC
09:55 – 10:30	Presentation of the 1 st , 2 nd and 3 rd thematic ICP Forests brief Draft of the Technical Report 2018 Outline of the Executive Report 2018
10:30 – 11:00	Coffee break
Item 4	Issues concerning WGE / Air Convention (CLRTAP)
11:00 – 11:45	Presentation and potential realisation of the WGE Workplan 2018-2019 Outline of “Executive Summary 2018” will be presented for discussion

Thematic sessions at 4th Joint Session EMEP/WGE, 10-14 Sept.2018

Draft: Mandate for PCC

Draft: Long-term strategy for the Air Convention

Saltsjöbaden workshop

Financial statement, funding issues

Item 5

11:45 – 11:55

Reports of sister ICPs

Report on activities of ICP Integrated Monitoring

11:55 – 12:10

Joint Workshop ICP Forests – ICP Vegetation “Assessing and estimating ozone impacts on forest vegetation”

12:10 – 13:10

Lunch

Item 6

13:10 – 13:30

Minor manual changes between updates

Discussion and adoption

Item 7

13:30 – 15:30

Activities of the Expert Panels and Committees of ICP Forests

Reports by the chairs of Expert Panels, Quality Assurance Committee, Working Group on Quality in Laboratories and the Scientific Committee

15:30 – 16:00

Coffee Break

Item 8

16:00 – 16:20

Internal data analyses and studies by external institutions

On-going studies based on ICP Forests data

Item 9

16:20 – 17:00

Future and recent EU initiatives and calls

The new NEC Directive and its relevance for the programme

17:00 – 18:00

Strategies for promoting and responding; potential partners for consortia

19:30

Conference (Working) Dinner

Venue: Hotel Avalon, 13 janvara iela 19, Riga

Friday, 25 May

Task Force Meeting (continued)

Item 10

09:00 – 09:15

Co-operations with other international organisations

Presentation EANET

09:15 – 09:40

Co-operations with other organisations: LTER (LoS), IUFRO, EEA

Item 11

09:40 – 10:40

Status and future developments of the data infrastructure

- free set of general plot data
- changes of the data policy
- new features of the data portal
- concept of the new webpage
- changes to the data model (database structure)

10:40 – 11:10

Coffee break

Item 12

11:10 – 11:25

Other business

Task Force meeting 2019

11:25 – 13:00

Any other business

13:00

Closing of the 34th Task Force Meeting