

# **2018-2019 Workplan for the Implementation of the Convention Working Group on Effects Activities**

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# 2018-2019 Workplan

- ✓ Workplan:

  - Linked to concrete objectives and deliverables

  - Activities not included in the Mandates

  - Including activities pending funding

- ✓ In line with recommendations from Policy Review

  - Group and LTS

# Task Force on Health

<i>WP item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>
1.1 Improving tools to assess air pollution and its effects in the ECE region		
1.1.1 Monitoring and modelling tools		
1.1.1.25	Consolidate <b>existing evidence on health outcomes of exposure</b> to air pollution	Update of the evidence on the health impact of O <sub>3</sub> , PM, NO <sub>2</sub> , SO <sub>2</sub> and CO. A (scoping) report on emerging issues and methods for health risk/impact assessment of air pollution and cost benefit analysis(pending availability of resources)
1.1.1.26	Further develop <b>methodologies for assessment</b> and quantification of <b>direct and indirect effects</b> of LRTAP	Update of tools for quantification of health burden of air pollution
1.2 Cooperation with Parties		
1.2.3	<b>Capacity-building</b> for the health impact assessment of air pollution at the regional and subregional levels	
1.3 Cooperation with other projects and bodies (outreach activities)		
1.3.6	Review the <b>methods used for estimating burden of disease</b> attributable to air pollution	Regional input to the global project coordinated by WHO Headquarters; technical report
1.3.7	Review <b>communication strategies</b> for health messages related to air pollution, including on short-term episodes and for susceptible groups	Regional input to the global project coordinated by WHO Headquarters; technical report

# Task Force on Health

Suggestion of an addition of a PAH working group  
to workplan ECE/EB.AIR/2017/1, TFH activities.

<i>WP item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Resource requirements and/or funding source</i>
111.xx	To evaluate the current knowledge on the <b>health risk of PAHs</b> and identify critical gaps – to assess whether and to what extent the work on this issue could be continued or not by the TFH.	To suggest a roadmap of how health risks of PAHs can be assessed in view of their relative carcinogenic potencies. To evaluate the representativeness of BaP as an indicator for the PAH-group. To evaluate how equivalence factors can be used in risk assessment of PAHs.	Covered by Sweden, Norway with support from Finland and Switzerland and other potential interested countries

# ICP- Materials

<i>WP item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Resource requirements</i>
1.1 Improving tools to assess air pollution and its effects in the ECE region			
1.1.1 Monitoring and modelling tools			
1.1.1.8	Monitoring and assessment of the <b>impact of the environment on corrosion and soiling</b> effects on materials as well as their trends	Report on the trend exposure programme 2017-2018: Technical Manual (2018). Corrosion and soiling data (2019)	Covered by Italy, Sweden and recommended contributions
1.1.1.9	Gathering information on policy-relevant user <b>friendly indicators</b> to evaluate air pollution effects on materials by conducting <b>case studies on UNESCO</b> cultural heritage sites	Call for data on UNESCO sites: Report on risk assessment (2018). Report on economic evaluation (2019)	Covered by Italy, Sweden and recommended contributions

# ICP- Integrated Monitoring

<i>WP item</i>	<i>Activity description/objective</i>	<i>Expected outcome/ deliverable</i>
<b>1.1 Improving tools to assess air pollution and its effects in the ECE region</b>		
<b>1.1.1 Monitoring and modelling tools</b>		
1.1.1.27	<b>Long-term trends</b> in atmospheric <b>deposition and runoff water chemistry</b> of S and N compounds at ICP IM catchments in relation to changes in emissions and hydrometeorological conditions	Scientific paper (2018)
1.1.1.28	<b>Dynamic modelling</b> on the impacts of <b>future deposition scenarios</b> on soil and water conditions in ICP IM catchments	Scientific paper (2018)
1.1.1.29	Dynamic modelling on the <b>impacts of deposition and climate change</b> scenarios on ground vegetation	Report (2019)
1.1.1.30	<b>Relationship</b> between critical load <b>exceedances and empirical</b> ecosystem impact indicators	Scientific paper (2019)

# ICP- Waters

<i>item</i>	<i>Activity description/objective</i>	<i>Expected outcome</i>	<i>Lead body(ies)</i>
1.1 Improving tools to assess air pollution and its effects in the ECE region			
1.1.1 Monitoring and modelling tools			
1.1.1.10	Regional assessment of surface water <b>acidification</b>	Final Report (2018)	ICP Waters with possible contributions from ICP M&M and ICP IM at the Task Force meeting in 2018
1.1.1.11	Prepare new thematic report for 2019 (suggested topic, to be decided on 2018 TF meeting: “retention and effects of <b>reactive nitrogen</b> in surface waters”)	Report (2019)	ICP Waters with possible contributions from other bodies under the Convention
1.1.1.33	Further explore the fish <b>mercury</b> database	Report or scientific paper	ICP Waters

# ICP- Forests

<i>WP item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>
1.1 Improving tools to assess air pollution and its effects in the ECE region			
1.1.1 Monitoring and modelling tools			
1.1.1.19	Levels and effect of ground-level ozone in Forests (continuation of <b>monitoring ozone</b> concentration and visible foliar injury)	Reports	ICP Forests
1.1.1.20	Integrated studies on effects of <b>ground-level ozone on tree growth, carbon sequestration and forest health</b> , including estimates of ozone fluxes, at least for the most important tree species	Report	ICP Forests
1.1.1.21	<b>N deposition and its effects</b> on forest vegetation (monitoring activities according to the ICP Forests Manual)	Reports	ICP Forests
1.1.1.22	Integrated studies on <b>N deposition effects on tree growth, C sequestration</b> , biodiversity, soil and foliar chemistry specific, or mycorrhizas	Report	ICP Forests
1.1.1.23	<b>Heavy metals (HM)</b> in forest ecosystems: evaluation of available data to achieve an estimation of HM <b>deposition and accumulation</b> in soils, foliage and litterfall	Reports	ICP Forests
1.1.1.24	<b>Integrated studies on HM s in Forests</b>		ICP Forests
1.1.4 Tools to account for global-scale issues in air quality assessment			
1.1.4.1	<b>Global-regional modelling and evaluation</b>	Report (2018), Workshop (2019)	TFHTAP, TFMM, MSC-W, ICP-Forsts, ICP-Veg



# ICP- Vegetation

<i>item</i>	<i>Activity description/objective</i>	<i>Expected outcome</i>	<i>Lead body(ies)</i>
1.1 Improving tools to assess air pollution and its effects in the ECE region			
1.1.1 Monitoring and modelling tools			
1.1.1.12	Improving and validating soil moisture index in EMEP model	Report (2018)	In collaboration with EMEP/MSC-West
1.1.1.13	Report on available evidence of ozone impacts on crops in developing regions	Report (2018)	
1.1.1.14	Final report of 2015/16 survey on heavy metals, nitrogen and POPs concentrations in mosses	Final Report (2018)	
1.1.1.15	Ozone flux maps adapted for soil moisture limited areas	Ozone Flux Maps (2019)	n in collaboration with EMEP/MSC-West
1.1.1.16	Monitoring manual for 2020 survey on heavy metals, nitrogen and POPs concentrations in mosses	Monitoring Manual (2019)	
1.1.4 Tools to account for global-scale issues in air quality assessment			
1.1.4.1	Global-regional modelling and evaluation	Deposition workshop (2019)	TFHTAP, TFMM, MSC-W, ICP-Forsts, ICP-Veg
1.3 Cooperation with other projects and bodies (outreach activities)			
1.3.5	Assessment of ozone risks in selected regions in the Northern hemisphere	Ozone risk maps for TFHTAP regions	In collaboration with TFHTAP

# ICP- Modelling & Mapping

<i>item</i>	<i>Activity description/objective</i>	<i>Expected outcome/ deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements</i>
1.1 Improving tools to assess air pollution and its effects in the ECE region				
1.1.1 Monitoring and modelling tools				
1.1.1.17	<b>Transfer the EU DB to EMEP-CIAM</b> following adoption (WGE) of results of the 2015-2017 call for data (september 2017)	The 2017 DB for CL acidification and eutrophication transferred to CIAM (2018) Use of the CL acidification and eutrophication by CIAM for policy support	CCE-CIAM	CCE-CIAMs
1.1.1.18	A <b>WGE call</b> (at the 3rd joint session of EMEP/WGE) for reports to Parties to consolidate the Biodiversity Critical Loads data	Preparation of national CLbio according to instructions in the 2015-2017 call for data (2018). NFCs should report on their work in response to this WGE call, but withhold data until a new CCE becomes operational	ICP M&M and NFCs and optionally seek collaboration with Alterra	Depending on (In kind) funding: NFCs and Alterra
1.2 Cooperation with Parties				
1.2.2	Translation of the Modelling and Mapping Manual into Russian	The Modelling and Mapping Manual translated into Russian (2018)		In-kind contribution by Russian Federation

# JEG – Dynamic Modelling

<i>item</i>	<i>Activity description/objective</i>	<i>Expected outcome</i>	<i>Lead body(ies)</i>
<b>1.1 Improving tools to assess air pollution and its effects in the ECE region</b>			
<b>1.1.1 Monitoring and modelling tools</b>			
1.1.1.31	Continue to examine <b>progress in dynamic modelling of ecosystems effects</b>  Continue to <b>establish links between monitoring and modelling</b> work under WGE and related work of external partners	In-depth analysis and coordination of efforts	JEG-Dynamic Modelling
1.1.1.32	Development and maintenance of JEG <b>website</b>	Establishment of JEG website	JEG-Dynamic Modelling

# Improving the functioning

Item	Activity description/objective	Expected outcome	Lead body(ies)
1.4 Improving the functioning of WGE and EMEP and their subsidiary bodies			
1.4.1	Analyse effects <b>monitoring networks</b> within the WGE to improve integrated working and reporting	Report on the effects monitoring network within the WGE (2019)	WGE, ICPs
1.4.2	Assess the <b>complementarity of EMEP monitoring and observations undertaken by the ICPs</b> . Facilitate the use of TFMM models for WGE community, for instance in terms of ozone fluxes or model-data fusion for deposition mapping	Report and joint EMEP/WGE workshop (2019)	TFMM and WGE
1.4.3	<b>(Explore) Develop a common portal</b> to enable integrated assessments and to assist the Parties in their implementation of air pollution strategies	Improvement of data access via the web(2019)	EMEP, WGE including ICPs and other subsidiary bodies
1.4.4	Review and analyse the needs of Parties regarding data produced by WGE and EMEP	Questionnaire to Parties (2018) and recommendations to the Executive Body	WGE, EMEP Steering Body
1.4.5	Prepare updated EMEP and WGE strategies	Draft strategies for EMEP and WGE	

# PRG Recommendations for EMEP/WGE

## *A. Enabling Sound Policy Decisions*

### 1. Human health effects (1,2,3,4)

- Important to continue to assess health effects (PM, Ozone, HMs, POPs, Hg....)

### 2. Integrated environmental policy (5,6,7)

- Continue developing the multi-effect, multi-pollutant framework
- Ozone-nitrogen-climate-biodiversity interactions
  - Further science and policy work is needed
  - Communicate and cooperate with climate, biodiversity policies

# PRG Recommendations for EMEP/WGE

## *C. Improving the Technical & Scientific Basis*

- 1. Emission data
  - Completeness, accuracy, review and verification
- 2. Dispersion modelling (72)
  - EMEP/WGE cooperation on modelling and mapping atmospheric deposition
  - More work on unintentionally released POPs (UPOPs)
- 3. Scope of monitoring and challenges to the existing monitoring systems (75)
  - Parties should maintain or extend monitoring activities in their own interest
  - Improve QA/QC

# PRG Recommendations for EMEP/WGE

## *C. Improving the Technical & Scientific Basis*

- 4. Improving the functioning of the Working Group on Effects and EMEP and their subsidiary bodies
  - Improve access to data (77)
  - Harmonizing technical standards (78)
  - Integration of work & and new financial mechanism (79, 80)
- 5. Linked, multipurpose monitoring under the Convention (81,82,83,84)
  - Intensify links between networks, harvest synergies considering limited resources
- 6. Hemispheric air pollution
  - Summarize information to WGSR in order to begin policy discussions

# Long-term PRG recommendations for EMEP/WGE

## Focus on Effects

- Airborne effects of HMs and POPs, taking into account work under related global conventions (4)
- Empirical ecosystem **research on dose-response** functions for ozone and nitrogen (6)
- Which links between climate change, carbon and nitrogen biogeochemistry and POP/HM biogeochemistry are most policy relevant (7)
- Implementation of strategies for cooperation on modelling and mapping between MSC-E and –W with ICPs (70)
- Keep up or extend **monitoring activities** (73)
- Cooperation with priority regions & working with international bodies (119-127, 129, 131-138)



# Long-term PRG recommendations for EMEP/WGE

## Focus on Effects

- Airborne effects of HMs and POPs, taking into account work under related global conventions (4)
- Empirical ecosystem **research on dose-response** functions for ozone and nitrogen (6) → Needs support at national level
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- Implementation of strategies for cooperation on modelling and mapping between MSC-E and –W with ICPs (70)
- Keep up or extend **monitoring activities** (73) → Needs support at national level
- Cooperation with priority regions & working with international bodies (119-127, 129, 131-138)

**Thank you for your attention**