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Report of the Executive Body on its thirty-second session

Addendum

2014–2015 workplan for the implementation of the Convention

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Introduction

1. The workplan translates the vision, objectives and strategic approaches set in out in the Long-term Strategy for the Convention on Long-Range Transboundary Air Pollution (ECE/EB.AIR/106/Add.1, decision 2010/18, annex) into a biannual workplan for the period 2014–2015. Its structure builds on the primary needs of the Convention and its Parties, relating to five main areas: science; policy; compliance; capacity-building; and communication and outreach. For each area, an introduction provides a short description of the activities, their objective and the main intended outcome, in line with the Long-term Strategy. A table presents the specific activities planned and the lead body. The main responsible bodies, i.e., the Executive Body and its subsidiary bodies, are assigned tasks within the framework of their mandates.

2. This approach to structuring the workplan allows Parties to better assess the work of the different subsidiary bodies and their deliverables in the light of meeting the Convention's needs and ensuring progress in realizing the vision set out in the Long-term Strategy. It takes account of the recommendation by the ad hoc group of experts that "the Executive Body and its Bureau should give more attention to developing and scrutinizing workplans to provide better focus for targeting the Convention's priorities and ensuring appropriate outputs" (ECE/EB.AIR/2012/15, para. 7).

3. The full implementation of the activities in the workplan will require resources in addition to those provided by the United Nations regular budget and the Protocol on Long-term Financing of the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP Protocol). Therefore, Parties are invited to support the Convention's activities in 2014–2015, particularly those not covered by the EMEP Protocol, by contributing to the Convention's trust fund, by financing activities directly and by making in-kind contributions. Parties are also invited to take the lead in supporting the specific activities substantially. Resources required for activities not covered by the United Nations regular budget and by the budget provided for by mandatory contributions under the EMEP Protocol and recommended contributions under decision 2002/1 on the financing of core activities are indicated in United States dollars (US\$). Parties or organizations providing additional resources for the period 2014–2015 are acknowledged in the column "Resource requirements and/or funding source".

4. In accordance with article 11 of the Convention, the United Nations Economic Commission for Europe (ECE) is carrying out the secretariat functions entrusted to it:

- (a) To convene and prepare the meetings of the Executive Body;
- (b) To transmit to the Parties reports and other information received in accordance with the provisions of the Convention;
- (c) To discharge the functions assigned to it by the Executive Body.

5. The role of the secretariat has been further specified in the Convention's protocols and several Executive Body decisions and, in particular, in decisions 2010/19 (rules of procedure), 2012/25 (improving the functioning of the Implementation Committee) and 2012/3 and 2012/12 (adjustments under the Protocol to Abate Acidification, Eutrophication and Ground-level Ozone (Gothenburg Protocol) to emission reduction commitments or to inventories for the purposes of comparing national total emissions with them).

6. Activities covered by the regular United Nations budget can be supported by extrabudgetary resources, as available.

1. Science

7. In line with the priorities set out in the Long-term Strategy for the Convention, science-based decision-making and the effects-oriented approach will remain an essential component of the Convention and the links between science and policy development will be retained and further strengthened. User-friendly effect indicators and cost-benefit assessments are important to policy, politicians and the public and will be further developed. The science-related work in the period 2014–2015 will aim to make further progress on the remaining and emerging challenges identified in the Long-term Strategy (e.g., particulate matter (PM), tropospheric ozone, critical load exceedances and linkages between air pollution, climate change and biodiversity). It will also aim to further integrate the various elements covered by the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP) and the effects-oriented activities. This integration will be demonstrated through common/joint outcomes/ deliverables, like assessment reports, country reports, joint websites, capacity-building or responses to the needs of Parties. Many of the scientific tools developed under the Convention, such as integrated assessment modelling, are used by other stakeholders and will continue to be further developed.

8. The main goal of atmospheric and effects monitoring (table 1, item 1.1) is to provide relevant data and to analyse air pollutant concentrations and depositions and their adverse effects on human health and ecosystems, damage to crops and materials. In general, the monitoring provides the information on the status and long-term trends of the environment in time and across the ECE region.

9. The main goal of the work on dose response and critical loads (table 1, item 1.2) is to provide comprehensive information that gives a measure of the damage or potential damage caused by air pollution to various ecosystems including Natura 2000 protected areas and agricultural areas.

10. The main goal of the atmospheric and effects modelling activities (table 1, item 1.3) is to support the implementation of protocols to the Convention by providing the modelling tools necessary for the assessment of abatement policies. The modelling provides predictive capacity and enables the development of effective policies. It also helps to compile and evaluate information on transboundary air pollution exchange and assists the implementation of the EMEP monitoring strategy. This work provides direct input to integrated assessment modelling and assessment of the hemispheric transport of air pollution.

11. The main goal of further developing emission inventories (table 1, item 1.4) is to improve their quality, transparency, consistency and completeness. Parties are supported with their emission reporting requirements under the Convention and its protocols. Methodologies are being developed to evaluate emission data and projections, so that reporting problems are identified and resolved. Reporting requirements, to the extent possible, are constantly being harmonized with other bodies, in particular the United Nations Framework Convention on Climate Change (UNFCCC) and the European Union (EU) National Emission Ceilings Directive.¹ Estimated emissions and their projections provide direct input to integrated assessment modelling and a basis for the review of compliance. A specific activity covered under this workplan item concerns the review of

¹ Directive 2001/81/EC of the European Parliament and of the Council of 23 October 2001 on national emission ceilings for certain atmospheric pollutants.

applications for adjustments to emission inventories submitted in accordance with Executive Body decisions 2012/3, 2012/4 and 2012/12.

12. The main goal of integrated assessment (table 1, item 1.5) is to carry out a science-based evaluation and assessment of the effectiveness of policies (past and future ones) and protocols (a strategic priority of the Convention). Integrated assessment modelling is carried out to analyse scenarios on cost-effective reduction of acidification, eutrophication, tropospheric ozone, human exposure to PM and ozone, and short-term regional radiative forcing. Integrated assessment modelling covers: (a) abatement options for reducing sulphur, nitrogen oxides, ammonia, non-methane volatile organic compounds (NMVOCs), methane, primary PM, organic and black carbon and carbon monoxide, including structural measures in energy, transport and agriculture, as well as their costs; (b) projections of emissions; (c) assessments of the atmospheric transport of substances; and (d) analysis and quantification of the environmental and health effects and benefits of emission reductions.

13. The main goal of the work on hemispheric transport of air pollution (table 1, item 1.6) is to develop a fuller scientific understanding of the intercontinental transport of air pollution across the Northern Hemisphere, its impacts on health, ecosystems and climate, and the linkages between regional air pollution and global change. The activities include collaboration with international bodies, programmes and networks, both within and outside the ECE region, with related interests. The work is organized around six themes: model development and evaluation, source attribution and source/receptor analysis, impacts of air pollution on health, ecosystems and climate, impact of climate change on air pollution, global emissions inventories and projections and distributed data network and analysis tools.

14. Work on science-policy messages/recommendations (table 1, item 1.7) will be in the form of assessment and synthesis reports of the work by the scientific subsidiary groups prepared to identify trends and highlight policy-relevant scientific findings.

Table 1
Science

<i>Workplan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements and/or funding source</i>
1.1	Atmospheric and effects monitoring			
1.1.1	Assist Parties in implementing the Revised Strategy for EMEP for 2010–2019 (EMEP monitoring strategy); strengthen activities in regions with inadequate monitoring activities	Strengthened monitoring activities and implementation of the EMEP monitoring strategy	Chemical Coordinating Centre (CCC)	Covered by EMEP mandatory contributions and Norway
	Set priorities for monitoring and other collection of data by Parties in view of policy needs and given financial constraints. Prioritize calls for data and data collection for International Cooperative Programmes (ICPs) in view of the policy needs and given financial constraints	An updated list of monitoring and inventory priorities and recommendation to thirty-third session of the Executive Body	Working Group on Effects	Covered by recommended contributions and Parties
1.1.2	Revise and develop further the methodologies to be applied in	Updated EMEP manual for	CCC	Covered by EMEP mandatory

<i>Workplan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements and/or funding source</i>
	monitoring atmospheric composition change; update the EMEP manual for sampling and chemical analysis, for prioritized species	sampling and chemical analysis		contributions and Norway
1.1.3	Carry out quality assurance and quality control, handle and store for the long term observation data reported by Parties Provide training and assistance to Parties on data reporting, metadata documentation and dissemination	Online access to data via CCC website database (http://ebas.nilu.no/) in downloadable format Results presented on CCC website and/or in technical reports Increased quality of air pollution measurements; improved databases with measurements results New templates presented on CCC website Training courses related to measurement activities, quality assurance and quality control Arrange laboratory intercomparison for variables required by the EMEP monitoring strategy Update and further develop database, provide access to data for collaborating organizations	CCC	Covered by EMEP mandatory contributions and Norway
1.1.4	Interpret and assess together with the Parties the observation data, interact with EMEP modelling centres on data use, assess temporal and spatial trends	EMEP status reports, EMEP joint report on particulate matter, CCC and Task Force on Measurements and Modelling websites	CCC, Meteorological Synthesizing Centre-East (MSC-E), Meteorological Synthesizing Centre-West (MSC-W), Task Force on Measurements and Modelling	Covered by EMEP mandatory contributions and Norway
1.1.5	Ensure strong links with scientific groups involved in level II and level III measurement activities, and implementation of intensive observation periods	Publication of peer-reviewed papers from EMEP intensive measurement periods Plan for the intensive measurement campaign and coordination of its	CCC	Covered by EMEP mandatory contributions and Norway

<i>Workplan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements and/or funding source</i>
		implementations		
1.1.6	Ensure scientific and technical cooperation with effects-oriented monitoring activities Facilitate compatibility and exchange of data related to EMEP monitoring with other monitoring activities that have complementary objectives, including activities on local air quality, short-lived climate forcers and long-lived greenhouse gases	Provide support to Parties and groups under the Convention through participation and input to relevant meetings, representing EMEP Report on the task and inform Parties on relevant findings and actions needed or taken	CCC	Covered by EMEP mandatory contributions and Norway
1.1.7	Foster outreach activities Contribution to and visibility in a variety of different reports from other organizations, bodies, programmes and projects Share information gathered as required by the Convention with other Conventions and international bodies	Report on relevance, significance and lessons learned from participation in and interaction with monitoring efforts and data assessments external to the Convention	CCC	Covered by EMEP mandatory contributions and Norway
			MSC-E, MSC-W, CCC, Centre on Emission Inventories and Projections (CEIP)	Covered by EMEP mandatory contributions
1.1.8	Trends analysis of air concentrations and deposition based on monitoring data and model results	Report on observed and modelled trends in atmospheric concentrations and depositions in the Parties over the past 20 years	Task Force on Measurements and Modelling	Covered by France, the World Meteorological Organization (WMO) and all Parties
1.1.9	Exchange views, experiences and suggestions on: (a) the quality, efficiency and sufficiency of EMEP measurements and data; and (b) performance and the need for improvements in models (EMEP models and those developed by the Parties) and in the scope of their application (such as for national assessments of air quality, assessment of transboundary fluxes and their influence on air quality at national levels, trend analyses, etc.)	Annual Task Force meeting Annual summary report to EMEP Steering Body on activities and science-relevant messages and recommendations Recommendations to national measurement and modelling teams and for EMEP centres Examples of good practices on national and international scales Annual summary report to EMEP Steering Body with policy-relevant messages and recommendations	Task Force on Measurements and Modelling	Covered by France, WMO and Parties

<i>Workplan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements and/or funding source</i>
1.1.10	Take actions to: (a) further implement the Guidelines for Reporting on the Monitoring and Modelling of Air Pollution Effects; (b) enhance the involvement of countries in Eastern Europe, the Caucasus and Central Asia; and (c) cooperate with programmes and activities outside the ECE region and provide information on them to the Executive Body	Annual reports to sessions of Working Group on Effects and to the Executive Body	ICPs, Joint Task Force on the Health Aspects of Air Pollution (Task Force on Health), Joint Expert Group on Dynamic Modelling	Covered by the respective lead countries and recommended contributions
1.1.11	Prepare an annual report to the Executive Body for its meeting in 2014 on recent findings under Working Group on Effects and their implications for policy	Annual joint report with clear policy-relevant messages and recommendations to the Working Group on Strategies and Review and to the Executive Body	ICPs, Task Force on Health, Joint Expert Group on Dynamic Modelling	Covered by the respective lead countries and recommended contributions
1.1.12	Report to the Working Group on Strategies and Review at its meeting in 2015 on scientific findings of policy relevance from joint meeting of Working Group on Effects /EMEP Steering Body in 2015, using the template agreed at the Executive Body session in December 2013	Report of joint meeting of Working Group on Effects /EMEP with recommendations as appropriate to the Working Group on Strategies and Review	Chairs and Bureaux of Working Group on Effects /EMEP Steering Body	—
1.1.13	Report on policy implications of scientific findings from 1.1.12	Report to the Executive Body session in 2016	Chairs: Working Group on Strategies and Review, Working Group on Effects and EMEP Steering Body	—
1.1.14	Quantify multi-pollutant effects on: (a) the corrosion and soiling of selected materials under different environmental conditions; (b) United Nations Educational, Scientific and Cultural Organization (UNESCO) cultural heritage sites	Report on: (a) trends in pollution, corrosion and soiling 1987–2012; and (b) inventory and condition of stock of materials at risk at UNESCO cultural heritage sites	ICPs Materials	Covered by Italy, Sweden and recommended contributions
1.1.15	Identify: (a) the state of surface water ecosystems and their long-term changes with respect to the impact of selected air pollutants, including effects on biota; and (b) changes in biodiversity and climate in surface water ecosystems	Report on: (a) trends in surface water chemistry and biology up to 2011, and ecosystem response to emission reductions; and (b) biodiversity and climate (to be decided at the next Task Force meeting in October 2013)	International Cooperative Programme on Assessment and Monitoring of the Effects of Air Pollution on Rivers and Lakes	Covered by Norway and recommended contributions

<i>Workplan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements and/or funding source</i>
			(ICP Waters)	
1.1.16	Collect, assess and carry out integrated evaluation of: (a) comprehensive and comparable data on nitrogen deposition and/or critical load exceedance on tree defoliation; (b) impact of air pollution and climate change on forest growth; (c) impact of nitrogen deposition on tree nutrition and nutrient cycling; (d) nitrogen deposition and nitrate leaching into groundwater	Report on: (a) nitrogen critical load exceedance on tree defoliation; (b) impact of air pollution and climate change on forest growth; (c) impact of nitrogen deposition on tree diseases; (d) nitrogen deposition and nitrate leaching into the groundwater	International Cooperative Programme on Assessment and Monitoring of Air Pollution Effects on Forests (ICP Forests)	Covered by Germany and recommended contributions
1.1.17	Evaluate effects on (semi-)natural vegetation and crops due to the impact of: (a) tropospheric ozone; (b) co-occurring pollutants (ozone and nitrogen) and climatic stresses; (c) air pollution in Eastern and South-Eastern Europe, the Caucasus and Central and South-East Asia; (d) rising background ozone levels in Europe	Annual report on: (a) supporting evidence for ozone impacts on vegetation; (b) the interacting effects of co-occurring pollutants (ozone and nitrogen) and climatic stresses on vegetation; (c) air pollution deposition to and impacts on vegetation in Eastern and South-Eastern Europe, the Caucasus and Central and South-East Asia; (d) the implications of rising background ozone for vegetation in Europe	International Cooperative Programme on Effects of Air Pollution on Natural Vegetation and Crops (ICP Vegetation)	Covered by the United Kingdom of Great Britain and Northern Ireland and recommended contributions
1.1.18	Develop further the flux-based approach for setting critical levels of ground-level ozone for vegetation Update the dose-response functions	Updated chapter 3 of the Manual on Methodologies and Criteria for Modelling and Mapping Critical Loads and Levels and Air Pollution Effects, Risks and Trends	ICP Vegetation, ICP Forests	Covered by the United Kingdom and recommended contributions
1.1.19	Carry out preparatory work for the European moss survey 2015/16	Annual progress reports on preparations for the European moss survey 2015/16 (heavy metals, nitrogen and persistent organic pollutants (POPs))	ICP Vegetation	Funding sources to be clarified
1.1.20	Evaluate long-term trends in ecosystem effects of sulphur, nitrogen and heavy metals	Report and scientific paper	International Cooperative Programme on Integrated Monitoring of Air Pollution Effects on Ecosystems	Covered by Finland, Sweden and recommended contributions

<i>Workplan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements and/or funding source</i>
			(ICP Integrated Monitoring)	
1.2	Dose response and critical loads			
1.2.1	Analyse and compile the responses by National Focal Centres to the 2012 call for data and contributions to a dedicated Coordination Centre for Effects (CCE) report addressing: (a) dynamic modelling of abiotic and biotic changes in European Nature Information System (EUNIS) habitat classes; and (b) tentative applications on a regional scale. See also items 2.3.8 and 4.8. Foster collaboration between National Focal Centres, CCE and habitat experts on the effects of air pollution, with an emphasis on nitrogen deposition on protected areas	Annual reports to Working Group on Effects and the Executive Body. Increased collaboration between National Focal Centres, CCE and habitat experts. Preliminary application of the endpoints and indicators at European scale	International Cooperative Programme on Modelling and Mapping of Critical Loads and Levels and Air Pollution Effects, Risks and Trends (ICP Modelling and Mapping), CCE	Covered by France, the Netherlands and recommended contributions
1.2.2	Determine and predict the state of ecosystems and their long-term changes with respect to the regional variation and impact of selected air pollutants, with special attention to effects on biota, and a special focus on monitoring the state of catchments and other ecosystems	Report and scientific paper on mass balances and indicators for sulphur and nitrogen in catchments	ICP Integrated Monitoring	Covered by Finland, Sweden and recommended contributions
1.2.3	Develop further the methodologies for assessment of direct and indirect effects of long-range transboundary air pollution on human health	Report on update of methods for quantification of health burden of air pollution	Task Force on Health	Covered by Germany, Switzerland and recommended contributions
1.2.4	Collect and analyse the evidence on health impacts of ozone and PM (including black carbon)	Updated data on the evidence of the health impacts of ozone and PM	Task Force on Health	Covered by Germany, Switzerland and recommended contributions
1.3	Atmospheric and effects modelling			
1.3.1	Implement gridding system for EMEP domain in finer resolution (0.1° x 0.1° longitude/latitude). Collect and control data reported by countries on main pollutants, heavy metals and POPs. Identify data gaps.	Emission data in grids for pollutants in geographical coordinates (0.1° x 0.1°). (This activity will be developed and implemented gradually)	CEIP	Covered by EMEP mandatory contributions

<i>Workplan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements and/or funding source</i>
	Harmonize data from other sources (the Joint Research Centre of the European Commission, the International Institute for Applied Systems Analysis (IIASA)) with the EMEP system. Perform expert estimates for remaining areas			
1.3.2	Provide air concentrations and deposition fields and source-receptor matrices for the EMEP domain for 2012 and 2013 for: (a) photochemical compounds, sulphur, nitrogen and PM; and (b) POPs and heavy metals	Annual status reports, including model performance analysis EMEP country reports with associated EMEP model data Annual update of the database for status run results, including data on high temporal resolution and source-receptor matrices	MSC-W, MSC-E	Covered by EMEP mandatory contributions and Norway
1.3.3	Collate national EMEP data in unified web presentation. Provide web access to data sets/model calculation results in high temporal resolution (hourly) for use in air quality assessment by Parties	Access to information and data for use in air quality assessment by Parties	MSC-W	Covered by EMEP mandatory contributions and Norway
1.3.4	Evaluate results of the EMEP models in the new grid: model performance, trends and source-receptor relationships	Reports on the new EMEP grid based on cooperative efforts with Parties and the Task Force on Measurements and Modelling, including the assessment of the model performance in the new grid system	MSC-W, MSC-E	Covered by EMEP mandatory contributions
1.3.5	Assessment of pollution levels of heavy metals in selected countries	Results and data published on web	MSC-E, the Netherlands and others	Covered by EMEP mandatory contributions
1.3.6	Global-scale modelling to assess contribution of intercontinental transport and secondary sources to heavy metals and POP pollution in the EMEP domain, in cooperation with the Task Force on Hemispheric Transport of Air Pollution, the Arctic Monitoring and Assessment Programme and the United Nations Environment Programme (UNEP) In-depth analysis of re-emission and wind resuspension, and estimates of	Technical report Results and data published on the web Presentation of results at Task Force on Measurements and Modelling and other scientific meetings	MSC-E	Covered by EMEP mandatory contributions

<i>Workplan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements and/or funding source</i>
	contribution of anthropogenic and secondary sources to mercury and POP pollution in the EMEP domain for 2012–2013			
1.3.7	Facilitate the use of the EMEP model by Parties	Biannual training course for EMEP model users. Present the EMEP model and instructions to facilitate the usage of model products. Provide a platform for a discussion on further EMEP model development with partners and users of EMEP model products Make annual release of EMEP and Global EMEP Multi-media Modelling System (GLEMOS) open source codes	MSC-W, MSC-E	Covered by EMEP mandatory contributions and Norway
1.3.8	Develop further methodologies for modelling. Improve the understanding of processes, parameterizations, emissions and linkages to climate:	Annual note on EMEP model updates based on EMEP intensive campaigns and other scientific information	MSC-W, MSC-E	Covered by EMEP mandatory contributions and Norway
	(a) Investigate the role of dynamic climate-sensitive emissions (nitrogen oxides (NO _x), ammonia, volatile organic compounds (VOCs), methane) for future effectiveness of the Gothenburg Protocol for reducing levels of ozone, PM and nitrogen deposition	Technical report on the climate impact of achieving the Gothenburg Protocol goals	MSC-W	Covered by EMEP mandatory contributions and Norway
	(b) Calculate Short-Lived Climate Pollutant (SLCP) forcing for Gothenburg Protocol implementation. Evaluate uncertainty in black carbon forcing	Technical report on SLCP forcing originating in EMEP domain (for black carbon, methane, ozone)	MSC-W	Covered by EMEP mandatory contributions and Norway
	(c) Investigate the role of interactions and processes to lower the uncertainties of heavy metal and POP emissions and modelling in the EMEP domain	Technical report on: (a) interaction of mercury and POPs with atmospheric aerosols; (b) mercury dispersion in the environment with focus on aqueous ecosystems; (c) model parameterization of wind resuspension and re-volatilization of heavy metals and POPs; and	MSC-E, CEIP, CCC	Covered by EMEP mandatory contributions

<i>Workplan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements and/or funding source</i>
		(d) influence of climate change on secondary emissions of heavy metals and POPs		
1.3.9	Communicate scientific developments, model and methodology improvements, data and products	Develop new web interface for EMEP with better access to EMEP programme products, technical documentation and news Develop and maintain EMEP website in Russian to facilitate access to information by countries in Eastern Europe, the Caucasus and Central Asia Develop near real-time concentration and deposition data on heavy metals and POPs for 2013–2014 (two months' delay)	MSC-W, MSC-E, CCC	Covered by EMEP mandatory contributions and Norway
1.3.10	Perform model simulations to support the assessment of the EU Thematic Strategy on Air Pollution, the Gothenburg Protocol, and the work of the Task Force on Hemispheric Transport of Air Pollution; continue cooperation with modelling efforts supporting the Climate and Clean Air Coalition, the Arctic Council's Arctic Monitoring and Assessment Programme, the Baltic Marine Environment Protection Commission (HELCOM) and the Commission for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Commission), while ensuring that such work complements and does not duplicate efforts in other forums	Database of EMEP simulations and annual explanatory note on model simulations Report progress and new findings to EMEP Steering Body	MSC-W	Covered by EMEP mandatory contributions and Norway HELCOM, OSPAR Commission
1.3.11	Evaluation of the EMEP model and comparison with models developed by the Parties	Report/publication of the results of the first phase of the EuroDelta3 modelling exercise (model evaluation)	Task Force on Measurements and Modelling	Covered by France with contribution from participating Parties
1.3.12	Develop and validate models for the simulation of ecosystem responses. Carry out biomonitoring to detect natural changes, in particular to	Report on dynamic responses on vegetation changes in relation to nitrogen deposition	ICP Integrated Monitoring	Covered by Finland, Sweden and recommended contributions

<i>Workplan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements and/or funding source</i>
	assess integrated effects of air pollutants and climate change			
1.3.13	Develop further dynamic modelling of acidification, nutrient nitrogen and other air pollution-induced ecosystem effects, including the interactions between climate change, land use and biological responses	Annual reports on progress in dynamic modelling	All ecosystem-related ICPs, Joint Expert Group on Dynamic Modelling	Covered by the respective lead countries and Sweden
1.4	Emission inventories			
1.4.1	Compile reported emission data and import into the CEIP database. Evaluate timeliness and completeness of submitted data. Carry out annual quality control of inventories reported under the Convention. Communicate the results to the Parties Update long-term strategy for the review of emission data. Improve/develop new tests for emission checking	Annual status reports to the EMEP Steering Body. Contribution to assessment report(s) Annual country reports, assessment country reports and CEIP/European Environment Agency annual inventory review report with summary information Update of methodology report	CEIP	Covered by EMEP mandatory contributions supported by the European Environment Agency (EEA)
1.4.2	Maintain and improve EMEP/CEIP database system and CEIP website. Adjust the database system (WebDab, RepDab) according to new reporting requirements and reporting formats. Develop/update formats for presentation of emission data. Provide support to Parties and the general public by posting data in real time. Harmonize the EMEP system with the revised UNFCCC common reporting format 2015	Online access to updated information and instructions for reporting, reported data (WebDab), results of emission reviews and other relevant information EMEP database system harmonized with new reporting guidelines Updated RepDab	CEIP	Covered by EMEP mandatory contributions
1.4.3	Manage centralized in-depth review process. Maintain the roster of inventory experts and set up two review teams annually	Annual centralized in-depth review of emission inventories. Ten country review reports with findings and recommendations	CEIP	Covered by EMEP mandatory contributions and Parties
1.4.4	Carry out compilation, quality assurance and quality control of reported gridded and large point source data, and make expert estimates for missing data. Make annual gridding of emission data for main pollutants, heavy metals and POPs and re-gridding for historical	Annually updated web-based data sets of gridded data for use by modellers for current reported year plus update of selected years	CEIP	Covered by EMEP mandatory contributions

<i>Workplan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements and/or funding source</i>
	emissions			
1.4.5	Develop further the EMEP/EEA air pollutant emission inventory guidebook methodologies (including for black carbon). Update the maintenance and improvement plan for the guidebook	Updated maintenance and improvement plan. Updated chapters of the EMEP/EEA air pollutant emission inventory guidebook	Task Force on Emission Inventories and Projections	Subject to availability of resource (no estimate given)
1.4.6	Develop guidance on compiling fine time-scale emissions inventories and pollutant speciation	Guidance chapters for inclusion in the EMEP/EEA air pollutant emission inventory guidebook	Task Force on Emission Inventories and Projections	Subject to availability of resources (\$30,000)
1.4.7	Exchange information on national and international activities on emission inventories and projections at annual Task Force meetings	Annual summary report to the EMEP Steering Body with policy-relevant messages and recommendations	Task Force on Emission Inventories and Projections	Covered by the United Kingdom, Finland and the EU
1.5	Integrated assessment			
1.5.1	Update and further develop the Greenhouse Gas and Air Pollution Interactions and Synergies (GAINS) model with new information on emission data (the 2010 emission inventories), emerging technologies (provided by the Expert Group on Techno-economic Issues/future Task Force on Techno-economic issues), on ecosystem impacts, ozone fluxes and health impacts of NO _x , and downscaling ammonia deposition to protected areas Interact with Parties (meetings, consultations, workshops) on input data to the GAINS model	Technical notes on: (a) downscaling ammonia deposition to protected areas; (b) implementation of new information on ecosystems impacts; (c) improved modelling of ozone fluxes; and (d) implementation of health impacts of nitrogen dioxide	Centre for Integrated Assessment Modelling (CIAM), Task Force on Emission Inventories and Projections Expert Group on Techno-Economic Issues/Task Force on Techno-economic issues, Task Force on Reactive Nitrogen, ICP Modelling and Mapping	Covered by EMEP mandatory contributions and IIASA Covered by EMEP mandatory contributions and IIASA
1.5.2	Analyse implications of EU policy proposals on air quality in the ECE region. Analyse effectiveness of hemispheric control strategies	Two annual status reports	CIAM, Task Force on Integrated Assessment Modelling, Task Force on	Covered by EMEP mandatory contributions and IIASA

<i>Workplan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements and/or funding source</i>
			Hemispheric Transport of Air Pollution	
1.5.3	Increase informal scientific and technical cooperation on global-scale scenarios and issues (climate, nitrogen, energy, transport, food production) in cooperation with, inter alia, the International Panel on Climate Change (IPCC), the International Nitrogen Initiative, UNEP and the Climate and Clean Air Coalition to Reduce Short-Lived Climate Pollutants	Global emission scenarios Technical notes on: (a) cost-effectiveness analysis; (b) impact of changes in hemispheric ozone on cost-effective emission reductions in Europe Emission scenarios for mercury	CIAM	Covered by EMEP mandatory contributions and IIASA
1.5.4	Increase linkages with local-scale air pollution and cost-effective local measures, including co-benefits (healthy lifestyles, reduced congestion and heat stress)	Technical notes on: (a) downscaling of changes of long-range transboundary air pollution to hot spots; (b) analysis of (cost-) effectiveness of local versus national versus international measures; (c) alternative agricultural scenarios	CIAM, Task Force on Integrated Assessment Modelling	Covered by EMEP mandatory contributions and IIASA
1.5.5	Provide support to Parties, in particular countries in Eastern Europe, the Caucasus and Central Asia, and scientific groups, in line with the priorities of the Convention's Long-term Strategy	New annexes to the guidance documents on national nitrogen budgets Contribution to the updated Handbook on emission inventories for black carbon Contribution to the joint EMEP- Working Group on Effects Assessment Report	CIAM, Task Force on Reactive Nitrogen	Covered by EMEP mandatory contributions and IIASA
1.5.6	Communicate and disseminate scientific developments, model and methodology improvements, data and products through the Task Force on Integrated Assessment Modelling website	Web access to data sets, models and results	CIAM, Task Force on Integrated Assessment Modelling	Covered by EMEP mandatory contributions and IIASA
1.5.7	Exchange information on national and international integrated assessment activities at annual Task Force meetings	Annual summary report to the EMEP Steering Body and the Working Group on Strategies and Review on activities and policy-relevant messages and recommendations	Task Force on Integrated Assessment Modelling	Partially covered by Netherlands and Sweden; US\$ 10,000 for travel support to participants from Eastern Europe,

<i>Workplan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements and/or funding source</i>
				the Caucasus and Central Asia
1.5.8	Workshop on linking geographical scales	Report to the Task Force on Integrated Assessment Modelling	Task Force on Integrated Assessment Modelling, CIAM	Host country to be determined
1.6	Hemispheric transport of air pollution			
1.6.1	Develop updated and improved global emissions inventories and future scenarios to serve as the basis for assessments of intercontinental transport of air pollution and possible mitigation strategies	Documented global air pollution emissions mosaic for 2008 and 2010 for use by global and regional modellers Documented set of “benchmark” air pollutant emissions scenarios for 2010–2030	Task Force on Hemispheric Transport of Air Pollution, CIAM, Task Force on Integrated Assessment Modelling	Covered by the United States of America, the EU and in-kind contributions from national experts
1.6.2	Conduct updated and improved simulations of air pollution transport using an ensemble of global and regional models to quantify source-receptor relationships on intercontinental scales	Ensemble of 2008–2010 global and regional modelling base and sensitivity simulations Report/publications summarizing the contribution of regional and extraregional sources to baseline and peak air pollution levels	Task Force on Hemispheric Transport of Air Pollution, MSC-W, MSC-E	In-kind contributions from national experts
1.6.3	Conduct detailed model-to-observation and model-to-model comparisons to better understand the ability of current modelling tools to represent intercontinental transport	Report/publications on insights from model-to-model and model-to-observation comparisons	Task Force on Hemispheric Transport of Air Pollution, MSC-W, MSC-E, CCC	In-kind contributions from national experts
1.6.4	Evaluate the availability of mitigation strategies for air pollution in the Northern Hemisphere. Assess implications of strategies for health, ecosystem and climate impacts	Workshop on impact assessment methods of regional and transported air pollution in cooperation with Working Group on Effects and similar expert groups from South and East Asia Report/publications on improved methods and impacts of mitigation measures affecting regional and extraregional sources	Task Force on Hemispheric Transport of Air Pollution, Working Group on Effects, CIAM, Task Force on Integrated Assessment Modelling	Covered by the United States, the EU and in-kind contributions from national experts
1.6.5	Examine the impact of climate	Report on robust findings from	Task Force on	Covered by the

<i>Workplan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements and/or funding source</i>
	change on the contribution of regional and extraregional sources of air pollution	IPCC and other studies on impacts of climate change on air pollution transport	Hemispheric Transport of Air Pollution	United States, the EU and in-kind contributions from national experts
1.6.6	Develop a distributed network of data repositories and web-enabled tools to facilitate broader participation in the assessment of intercontinental transport of air pollution	Update and further populate the hemispheric transport of air pollution observation (HTAP-Obs) database Complete in 2014 and possibly revise in 2015 HTAP database phase II. Provide information technology infrastructure to hold a harmonized HTAP database. Provide free access to the database Create web-enabled tools to access, visualize, and analyse hemispheric transport of air pollution experiment results	CCC, MSC-W, Task Force on Hemispheric Transport of Air Pollution	Covered by EMEP mandatory contributions, and contributions from Norway, the United States and the EU
1.6.7	Communication of policy-relevant messages concerning intercontinental transport of air pollution and cooperation with other relevant regional and global efforts	Annual report to EMEP Steering Body highlighting new policy-relevant findings. Jointly organized workshops with other regional and global cooperative efforts. Participation in major international conferences	Task Force on Hemispheric Transport of Air Pollution	Covered by the United States, the EU and in-kind contributions from national experts
1.7	Adjustment procedure			
1.7.1	Reviews applications for adjustments to emission reduction commitments or inventories and any supporting documentation submitted by Parties in accordance with Executive Body decisions 2012/3, 2012/4 and 2012/12	Expert assessments submitted to the EMEP Steering Body	CEIP	Covered by voluntary contributions by Parties in-kind or in cash to CEIP
1.7.2	Consider expert assessments of the applications for adjustments to emission inventories Consider expert assessments of the applications for adjustments to emission reduction commitments and make recommendations to the Executive Body	Decision on granting or refusing adjustment by the EMEP Steering Body Recommendations to the Executive Body	EMEP Steering Body	—
1.7.3	Provide support to the implementation of the adjustment procedures under the Gothenburg	Implementation of decisions 2012/3 and 2012/12	Secretariat	—

<i>Workplan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements and/or funding source</i>
	Protocol as laid out in decisions 2012/3 and 2012/12			
1.8	Improve functioning of the Working Group on Effects and EMEP and their subsidiary bodies (ICPs, task forces)			
1.8.1	Foster integrated/thematic assessments, combining the work and output of different subsidiary bodies; identify subject areas for future integrated/thematic assessments	Continue production of integrated/thematic reports, with short summaries (brochures) providing key messages aimed at policy makers and synthesis papers in scientific journals for the science community (improving internal/external communication)	EMEP and Working Group on Effects including ICPs and other subsidiary bodies	—
1.8.2	Develop common standards for all ICPs and a portal approach to enable integrated assessments and to assist the Parties in their implementation of air pollution strategies	Improvement of data access via the web A formal set of agreed common standards		—
1.8.3	Explore ways to combine/merge the activities of some of the ICPs (e.g., ICP Integrated Monitoring, ICP Forests, ICP Waters); improve integrated working and reporting; explore possibility of joint meetings	More effective organization of the work carried out by the ICPs	Working Group on Effects /ICPs	—
1.8.4	Explore a more stable long-term financial mechanism for effects-related activities	Recommendation on a new financial mechanism to the Executive Body	Executive Body Bureau/main subsidiary bodies	—
1.9	Science-policy assessments			
	Assess scientific and policy outcomes within the Convention over the past few decades, including scientific understanding, trends and achievements under the Gothenburg Protocol, and outline future challenges	Comprehensive assessment report in 2016 Executive summary for policy makers in 2016	Working Group on Strategies and Review, Working Group on Effects, EMEP Steering Body	—

2. Policy

15. In line with the priorities set out in the Long-term Strategy for the Convention, the policy-related work in the period 2014–2015 will aim to foster the implementation of the Convention and its three most recent Protocols, and their recent amendments (i.e., the Gothenburg Protocol, the Protocol on Heavy Metals and the Protocol on Persistent Organic Pollutants), throughout the ECE region, with a particular emphasis on the countries in

Eastern and South-Eastern Europe, the Caucasus and Central Asia. It will also aim to address linkages with climate change, biodiversity and other cross-sectoral considerations, notably the linkages between nitrogen and human diet, water, ecosystems and biodiversity. Cooperation will be established and maintained with regional and global organizations addressing cross-sectoral issues, such as biodiversity, ecosystems, agriculture, food and climate change. The implementation of the Convention's protocols will be strengthened through the exchange of information and good practices on policies, legislation and measures, as well as technology. The development and dissemination of guidance documents and materials to increase the knowledge and awareness of best available techniques (BAT), as well as the exploration of new approaches and abatement measures, including the development of an integrated approach for controlling nitrogen pollution, will further support the implementation of the protocols.

Table 2
Policy

<i>Workplan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements and/or funding source</i>
2.1	Exchange of information and review/development of strategies and policies			
2.1.1	Exchange information on national, subregional and regional policies and strategies for the control of major air pollutants, in accordance with article 8 of the Convention, including exchanging experiences and best practices on policies, strategies and measures to implement the Convention's protocols and their amendments at sessions of the Working Group on Strategies and Review. Provide a platform for sharing information on the challenges faced by countries in Eastern and South-Eastern Europe, the Caucasus and Central Asia in acceding to the Convention's three recently amended Protocols and the implementation of their commitments	(a) Collection and analysis of information on strategies and policies for air pollution abatement throughout the ECE region, presented to the Working Group on Strategies and Review (b) Recommendations to the Executive Body for further enhancing the ratification and implementation of the Convention's protocols and amendments to them	Secretariat Working Group on Strategies and Review	US\$ 30,000 —
2.1.2	Synthesize policy-relevant information on the basis of information exchange at sessions of the Working Group on Strategies and Review and information received from scientific bodies and groups; extract messages and identify present and future policy needs	Report on present and future policy needs prepared for Executive Body sessions	Working Group on Strategies and Review	—
2.2	Techno-economic issues			
A.	Development and promotion of guidance documents			

<i>Workplan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements and/or funding source</i>
2.2.1	Develop guidance document on control techniques for emissions of sulphur, NO _x , VOCs and dust (including PM ₁₀ , PM _{2.5} and black carbon) from mobile sources and its translation into Russian	Draft guidance document, including executive summary submitted for adoption by the Executive Body	Expert Group on Techno-Economic Issues/Task Force on Techno-economic issues	US\$ 47,000 in addition to partial coverage from contribution by France and the European Commission
2.2.2	Workshops in 2014–2015 to promote awareness and understanding, in particular in countries of Eastern Europe, the Caucasus and Central Asia, of: (a) the Guidance document on control techniques for emissions of sulphur, NO _x , VOCs and particulate matter (including PM ₁₀ , PM _{2.5} and black carbon) from stationary sources; and (b) the Guidance document on control techniques for emissions of sulphur, NO _x , VOCs and dust (including PM ₁₀ , PM _{2.5} and black carbon) from mobile sources	Increased awareness of the control techniques for emissions from stationary sources and mobile sources, in particular in countries of Eastern Europe, the Caucasus and Central Asia	Expert Group on Techno-Economic Issues/Task Force on Techno-economic issues	US\$ 30,000 in addition to partial coverage from contribution by France
2.2.3	Workshops in 2014–2015 to promote: (a) The amended Protocol on Heavy Metals and its new Guidance document (ECE/EB.AIR/116), with a focus on implementation and flexibility for countries of Eastern Europe, the Caucasus and Central Asia; (b) BAT for controlling emissions of POPs from major stationary sources	Increased capacity to apply BAT to implement the Protocol on Heavy Metals (2014) Increased capacity to apply BAT to implement the Protocol on POPs (2015)	Task Force on Heavy Metals (2014) Expert Group on Techno-Economic Issues/Task Force on Techno-economic issues	Covered from contributions by Norway and Germany US\$ 15,000
B. Collection and analysis of data and further development of methodologies				
2.2.4	Develop an update to the mandate of the Expert Group on Techno-economic Issues	Establish a Task Force on Techno-economic Issues	Expert Group on Techno-Economic Issues/Working Group on Strategies and Review	—

<i>Workplan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements and/or funding source</i>
2.2.5	Develop a techno-economic tool as an evolution of the methodologies for evaluating costs in the Large Combustion Plants Sector	Availability of tools for estimating the costs of implementing BAT and the requirements of the Gothenburg Protocol in different sectors	Expert Group on Techno-Economic Issues/Task Force on Techno-economic issues	Covered by France
2.2.6	Analyse the available Gothenburg GAINS scenarios to estimate the technical upgrade to be implemented by countries of Eastern Europe, the Caucasus and Central Asia in order to comply with the Gothenburg Protocol. Organize workshop/bilateral consultations for verification of the analysis and estimates with countries of the subregion	Analyses/estimates of the technical upgrade needed for compliance by target countries with the Gothenburg Protocol, verified with the countries	Expert Group on Techno-Economic Issues/Task Force on Techno-economic issues	US\$ 8,000 in addition to partial coverage from contribution by Italy
2.2.7	Collect and provide up-to-date data for cost modelling for BAT; conduct workshop with IIASA experts as necessary	Updated data for electricity production and iron and steel sectors provided to CIAM for inclusion in GAINS Updated cost data for BAT reference documents for selected sectors (e.g., electricity)	Expert Group on Techno-Economic Issues/Task Force on Techno-economic issues	Covered by France
2.2.8	Examine costs and benefits of ammonia emission abatement measures to improve the understanding of health-, climate- and environment-related linkages for nitrogen	Cost data on the effectiveness of ammonia emission abatement measures provided to CIAM	Task Force on Reactive Nitrogen	Covered by the United Kingdom
2.2.9	Annual Task Force meetings to exchange information on techno-economic issues and network	Meeting reports to the Working Group on Strategies and Review and with policy-relevant messages and recommendations	Expert Group on Techno-Economic Issues/Task Force on Techno-economic issues	US\$ 8,000 (travel) in addition to partial coverage from contribution by France and Italy
2.2.10	Explore abatement techniques for further reducing heavy metals emissions ^a	Report to the Working Group on Strategies and Review	Expert Group on Techno-Economic Issues/Task Force on Techno-economic issues as of 2015	Covered by France
2.2.11	Explore the new approaches and	Report to the Working Group	Expert Group on	US\$ 30,000

<i>Workplan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements and/or funding source</i>
	abatement techniques for further reducing POPs emissions	on Strategies and Review	Techno-Economic Issues/Task Force on Techno-economic issues as of 2015	
2.2.12	Serve as a regional clearinghouse of control technology information for primary emissions of NO _x , sulphur dioxide, VOCs and PM, including SLCPs, heavy metals and POPs	Public availability of information on primary emissions of NO _x , sulphur dioxide, VOCs and PM, including SLCPs, heavy metals and POPs	Expert Group on Techno-Economic Issues/Task Force on Techno-economic issues	Covered by France
2.3	Nitrogen			
A.	Development and promotion of guidance and reference documents			
2.3.1	Prepare the publication on ammonia emission mitigation and disseminate	Publication of guidance document on preventing and abating ammonia emissions from agricultural sources (ECE/EB.AIR/120, forthcoming)	Task Force on Reactive Nitrogen	Covered by the United Kingdom
2.3.2	Prepare and disseminate the publication on nitrogen budgets with its annexes. Organize workshop to improve awareness and understanding	Publication of guidance document on national nitrogen budgets (ECE/EB.AIR/119); improved understanding of national nitrogen budgets	Task Force on Reactive Nitrogen	US\$ 25,000 (workshop) in addition to coverage of publication by the United Kingdom
2.3.3	Update the ECE Framework Code for Good Agricultural Practice for Reducing Ammonia (EB.AIR/WG.5/2001/7), including taking account of the relevant EU BAT Reference (BREF) documents	Executive Summary with key messages and update submitted to the Executive Body in 2014, extended version of publication available in 2015	Task Force on Reactive Nitrogen	Covered by the Canada, the Czech Republic, Denmark, Germany and the United Kingdom
B.	Collection and analysis of data; development and refinement methodologies and new approaches			
2.3.4	Develop multi-pollutant approaches Organize workshop	Draft report on integrated approaches for nitrogen emission abatement policy	Task Force on Reactive Nitrogen	US\$ 25,000 (workshop in addition to development of document by Denmark and the United Kingdom and in-kind contribution by authors)
2.3.5	Continue to provide technical information on making and using	Draft indicators submitted to	Task Force on Reactive	Covered by the United Kingdom

<i>Workplan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements and/or funding source</i>
	nitrogen budgets and estimating nitrogen emissions	the Executive Body in 2015 Framework for establishing nitrogen budgets, nitrogen compounds and nitrogen-use efficiency submitted to EMEP	Nitrogen	with support from CIAM
2.3.6	Collect and assess information from national focal points regarding their experiences in developing and implementing an integrated approach at Task Force meetings and workshop(s) on implementation of the Gothenburg Protocol, in partnership with other regional nitrogen organizations	Workshop and annual Task Force reports to the Working Group on Strategies and Review with policy-relevant messages and recommendations	Task Force on Reactive Nitrogen	US\$ 50,000 (attendance of representatives/experts from Eastern Europe, the Caucasus and Central Asia and workshop) in addition to partial coverage from contribution by Denmark and the United Kingdom
C. Outreach to other communities, regions and cooperation with other organizations				
2.3.7	International framework for nitrogen management linking Convention activities with other conventions at the global scale, including understanding of linkages of air, water, climate and biodiversity targets in liaison with the UNEP Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA) and the Global Partnership on Nutrient Management	Input to the implementation of a global research programme on the nutrient cycle, in cooperation with GPA, positioning ECE analysis in the global context	Task Force on Reactive Nitrogen	covered by contribution from the Global Environment Facility (GEF) ^b
2.3.8	Develop and apply, in relation to workplan item 1.2.1., indicators of biodiversity targets in cooperation with the Convention on Biological Diversity (CBD) and the International Nitrogen Initiative	Nitrogen indicators in relation to biodiversity provided to CBD for inclusion in Aichi target-monitoring process	Task Force on Reactive Nitrogen	Covered by contribution from GEF ^b
2.3.9	Provide nitrogen-use indicators (e.g., nitrogen-use efficiency) related to multiple indicators of environmental quality, including water quality	Nitrogen-use indicators for selected transboundary water basins provided as a contribution to the study on the water-food-energy-ecosystem nexus to be prepared in the framework of the ECE	Task Force on Reactive Nitrogen	Covered by contribution from GEF ^b

<i>Workplan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements and/or funding source</i>
		Convention on the Protection and Use of Transboundary Watercourses and International Lakes		
2.3.10	Provide technical information on the effects of human diets on nitrogen use and emissions	European Nitrogen Assessment special report on the relationship of human diet, the nitrogen cycle and environmental impacts in 2014,	Task Force on Reactive Nitrogen	Partially covered from a contribution by the United Kingdom, in addition to in-kind contribution from the Netherlands and other authors

^a Requires the provision of relevant experts.

^b Subject to funding availability.

3. Compliance

16. In accordance with the Long-term Strategy, “the work of the Implementation Committee will be given a very high priority and the compliance mechanism will be improved” (para. 16 (b)). Any submission or referral made under paragraph 3 (b) of the Implementation Committee’s functions (ECE/EB.AIR/113/Add.1, decision 2012/25, annex) will be dealt with as a priority. In this regard, the Committee will continue to review the progress made by the Parties in response to decisions taken by the Executive Body based upon the Committee’s recommendations, as well as the need for possible additional measures for dealing with non-compliance on a case-by-case basis. Further, in accordance with its functions, the Implementation Committee will consider, as necessary, systemic issues relating to compliance that have been identified. On the basis of information provided by the secretariat, the Committee will evaluate the reporting by Parties on their emission and projection data. The Committee will continue its dialogue with appropriate bodies and experts, with a focus on improving communication with the technical bodies under the Convention.

Table 3
Compliance

<i>Workplan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements and/or funding source</i>
3.1	Review compliance with reporting obligations: periodic review of compliance with Parties’ reporting obligations, based on emission and projection data submitted to EMEP and available in the WebDab	(a) Overview tables on status of reporting, for each of the seven protocols;	CEIP	Covered by EMEP mandatory contributions

<i>Workplan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements and/or funding source</i>
	emission database	(b) Notes on reporting obligations submitted to the Implementation Committee twice a year; draft recommendations on reporting for consideration by the Implementation Committee	Secretariat	Regular budget
		(c) Review of information submitted by the secretariat; recommendations submitted to the Executive Body	Implementation Committee	—
3.2	Consider submissions and referrals: consideration of any submission or referral of possible non-compliance by an individual Party with any of its obligations under a given protocol	(a) Emission data trend tables and updates provided to the secretariat	CEIP	Covered by EMEP mandatory contributions
		(b) Analysis of information provided by CEIP; communication with Parties in potential non-compliance; referrals; note on emission exceedances by Parties; overview of communications with Parties submitted to the Implementation Committee twice a year; correspondence with Parties	Secretariat	Regular budget
		(c) Submissions and referrals by the secretariat reviewed at two annual meetings; decisions on additional information to be requested from Parties in potential non-compliance; recommendations on non-compliance submitted to the Executive Body	Implementation Committee	—
3.3	Prepare an annual report on the Committee's activities to the Executive Body	Annual report with background, considerations and recommendations on compliance cases under review	Implementation Committee	—
3.4	Provide support to the Implementation Committee, where needed	Expert advice on selected issues provided where needed	All technical bodies, and in particular, the Task Force on Emission Inventories and Projections, the	—

<i>Workplan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements and/or funding source</i>
			Expert Group on Techno-Economic Issues/ Task Force on Techno-economic issues and the Task Force on Reactive Nitrogen	
3.5	Review recommendations contained in Implementation Committee report	Decisions on non-compliance and related issues	Executive Body	—

4. Capacity-building to promote ratification and implementation in Eastern and South-Eastern Europe, the Caucasus and Central Asia

17. A viable future for the Convention depends upon positive and vigorous participation by the Parties in all parts of the region, and on ensuring its extensive geographical coverage. Capacity-building measures and activities will aim to achieve increased ratification and implementation of and compliance with the three amended Protocols and “more active involvement of a greater number of Parties in the work of the Executive Body and the subsidiary bodies, including in the work of their bureaux, as well as in the technical and scientific groups” (Long-term Strategy, paras. 16 (a)–(n)) and 17 (a)). The activities will also support the implementation of the revised Action Plan for Eastern Europe, the Caucasus and Central Asia (ECE/EB.AIR/WG.5/2007/17). They will also aim to further raise the political profile of the Convention in countries of Eastern Europe, the Caucasus and Central Asia, and to raise awareness among decision makers of those countries on the environmental and health effects of air pollution and on pollution abatement measures and their high benefit-to-cost ratio.

Table 4

Capacity-building to promote ratification and implementation in Eastern and South-Eastern Europe, the Caucasus and Central Asia

<i>Workplan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements and/or funding source</i>
4.1	Promote ratification and implementation of the Convention and the EMEP Protocol, the Protocol on POPs, the Protocol on Heavy Metals and, as appropriate, the Gothenburg Protocol through: (a) capacity-building in general; (b) further assessments of the barriers to ratification, for example emission projections up to 2020 and progress in implementation of	National Action Plans in countries of Central Asia; identification of barriers to ratification and ways to address them	Secretariat advised by recipient countries and contributing countries	US\$ 200,000 (indicative) partially covered from contributions by the EU, Norway and Switzerland
		Cost-benefit analyses	Secretariat advised by recipient	US\$ 50,000 (indicative) partially covered

<i>Workplan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements and/or funding source</i>
	protocols; (c) workshops and advisory services to support the development of National Action Plans for the ratification and implementation of the Convention's protocols, cost-benefit analysis for ratification and implementation and identification of emission reduction targets and base year emission levels	Setting of emission reduction targets and base year emission levels for countries in the region	countries and contributing countries Secretariat advised by recipient countries and contributing countries	from contributions by the EU and Norway US\$ 50,000 (indicative) partially covered from contributions by the EU and Norway
4.2	Continue the work in accordance with Executive Body decision 2010/17, and in particular activities aimed at implementation of the workplan of the Coordinating Group on promotion of actions towards implementation of the Convention in Eastern Europe, the Caucasus and Central Asia (Coordinating Group)	Report on progress to the Executive Body	Coordinating Group	—
4.3	Increase cooperation and information exchange between the countries and the EMEP scientific centres to expand emission inventories, monitoring and modelling activities in the region	(a) Collection, processing and reporting of monitoring data in accordance with the EMEP monitoring strategy (b) Emission inventories developed in countries of Eastern Europe, the Caucasus and Central Asia in accordance with the Guidelines for estimating and reporting emission data under the Convention (ECE/EB.AIR/97) and the EMEP/EEA air pollutant emission inventory guidebook	Secretariat, EMEP centres Secretariat advised by recipient countries and contributing countries, EMEP centres	US\$ 100,000 (indicative) partially covered from contributions by the EU, Norway and Switzerland US\$ 150,000 (indicative) partially covered from contributions by the EU, Norway and Switzerland
4.4	Explore the possibilities to launch the project on training and bilateral assistance on developing capacity-building in emission inventories, with participation of technical experts from Belarus, for: (a) Countries of Central Asia and Azerbaijan;	Emission inventories developed in the countries	Secretariat advised by recipient countries and contributing countries, CEIP	— To be defined, covered by contribution by Switzerland

<i>Workplan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements and/or funding source</i>
	(b) Countries in Eastern Europe and the Caucasus			To be defined
4.5	Strengthen the participation of countries in Eastern and South-Eastern Europe, the Caucasus and Central Asia in the work of the Executive Body and its subsidiary bodies by providing travel support	Participation of representatives of countries with economies in transition in the sessions of the Executive Body, its subsidiary bodies and other relevant meetings	Secretariat	US\$ 300,000 (indicative) partially covered from contributions by the EU, Norway and Switzerland
4.6	Support the countries in Eastern Europe, the Caucasus and Central Asia in implementing the Gothenburg Protocol through a workshop on application of low-emission approaches	Approaches for managing reactive nitrogen in industry and agriculture developed in the context of local conditions; barriers to improved implementation identified	Task Force on Reactive Nitrogen	Covered by contribution from GEF ^a
4.7	Workshop on the transboundary transport of heavy metals and POPs in countries of Eastern Europe, the Caucasus and Central Asia	Information to support ratification and implementation of the Protocols on POPs and Heavy Metals	MSC-E/ Coordinating Group/secretariat	Covered by EMEP mandatory contributions, travel expenses covered by participating Parties, extrabudgetary resources of the secretariat
4.8	Support the continuous development of methods and data for effects-based indicators, including a workshop	Approaches for the use of specific effects-based indicators for policy support	ICP Modelling and Mapping and other ICPs	US\$ 40,000 (indicative)

^a Subject to funding availability.

5. Communication and outreach

18. In accordance with the Long-term Strategy for the Convention, communication activities will be undertaken to highlight the work and benefits of the Convention. It sets out that “the bodies under the Convention should also actively contribute to an extensive and user-friendly communication strategy and system that highlights the work and benefits of the Convention. This communication strategy will in particular help to increase the visibility of the Convention and raise political awareness of pollution issues in countries of Eastern Europe, the Caucasus and Central Asia and South-Eastern Europe” (para. 16 (k)). Outreach activities will be undertaken to maintain the visibility of the Convention on the international scene, to foster cooperation between regional agreements around the world, and as a bridge between regional and global action. Cooperation with other regions and forums on intercontinental air pollution issues will be pursued.

19. Table 5 below does not repeat the communication/outreach tasks specifically assigned to any of the technical or subsidiary bodies and, as such, incorporated as items under the sections on Science and Policy in the workplan.

Table 5

Communication and outreach

<i>Workplan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements and/or funding source</i>
5.1	Internal communication			
	Improve internal communication, in particular within the Eastern Imp Improved operation of the Convention			
5.1.1	Improve internal communication, in particular within the Eastern Europe, the Caucasus and Central Asia subregion, to ensure efficient operation of the Convention, specifically to assess additional website needs by subsidiary bodies and to review current formal and informal communication practices	Improved operation of the Convention List of possible additional websites and related communication needs with cost estimates	Secretariat	—
5.2	External communication			
5.2.1	Raise public awareness of the Convention and overall visibility of air pollution issues throughout the ECE region and beyond through press releases, publication of leaflets, articles and other materials, as necessary; focus on production of electronic versions (considering resource constraints on printing); make use of social media platforms where appropriate Disseminate relevant information provided by the Convention's scientific bodies, in particular non-technical summaries with clear conclusions, recommendations and interesting facts, also for external audiences Manage the Convention's website as the main channel for communications for communication to the public; improve the Convention's website (within formal ECE limitations) in this respect; add	Increased availability of communication materials and increased public awareness about the Convention; availability of information on air pollution issues in a user-friendly manner on the website	Secretariat	—

<i>Workplan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements and/or funding source</i>
	non-technical content understandable to the general public Update the Convention logo and develop rules for its use			
5.2.2	Raise awareness on air pollution, its environmental and health effects, as well as on abatement measures, the Convention and its protocols, among the countries of Eastern Europe, the Caucasus and Central Asia through translation of relevant documentation and communication materials into Russian (priorities to be established by the Coordinating Group), and the further development and maintenance of the website in Russian, as relevant	Availability of information materials in Russian; increased awareness of the Convention in countries of the subregion	Secretariat/ Coordinating Group	US\$ 60,000 (indicative) partially covered from contributions by the EU, Norway and Switzerland
5.3	Financing communication strategy			
	Provide a cost estimate of all extrabudgetary items with respect to the communication recommendations as proposed by the ad hoc group of experts in informal document No. 10 prepared for the thirty-second session of the Executive Body	Note on cost estimates of all extrabudgetary items and proposals for possible addition of communication items to the Convention workplan	Secretariat/ Executive Body Bureau	—
5.4	Outreach			
5.4.1	Compile list of existing outreach activities and formal links. Identify additional opportunities that could be pursued.	Report summarizing existing outreach activities with identification of subsidiary bodies engaged and possible additional opportunities	Secretariat/ main subsidiary bodies/ Executive Body Bureau	—
5.4.2	Contact other regional networks and agreements to determine if and to what extent they are interested in collaborating with the Convention on common goals, and with due consideration of a possible enlarged cooperation at the strategic/policy level with other regions and the	Report summarizing the information gathering exercise, outlining areas in which an interest in (enhanced) collaboration has been expressed	Executive Body Bureau/ secretariat	—

<i>Workplan item</i>	<i>Activity description/objective</i>	<i>Expected outcome/deliverable</i>	<i>Lead body(ies)</i>	<i>Resource requirements and/or funding source</i>
	global community in the longer term			
5.4.3	<p>Explore opportunities for scientific cooperation, maintain or establish contacts, as relevant, with other regional and global organizations, in particular those addressing issues of importance for air quality (e.g., the World Health Organization, WMO, UNEP, UNFCCC, IPCC, the World Climate Research Programme, the International Maritime Organization, the Stockholm Convention on Persistent Organic Pollutants, the Minamata Convention on Mercury, CBD, the Arctic Council, the Acid Deposition Monitoring Network in East Asia (EANET) and the Malé Declaration on Control and Prevention of Air Pollution and its Likely Transboundary Effects for South Asia)</p> <p>Help develop links for collaboration and sharing of data and information</p>	<p>Cooperation with other international organizations, leading to improved understanding, information or data exchange</p> <p>Initiate the pathway for the development of special report on linkages between air pollution and climate change that would engage the climate change community (air quality part in the IPCC report)</p>	Secretariat/ ad hoc group/ technical bodies	US\$ 15,000 (travel)
5.4.4	Reach out to other regions through participation in key regional and international events and processes, including the Global Atmospheric Pollution Forum, to raise awareness and foster cooperation	Improved awareness of the Convention's role in addressing regional air pollutants and lessons from that experience that could be used by international efforts in other regions or contexts	Secretariat	US\$ 15,000 (travel)
5.4.5	Promote awareness of the Convention, as relevant, with other ECE multilateral environmental agreements and programmes	Improved awareness by other ECE programmes about the Convention and the linkages between air pollution and relevant cross-sectoral issues	Secretariat	—

Annex

Template for reporting by task forces and expert groups on implementation of the workplan

1. Name of Task Force/Expert Group:
2. Period covered:
3. Chairs and Co-Chairs:
4. Members (approximate number and number of countries)
5. Meetings held in period covered (date(s), venue)
6. Outcomes/deliverables during period by item indicated in the workplan (ongoing activities, see ECE/EB.AIR.109/Add.2) and the Long-term Strategy (see ECE/EB.AIR/106/Add.1):

Results/impact of the activities carried out

7. Expected outcomes/deliverables over next period by item indicated in the workplan and longer term, in case known:
 8. Policy relevant issues, findings and recommendations — for the attention of the subsidiary bodies, the Executive Body, other relevant bodies and the general public:
 9. Issues for the attention/advice of other groups/task forces or subsidiary bodies, notably with regard to synergies and possible joint approaches or activities:
 10. Recommendations to further strengthen implementation and ratification of Convention Protocols in Eastern and South-Eastern Europe, the Caucasus and Central Asia:
 11. Scientific and technical cooperation activities with relevant international bodies:
 12. Relevant scientific findings/highlights:
 13. Additional comments, lessons learned:
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