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Draft 2014–2015 workplan for the implementation
of the Convention

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Summary

At its thirty-first session in December 2012, the Executive Body for the Convention on Long-range Transboundary Air Pollution proposed that a draft 2014–2015 workplan be prepared by the Bureau of the Executive Body with the secretariat (ECE/EB.AIR/113, para. 47).

The present document sets out the draft 2014–2015 workplan for the implementation of the Convention, which was prepared by the Executive Body Bureau and the secretariat, and incorporating comments by the subsidiary bodies. The workplan translates the vision, objectives and strategic approaches set in out in the Long-term Strategy for the Convention (see 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.

At its thirty-second session, the Executive Body is expected to consider this draft, agree on a final version, and adopt a workplan for the Convention for 2014–2015.

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Introduction

- 1. At its thirty-first session in December 2012, the Executive Body for the Convention on Long-range Transboundary Air Pollution proposed that a draft 2014–2015 workplan be prepared by the Bureau with the secretariat (ECE/EB.AIR/113, para. 47). In response to this request, the secretariat prepared a first draft outline of the 2014–2015 workplan for the consideration by the Bureau at its meeting on 3 May 2013. The "policy" and "compliance" related parts of the draft workplan were also considered by the Working Group on Strategies and Review at its fifty-first session (Geneva, 30 April–3 May 2013), and the Implementation Committee at its thirty-first session (Geneva, 22–24 May 2013), respectively.
- 2. Following these meetings, the secretariat was requested to produce a revised draft for circulation to all Parties. Parties were requested to send their comments on the revised version by 20 August 2013. These comments have been incorporated into the present draft.
- 3. The outcome of the discussion on the recommendations by the ad hoc group of experts on the Action Plan for the Implementation of the Long-term Strategy for the Convention (ECE/EB.AIR/2012/15) at the Working Group on Strategies and Review fifty-first session have also been taken into account in the preparation of this revised draft. The workplan will be further elaborated following its review by the Bureau and Parties, and with the input from all the respective bodies. Substantive details received from the scientific bodies have now been integrated into the enclosed version, following agreement on its proposed structure. Due consideration has been given to the comments by several representatives of the Parties that the length of the workplan should be shortened and that some sections should be presented in a more succinct, aggregated manner.
- 4. 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 (see 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.
- 5. 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. This approach 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).
- 6. 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".

- 7. 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.

1. Science

- 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 address 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.
- 9. The main goal of atmospheric and effects monitoring (table 1, item 1.1) is to provide relevant data and to analyze 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.
- 10. 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.
- 11. 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.

- 12. 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. Estimated emissions and their projections provide direct input to integrated assessment modelling and a basis for the review of compliance.
- 13. With regard to the adjustment procedure (table 1, item 1.7), it is recalled that Parties to the Protocol to Abate Acidification, Eutrophication and Ground-level Ozone (Gothenburg Protocol) adopted decision 2012/3 setting out a procedure for adjustments to emission reduction commitments or inventories for the purpose of comparing total national emissions with them, along with decision 2012/4 on the provisional application of the procedure and decision 2012/12 on the Guidance for adjustments under the Gothenburg Protocol to emission reduction commitments or to inventories for the purposes of comparing total national emissions with them. Activities under this workplan item will focus on supporting the implementation of this procedure by Parties, including by reviewing applications for the procedure and considering expert assessments of these applications.
- 14. 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.
- 15. 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.
- 16. Work on science-policy messages/recommendations (table 1, item 1.8) 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.

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

Table 1 **Science**

Workplan item	Activity description/objective	Expected outcome/deliverable	Lead body(ies)	Resource requirements and/or funding source
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
1.1.2	Revise and develop further the methodologies to be applied in monitoring atmospheric composition change; update the <i>EMEP manual for sampling and chemical analysis</i> , for prioritized species	Updated EMEP manual for sampling and chemical analysis	CCC	Covered by EMEP mandatory 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	Online access to data via CCC website database (http://ebas.nilu.no/) in downloadable format	CCC	Covered by EMEP mandatory contributions and Norway
	Provide training and assistance to Parties on data reporting, metadata documentation and dissemination	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		

Workplan item	Activity description/objective	Expected outcome/deliverable	Lead body(ies)	Resource requirements and/or funding source
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	CCC Meteorological Synthesizing Centre-East (MSC-E)	Covered by EMEP mandatory contributions and Norway
		websites	Meteorological Synthesizing Centre-West (MSC-W)	
			Task Force on Measurements and Modelling	
1.1.5	Ensure strong links with scientific groups involved in level II and level III measurement activities, and	Publication of peer-reviewed papers from EMEP intensive measurement periods	CCC	Covered by EMEP mandatory contributions and
	implementation of intensive observation periods	Plan for the intensive measurement campaign and coordination of its implementations		Norway
1.1.6	oriented monitoring activities Facilitate linkages between EMEP monitoring obligations and other	•	CCC	Covered by EMEP mandatory contributions and Norway
	monitoring obligations with complementary objectives, including linkages with activities on local air quality, short-lived climate forcers and long-lived greenhouse gases	Report on the task and inform Parties on relevant findings and actions needed or taken		
1.1.7	Foster outreach activities	Report on relevance,	CCC	Covered by EMEP
	Contribution to and visibility in a variety of different reports from other organizations, bodies, programmes and projects	significance and lessons learned from participation in and interaction with monitoring efforts and data assessments external to the Convention		mandatory contributions and Norway
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

Workplan item	Activity description/objective	Expected outcome/deliverable	Lead body(ies)	Resource requirements and/or funding source
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
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 the Working Group on Effects and to the Executive Body	International Cooperative Programmes (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 on recent findings under the Working Group on Effects and their implications for policy	Annual joint reports 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	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	International Cooperative Programme on Effects of Air Pollution on Materials, including Historic and Cultural Monuments (ICP Materials)	Covered by Sweden, Italy and recommended contributions

Workplan item	Activity description/objective	Expected outcome/deliverable	Lead body(ies)	Resource requirements and/or funding source
1.1.13	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 Acidification of Rivers and Lakes (ICP Waters)	Covered by Norway and recommended contributions
1.1.14	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 (ii) impact of air pollution and climate change on forest growth (iii) impact of nitrogen deposition on tree diseases (iv) 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
1.1.15	Assess the impact of heavy metals on forest soils	Report on the impact of heavy metals on forest soils	ICP Forests	Covered by Germany and recommended
	Comparison with impact from the European moss survey			contributions
1.1.16	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; (b) 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
1.1.17	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

Workplan item	Activity description/objective	Expected outcome/deliverable	Lead body(ies)	Resource requirements and/or funding source
1.1.18	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	Covered by the United Kingdom and recommended contributions
1.1.19	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 (ICP Integrated Monitoring)	Covered by Finland, Sweden and recommended contributions
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 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 sessions of the 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 the Netherlands, France 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 Sweden, Finland 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

Workplan item	Activity description/objective	Expected outcome/deliverable	Lead body(ies)	Resource requirements and/or funding source
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 area 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. Harmonize data from other sources (the Joint Research Centre (JRC) of the European Commission, the International Institute for Applied Systems Analysis (IIASA)) with the EMEP system. Perform expert estimates for remaining areas	Emission data in grids for pollutants in geographical coordinates (0.1° x 0.1°). (This activity will be developed and implemented gradually)	Centre on Emission Inventories and Projections (CEIP)	Covered by EMEP mandatory contributions
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,	Annual status reports, including model performance analysis		Covered by EMEP mandatory contributions and Norway
		EMEP country reports with associated EMEP model data	MSC-E	
	sulphur, nitrogen and PM; and (b) POPs and heavy metals	Annual update of the database for status run results, including data on high temporal resolution, and source-receptor matrices		
1.3.2 bis	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
1.3.2 ter	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

Workplan item	Activity description/objective	Expected outcome/deliverable	Lead body(ies)	Resource requirements and/or funding source
1.3.3	Assessment of pollution levels of	Results and data published on	MSC-E	Covered by EMEP mandatory contributions
	heavy metals in selected countries	web	The Netherlands and others	
1.3.4	Global-scale modelling to assess contribution of the 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)	Technical report Results and data published on the web Presentation of results at the Task Force on Measurements and Modelling and other scientific meetings	MSC-E	Covered by EMEP mandatory contributions
	In-depth analysis of re-emission and wind resuspension and estimates of contribution of anthropogenic and secondary sources to mercury and POP pollution in the EMEP domain for 2012–2013			
1.3.5	Facilitate the use of the EMEP model by Parties	Bi-annual training course for	MSC-W	Covered by EMEP
		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	MSC-E	mandatory contributions and Norway
		Make annual release of EMEP and Global EMEP Multi-media Modeling System (GLEMOS) open source codes		
1.3.6	Develop further methodologies for	Annual note on EMEP model	MSC-W	Covered by EMEP
	understanding of processes,	updates based on EMEP intensive campaigns and other scientific information	MSC-E	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	Technical report on SLCP forcing originating in EMEP	MSC-W	Covered by EMEP mandatory

Workplan item	Activity description/objective	Expected outcome/deliverable	Lead body(ies)	Resource requirements and/or funding source
	Gothenburg Protocol implementation. Evaluate uncertainty in black carbon forcing	domain (for black carbon, methane, ozone)		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 (d) influence of climate change on secondary emissions of heavy metals and POPs pollutants	MSC-E CEIP CCC	Covered by EMEP mandatory contributions
1.3.7	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	MSC-W MSC-E CCC	Covered by EMEP mandatory contributions and Norway
		Develop near real-time concentration and deposition data on heavy metals and POPs for 2013–2014 (two months' delay)		
1.3.8	Perform model simulations to support the assessment of the EU Thematic Strategy on Air Pollution, the Gothenburg Protocol, the work of the Task Force on the Hemispheric Transport of Air Pollution, the United Nations SLCP reduction policy and to inform the Arctic Council, the Baltic Marine Environment Protection Commission (HELCOM) and the Commission for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Commission)	Database of EMEP simulations and annual explanatory note on model simulations Technical report on estimates and analysis of transboundary pollution to the Arctic	MSC-W	Covered by EMEP mandatory contributions and Norway OSPAR Commission HELCOM
1.3.8 bis	Evaluation of the EMEP model and comparison with models developed	Report/publication of the results of the first phase of the EURODELTA3 modelling	Task Force on Measurements	Covered by France with contribution from participating

Workplan item	Activity description/objective	Expected outcome/deliverable	Lead body(ies)	Resource requirements and/or funding source
	by the Parties	exercise (model evaluation)	and Modelling	Parties
1.3.9	Develop and validate models for the simulation of ecosystem responses. Carry out biomonitoring to detect natural changes, in particular to assess integrated effects of air pollutants and climate change	Report on dynamic responses on vegetation changes in relation to nitrogen deposition	ICP Integrated Monitoring	Covered by Finland, Sweden and recommended contributions
1.3.10	Develop further dynamic modelling of acidification, nutrient nitrogen	on, nutrient nitrogen dynamic modelling related ICPs	All ecosystem- related ICPs	Covered by the respective lead countries and Sweden
	and other air pollution-induced ecosystem effects, including the interactions between climate change, land use and biological responses		Joint Expert Group on Dynamic Modelling	
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	Annual status reports to the EMEP Steering Body. Contribution to assessment report(s) Annual country reports, assessment country reports and CEIP/European Environment	CEIP	Covered by EMEP mandatory contributions supported by EEA
	Update long-term strategy for the review of emission data. Improve/develop new tests for emission checking	Agency (EEA) annual inventory review report with summary information Update of methodology report		
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	Annually updated web-based data sets of gridded data for use by modellers for current	CEIP	Covered by EMEP mandatory

Workplan item	Activity description/objective	Expected outcome/deliverable	Lead body(ies)	Resource requirements and/or funding source
	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 emissions	reported year plus update of selected years		contributions
1.4.5	Develop further the EMEP/EEA air pollutant emission inventory guidebook methodologies. 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	Technical notes on: (a) downscaling ammonia deposition to protected areas; (b) implementation of new information on ecosystems	Centre for Integrated Assessment Modelling (CIAM)	Subject to availability of resources (\$30,000) Covered by the United Kingdom, Finland and the E Covered by EME mandatory contributions and IIASA
	inventories), emerging technologies (provided by the Expert Group on Techno-economic Issues/future Task Force on Techno-economic issues), on ecosystem impacts, ozone fluxes	impacts; (c) improved modelling of ozone fluxes; and (d) implementation of health impacts of nitrogen dioxide	Task Force on Integrated Assessment Modelling	
	and health impacts of NO _x , and downscaling ammonia deposition to protected areas		Expert Group on Techno-economic Issues/Future Task Force on	
	Interact with Parties (meetings, consultations, workshops) on input data to the GAINS model		Techno-economic issues	
			Task Force on Reactive Nitrogen	
			ICP Modelling and Mapping	

Workplan item	Activity description/objective	Expected outcome/deliverable	Lead body(ies)	Resource requirements and/or funding source
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	Covered by EMEP mandatory contributions and IIASA
			Task Force on Hemispheric Transport of Air Pollution	
1.5.3	Increase linkages with global-scale scenarios and issues (climate, nitrogen, energy, transport, food production) in cooperation with, inter alia, the Intergovernmental 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 (congestion, healthy lifestyles, reduced 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

Workplan item	Activity description/objective	Expected outcome/deliverable	Lead body(ies)	Resource requirements and/or funding source
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, 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 pollut	tion		
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	Task Force on Hemispheric Transport of Air Pollution	Covered by the United States of America, the EU and in-kind contributions from national experts
		Documented set of "benchmark" air pollutant emissions scenarios for 2010–2030	CIAM	
			Task Force on Integrated Assessment Modelling	
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	Task Force on Hemispheric Transport of Air	In-kind contributions from national experts
		Report/publications summarizing the contribution of regional and extraregional sources to baseline and peak air pollution levels	Pollution MSC-W MSC-E	
1.6.3	Conduct detailed model-to- observation and model-to-model comparisons to better understand the ability of current modelling tools to	Report/publications on insights from model-to-model and model-to-observation comparisons	Task Force on Hemispheric Transport of Air Pollution	In-kind contributions from national experts
	represent intercontinental transport		MSC-W	
			MSC-E CCC	

Workplan item	Activity description/objective	Expected outcome/deliverable	Lead body(ies)	Resource requirements and/or funding source
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	assessment methods of regional and transported air pollution in cooperation with the Working	Task Force on Hemispheric Transport of Air Pollution Working Group	Covered by the United States, the EU and in-kind contributions from national experts
		expert groups from South and East Asia	on Effects	
		Report/publications on	CIAM	
		improved methods and impacts of mitigation measures affecting regional and extraregional sources	Task Force on Integrated Assessment Modelling	
1.6.5	Examine the impact of climate change on the contribution of regional and extraregional sources of air pollution	Report on robust findings from IPCC and other studies on impacts of climate change on air pollution transport	Task Force on Hemispheric Transport of Air Pollution	Covered by the 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	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
		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 HTAP experiment results		
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	Transport of Air	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 in accordance with Executive Body decisions 2012/3, 2012/4 and 2012/12 by experts	Expert assessments submitted to the EMEP Steering Body	EMEP Steering Body CEIP	Estimates to be provided by CEIP and the Task Force on Emission Inventories and Projections

Workplan item	Activity description/objective	Expected outcome/deliverable	Lead body(ies)	Resource requirements and/or funding source
1.7.2	Consider expert assessments of the applications for adjustments to emission inventories or commitments and make recommendations to the Executive Body	Recommendations to the Executive Body	EMEP Steering Body	_
1.7.3	Provide support to the implementation of the adjustment procedures under the Gothenburg Protocol as laid out in decisions 2012/3 and 2012/12	Implementation of decisions 2012/3 and 2012/12	secretariat	_
1.8	Science-policy messages/recommer	ndations		
1.8.1	Assess scientific work over the past decade; identify trends with regard to the long-term development of the Convention's air pollution policies	Joint Assessment Report Executive Summary in 2015		Bureau of the Working Group on Effects and EMEP Steering Body
1.8.2	Synthesize scientific findings; present messages and recommendations for policymakers	Chair's synthesis report of scientific findings for policymakers		Bureau of the Working Group on Effects, EMEP Steering Body and the Working Group on Strategies and Review

2. Policy

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**

Workplan item	Activity description/objective	Expected outcome/deliverable	Lead body(ies)	Resource requirements and/or funding source
2.1	Exchange of information and review	w/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	(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	Secretariat	US\$ 30,000
	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	(b) Recommendations to the Executive Body for further strengthening the ratification and implementation of the Convention's protocols and amendments to them	Working Group on Strategies and Review	
2.1.2	Organize high-level Meeting on Actions to Promote Improved Air Quality in the ECE countries of Eastern Europe, the Caucasus and Central Asia	Increased awareness among policy-makers in the target subregion of the benefits of ratification and implementation of the Convention's protocols; strengthened commitment to actions for accession to the protocols	Coordinating Group on promotion of actions towards implementation of the Convention in Eastern Europe, the Caucasus and Central Asia (Coordinating Group for Eastern Europe, the Caucasus and Central Asia) Secretariat	US\$ 110,000 (US\$ 30,000 provided by the Russian Federation)
2.1.3	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	Chair's report on present and future policy needs prepared for Executive Body sessions	Working Group	

Workplan item	Activity description/objective	Expected outcome/deliverable	Lead body(ies)	Resource requirements and/or funding source
A.	Development and promotion of Gu	idance documents		
2.2.1	Workshop/event in 2014 to promote awareness and understanding, in particular in countries of Eastern Europe, the Caucasus and Central Asia, of the Guidance document on control techniques for emissions of sulphur, NO _x , VOCs and and particulate matter (including PM ₁₀ , PM _{2.5} and black carbon) from stationary sources	Increased awareness of the control techniques for emissions from stationary sources in countries of Eastern Europe, the Caucasus and Central Asia	Expert Group on Techno- Economic Issues/ future Task Force on Techno- Economic Issues	US\$ 15,000 in addition to partial coverage from contribution by France
2.2.2	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/ future Task Force on Techno- economic Issues	US\$ 47,000 in addition to partial coverage from contribution by France and European Commission
2.2.3	Workshop in 2015 to promote awareness and understanding of 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 mobile sources in countries of Eastern Europe, the Caucasus and Central Asia. The responsible body should be the Expert Group on Techno-Economic Issues/future Task Force on Techno-economic Issues, with resources to be determined	Expert Group on Techno- Economic Issues/ future Task Force on Techno- economic Issues	US\$ 15,000 (indicative)
2.2.4	Workshop in 2014 to promote the application of the Guidance document on best available techniques for controlling emissions of heavy metals and their compounds	Increased capacity to apply BAT to implement the Protocol on Heavy Metals	Task Force on Heavy Metals (2014)	Covered from contributions by Norway and Germany
2.2.5	Workshop in 2015 to promote the application of the Guidance document on best available techniques for controlling emissions of POPs from major stationary sources	Increased capacity to apply BAT to implement the Protocol on POPs	Expert Group on Techno- Economic Issues/ future Task Force on Techno- economic Issues	US\$ 15,000

Workplan item	Activity description/objective	Expected outcome/deliverable	Lead body(ies)	Resource requirements and/or funding source
В.	Collection and analysis of data, fur	ther development of methodolog	gies	
2.2.6	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/ future Task Force on Techno- economic Issues	Covered by France [and Italy]
2.2.7	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/ future Task Force on Techno- economic Issues	US\$ 8,000 in addition to partial coverage from contribution by Italy
2.2.8	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	Expert Group on Techno- Economic Issues/ future Task Force	Covered by France
		Updated cost data for BAT reference documents for selected sectors (e.g., electricity)	on Techno- economic Issues	
2.2.9	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
2.2.10	Annual Task Force meetings to exchange information on techno-economic issues and network	Meeting reports to the Working Group on Strategies and Review with policy-relevant messages and recommendations	Expert Group on Techno- Economic Issues/ future Task Force on Techno- economic Issues	US\$ 8,000 (travel) in addition to partial coverage from contribution by France and Italy
2.2.11	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/ future Task Force on Techno- economic Issues as of 2015	Covered by France

Workplan				Resource requirements
item	Activity description/objective	Expected outcome/deliverable	Lead body(ies)	and/or funding source
2.2.12	Explore the new approaches and abatement techniques for further reducing POPs emissions	Report to the Working Group on Strategies and Review	Expert Group on Techno- Economic Issues/ future Task Force on Techno- economic Issues as of 2015	US\$ 30,000
2.2.13	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 for primary emissions of NO _x , sulphur dioxide, VOCs and PM, including SLCPs, heavy metals and POPs	Expert Group on Techno- Economic Issues/ future Task Force on Techno- economic Issues	Covered by France
2.3	Nitrogen			
A.	Development and promotion of gui	dance and reference documents	ı	
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 Best Available Techniques 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 United Kingdom, Denmark Canada, Czech Republic and Germany
В.	Collection and analysis of data; dev	velopment and refinement meth	odologies and new	approaches
2.3.4	Develop multi-pollutant approaches	Draft report on integrated	Task Force on	US\$ 25,000
	Organize workshop	approaches for nitrogen emission abatement policy	Reactive Nitrogen	(workshop in addition to development of document by the United Kingdom, Denmark and inkind contribution by authors)

Workplan item	Activity description/objective	Expected outcome/deliverable	Lead body(ies)	Resource requirements and/or funding source
2.3.5	Continue to provide technical information on making and using nitrogen budgets and estimating nitrogen emissions	Draft indicators submitted to the the Executive Body in 2015	Task Force on Reactive	Covered by the United Kingdom
		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 the United Kingdom and Denmark
C.	Outreach to other communities, reg	gions and cooperation with othe	r 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 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] ³

Workplan item	Activity description/objective	Expected outcome/deliverable	Lead body(ies)	Resource requirements and/or funding source
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 Convention on the Protection and Use of Transboundary Watercourses and International Lakes	Task Force on Reactive Nitrogen	[Covered by contribution from GEF] ³
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.

3. Compliance

In accordance with the Long-term Strategy "the work of the Implementation 18. 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. The secretariat will, in line with its enhanced role outlined in Executive Body decision 2012/25, when it "becomes aware of possible non-compliance by a Party with any of its obligations, it shall promptly request the Party concerned to furnish necessary information about the matter. If there is no response or the matter is not resolved within three months or such longer period as the circumstances of the matter may require, the secretariat shall bring the matter to the attention of the Committee" (ibid. para. 5). On the basis of information provided by the secretariat, the Committee will evaluate the reporting by Parties on their emission 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.

^b Subject to funding availability.

Table 3 **Compliance**

Workplan item	Activity description/objective	Expected outcome/deliverable	Lead body(ies)	Resource requirements and/or funding source
3.1	Review of compliance by Parties w	ith their obligations under the I	Protocols to the Co	onvention
3.1.1	Review compliance with reporting obligations: periodic review of compliance with Parties' reporting obligations, based on emission data submitted to EMEP and available in the WebDab emission database	(a) Overview of national inventory data for each of the seven protocols; draft trend tables with emissions data per pollutant and submit to the secretariat; provide revised data/tables upon request	CEIP	Covered by EMEP mandatory contributions
		(b) Notes on reporting obligations submitted to the Implementation Committee twice a year; draft recommendations on reporting for consideration by the Implementation Committee	Secretariat	Partially supported from extrabudgetary resources
		(c) Review of information submitted by the secretariat; recommendations submitted to the Executive Body	Implementation Committee	
3.1.2	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 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	Covered from contribution by Norway
		(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	

Workplan item	Activity description/objective	Expected outcome/deliverable	Lead body(ies)	Resource requirements and/or funding source
3.1.3	Provide support to the Implementation Committee, where needed	Expert advice on selected issues provided where needed	Task Force on Emission Inventories and Projections	_
			Expert Group on Techno- Economic Issues/ future Task Force on Techno- economic issues	
			Task Force on Reactive Nitrogen	
3.1.4	Review recommendations contained in Implementation Committee report	•	Executive Body	_

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

19. A viable future for the Convention depends upon positive and vigorous participation by the Parties in all parts of the region, an 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

Workplan item	Activity description/objective	Expected outcome/deliverable	Lead body(ies)	Resource requirements and/or funding source
4.1	Promote ratification of the Convention and the EMEP Protocol, the Protocol on POPs, the Protocol on Heavy Metals and the Gothenburg Protocol through workshops and advisory services to support the development of National	(a) National Action Plans in countries of Central Asia	Secretariat	US\$ 300,000 (indicative) partially covered from contributions by the EU, Switzerland and Norway
	Action Plans for 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	ds (c) Setting of emission Secretariat reduction targets and base year	Secretariat	US\$ 50,000 (indicative) partially covered from contributions by the EU and Norway
			Secretariat	US\$ 50,000 (indicative) partially covered from contributions by the EU and Norway
4.2	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	Secretariat, EMEP centres	US\$ 100,000 (indicative) partially covered from contributions by the EU, Norway and Switzerland
		(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	US\$ 50,000 (indicative) partially covered from contributions by the EU, Norway and Switzerland

Workplan item	Activity description/objective	Expected outcome/deliverable	Lead body(ies)	Resource requirements and/or funding source
4.3	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
4.4	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]
4.5	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	Covered by EMEP mandatory contributions
4.6	Workshop on critical loads, critical levels and mapping	Increased capacity in countries of Eastern and South-Eastern Europe, the Caucasus and Central Asia to estimate exceedances of critical loads and levels and damage to ecosystems from air pollution	ICP Modelling and Mapping	US\$ 40,000 (indicative)

5. Communication and outreach

20. In accordance with the Long-term Strategy for the Convention, communication activities will be undertaken to highlights 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.

Table 5 **Communication and outreach**

Workplan item	Activity description/objective	Expected outcome/deliverable	Lead body(ies)	Resource requirements and/or funding source
5.1	Raise public awareness of the Convention throughout the ECE region and beyond through press releases, publication of leaflets, articles and other materials as necessary	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	
	Disseminate relevant information provided by the Convention's scientific bodies			
	Manage the Convention's website as the main channel for communication to the public			
5.2	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, 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	US\$ 60,000 (indicative) partially covered from contributions by the EU, Norway and Switzerland
5.3	Maintain contacts and foster linkages, as relevant, with other regional and global organizations, in particular those addressing issues of importance for air quality (e.g., WHO, WMO, UNEP, UNFCCC, the International Maritime Organization, the Stockholm Convention on Persistent Organic Pollutants, 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); help develop links for collaboration and sharing of data and information	Coordinated approach and synergies in addressing air pollutants, cooperation with other international organizations, formal or informal, leading to improved understanding, information or data exchange	Secretariat	US\$ 15,000 (travel)

Workplan item	Activity description/objective	Expected outcome/deliverable	Lead body(ies)	Resource requirements and/or funding source
5.4	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)
5.5	Promote awareness of the Convention and foster linkages, as relevant, with other ECE multilateral environmental agreements and programmes, including environmental policy, transport, sustainable energy, housing and land management and forestry	Improved awareness by other ECE programmes about the Convention and the linkages between air pollution and relevant cross-sectoral issues	Secretariat	_