



**Economic and Social
Council**

Distr.
GENERAL

ECE/EB.AIR/WG.5/2010/7
26 January 2010

Original: ENGLISH

ECONOMIC COMMISSION FOR EUROPE

**EXECUTIVE BODY FOR THE CONVENTION ON
LONG-RANGE TRANSBOUNDARY AIR POLLUTION**

Working Group on Strategies and Review

Forty-sixth session

Geneva, 12–15 April 2010

Item 4 of the provisional agenda

**PROGRESS IN THE IMPLEMENTATION OF THE ACTION PLAN FOR EASTERN
EUROPE, CAUCASUS AND CENTRAL ASIA**

**WORKSHOP TO PROMOTE RATIFICATION OF THE PROTOCOLS ON HEAVY
METALS AND PERSISTENT ORGANIC POLLUTANTS AND THE GOTHENBURG
PROTOCOL**

Note by the Chair of the Task Force on Heavy Metals

I. INTRODUCTION

1. This report, mandated by item 1.6 (c) of the 2009 workplan of the Convention (ECE/EB.AIR/96/Add.2), was prepared by the Chair of the Task Force on Heavy Metals, the Co-chair of the Task Force on Persistent Organic Pollutants (POPs) and the Co-chairs of the Expert Group on Techno-Economic Issues in cooperation with the secretariat. The workshop took place from 26 to 28 October 2009 in St. Petersburg, Russian Federation. It was organized and financed by the French Agency for Environment and Energy Management (ADEME) and the German Ministry for the Environment. The Russian Scientific Research Institute of Atmospheric Air Protection (SRI-Atmosphere) hosted the meeting.

2. Forty experts from the following Parties to the Convention attended the workshop: Albania, Azerbaijan, Belarus, Bulgaria, Czech Republic, France, Germany, Kyrgyzstan,

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Montenegro, Netherlands, Republic of Moldova, Russian Federation, Serbia, the Former Yugoslav Republic of Macedonia, Ukraine and Uzbekistan. Also present were representatives of the Coordination Centre for Effects (CCE) and the Meteorological Synthesizing Centre-East (MSC-East) of EMEP¹. Two members of the United Nations Economic Commission for Europe (UNECE) secretariat also attended.

3. Ms. V. Koplán-Díks, Deputy Director of the SRI-Atmosphere, and Mr. M. Rico from the French Ministry of the Environment welcomed the participants. They co-chaired the meeting together with Ms. K. Kraus (Germany), Chair of the Task Force on Heavy Metals, and Mr. T. Pignatelli (Italy), Co-Chair of the Expert Group on Techno-Economic Issues. The round-table discussions on problems and possible solutions for ratification of the Protocols by countries in Eastern Europe, Caucasus and Central Asia (EECCA) and South-Eastern Europe (SEE) were chaired by Mr. I. Angelov (Bulgaria).

II. OBJECTIVES

4. The objectives of the workshop were:

(a) To promote the ratification of the Protocol on Heavy Metals, the Protocol on Persistent Organic Pollutants (POPs) and the 1999 Gothenburg Protocol to Abate Acidification, Eutrophication and Ground-level Ozone (Gothenburg Protocol) by EECCA and SEE countries

(b) To raise the awareness and interest of the EECCA and SEE countries and involve them further in the activities of the Convention to improve air quality, with a focus on activities to upgrade legal obligations, monitoring networks, emission inventories, technologies and technical measures for emission reduction in these countries;

(c) To provide information on the three most recent Protocols' requirements and on the technical and legal measures needed for their implementation, as well as to highlight co-benefits and synergies between the Protocols;

(d) To review actions undertaken by EECCA and SEE countries to implement the Protocols' obligations and to identify difficulties in and exchange experiences regarding the national implementation process, including with countries that are already Parties to the Protocols;

(e) To supply information on the impacts on health and the environment from exceedance of critical loads of heavy metals, POPs, as well as sulphur dioxide (SO₂), nitrogen oxide (NO_x), ammonia and volatile organic compounds (VOCs) in EECCA and SEE;

(f) To provide information on the relevant guidance materials and other sources of information and on the support mechanisms and funding opportunities available to assist countries with ratifying and implementing the Protocols, as well as on the benefits to be gained from acceding to the Protocols;

¹ The Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe

- (g) To identify future steps for the countries vis-à-vis implementation of the Protocols;
- (h) To discuss further possibilities for donor countries and organizations for supporting the countries in their efforts to ratify the Protocols.

III. SUMMARY OF THE PRESENTATIONS AND DISCUSSIONS

5. The following were presented and discussed at the workshop²:

- (a) The Convention's framework and institutional structure and the Protocols' main obligations of the for the abatement of air pollution as well as progress made with their revision, including adding flexibility to them to facilitate their ratification by EECCA and SEE countries;
- (b) Establishing and improving the EMEP monitoring network in EECCA and SEE;
- (c) Progress in the evaluation of atmospheric pollution levels of heavy metals and POPs in EECCA and SEE countries;
- (d) Requirements, estimations and tools for preparing emission inventories under the Convention and for harmonizing them with those required under the United Nations Framework Convention on Climate Change;
- (e) Calculation methods, results and background data relating to critical loads and their exceedance with a focus on EECCA and SEE;
- (f) The methodology for data collection on techno-economic issues, and the revision of the annexes and the guidance documents of the Gothenburg Protocol
- (g) Emerging technologies for large combustion plants;
- (h) The European Union reference documents on best available techniques (EU BREFs) and the UNECE guidance documents for cement industry;
- (i) The EU BREF and UNECE guidance documents on sources in the metallurgical sector;
- (j) Experiences with transposing the Protocol obligations into national legislation;
- (k) Difficulties for EECCA and SEE countries related to the implementation and ratification of the Convention's protocols, as well as the steps taken to address these problems;
- (l) UNECE projects supporting ratification of the Protocols by EECCA and SEE countries, including:

² The presentations and abstracts are available on the Convention's website at:
<http://www.unece.org/env/lrtap/TaskForce/tfhm/workshop%2026-28%20october2009.htm>

- (i) A Czech sponsored project to support the Republic of Moldova in implementing the Gothenburg Protocol, to establish and improve the national emission inventory, and to provide up-to-date input data for integrated assessment modeling;
- (ii) A Dutch sponsored project for five SEE countries (Albania, Bosnia and Herzegovina, Montenegro, Serbia and the former Yugoslav Republic of Macedonia,) to aid them with implementation of the provisions and ratification of the Heavy Metals and POPs Protocols and the Gothenburg Protocol;
- (iii) A planned project coordinated by the Russian Federation to support EECCA countries with implementing and ratifying the Heavy Metals and POPs Protocols and the Gothenburg Protocol, initially focusing on the Russian Federation, Belarus and Kazakhstan.

IV. CONCLUSIONS AND RECOMMENDATIONS

A. General conclusions

6. The participants warmly thanked the donor Governments, France and Germany, and the host organization, SRI-Atmosphere. They expressed their appreciation for the convivial atmosphere, which had prompted open and fruitful debate and the beneficial exchange of ideas and experience.

7. A workshop held in Yerevan in May 2008 to promote ratification of the Protocol on Heavy Metals was seen as an important initial step, one which had activated interest, dialogue and activities in the EECCA and SEE countries³. One and a half years later, the workshop in St. Petersburg had demonstrated the progress made towards ratification of the Heavy Metals Protocol as well as the POPs and Gothenburg Protocols, in particular by SEE countries.

8. In general terms, the EECCA and SEE countries expressed their willingness to ratify the three Protocols. However, regarding the national implementation steps, the countries were at different stages of preparedness. During the round-table discussions, EECCA and SEE experts provided estimations of the expected timing for implementation and ratification by their countries. SEE countries were relatively more advanced: most had developed their national implementation plans and some had signed memorandums of understanding for ratification as part of the UNECE "Balkans project". A number of EECCA countries had also developed national implementation plans for ratification of the Heavy Metals and POPs Protocols.

9. All of the experts at the workshop reported on improvements and adjustments made to their national legislation on air pollution, although in many cases further work was still needed to reach compliance with the Protocols' obligations. Several countries had begun to improve their

³ The report from the Yerevan workshop (ECE/EB.AIR/WG.5/2008/9) is available on the Convention website at: <http://www.unece.org/env/lrtap/WorkingGroups/wgs/docs42nd%20session.htm>. The presentations are available at: <http://www.unece.org/env/lrtap/TaskForce/tfhw/workshop%2014-16%20may%202008.htm>

national emission inventories to be able to better report data and to define measures for future work. All countries reported that they issued permits for larger installations. In many of them, these were issued as integrated permits, but it was particularly difficult for smaller incineration installations and old installations to comply with environmental norms because the application of best available techniques (BAT) was so costly and complex.

10. The experts emphasized that progress with implementation and ratification of the Protocols depended on the economic situation and political developments. They all stressed the importance of high-level political support for the success of the national preparations. Many countries expressed the need to internally justify the reasons for the implementation and ratification. It was important for them to be able to clearly state the advantages and benefits to be gained in acceding to the Protocols in order to harness the political support needed for launching and effectively completing the national preparatory work involved. The countries had learned that under the Convention a wealth of information was available with respect to (a) dispersion, concentrations and deposition of the pollutants covered by the Protocols, (b) cost-benefit analyses, and (c) their health and environmental effects (exceedance of critical loads). In addition, the projects to support the Protocols' implementation of referred to in paragraph 5 (l) involved cost-benefit analysis of the implementation measures.

11. All the EECCA and SEE experts were interested in taking active part in multilateral assistance projects and capacity-building workshops provided that financial support was made available. However, the participants concluded that countries should not wait for assistance. Instead, they should start making progress at the national level by harnessing political support and laying the groundwork for the implementation process, e.g. through establishing and improving national emission inventories. Countries might wish to assess whether it is more feasible to ratify one Protocol at the time, or to aim at ratifying all of them.

B. Specific difficulties in implementation of the Protocol on Persistent Organic Pollutants and the Gothenburg Protocol

12. The experts took stock of the conclusions from the Yerevan workshop on problems and possible solutions regarding implementation of the Protocol on Heavy Metals, re-emphasizing some of them and adding further issues.

13. Specific problems regarding the Protocol on POPs and the Gothenburg Protocol were presented. These included:

(a) Insufficient monitoring capacities due to obsolete equipment and monitoring methods, and different reporting formats;

(b) Insufficient or lacking emission inventories for various pollutants, notably for POPs. In many cases only national statistical data was available;

(c) Introduction of BAT for old installations was difficult and costly;

(d) The ratification of Gothenburg Protocol was seen as highly complex, in particular due to the lack of data on emissions from mobile sources and emissions from agricultural sources, and the absence of limit values for VOCs;

C. Specific needs and means for assistance

14. The EECCA and SEE experts drew attention to a number of practical ways in which the donor countries could assist them in the implementation process. Some of the specific measures proposed included:

(a) Translation into Russian of key sources of information and guidance, notably the *EMEP/EEA⁴ Emission Inventory Guidebook*, and the (summaries) of the EU BREFs. This could involve setting up a platform for translation of documents by the EECCA and SEE countries;

(b) To facilitate the exchange of information and experiences, the suggestion was made to set up an online forum or a clearing house for questions and answers for the EECCA and SEE countries. For effective functioning of this Internet forum, it was deemed necessary to appoint a dedicated person to maintain the forum and to follow-up on the questions. The experts proposed appointing a focal point for EECCA and SEE issues, who would also be responsible for the online forum. The forum could be useful also for exchanging experiences and good practice among the EECCA and SEE countries themselves. For example, in some of the countries the knowledge and capacity for handling and destroying waste were lacking, whereas other countries reported good practices in this field;

(c) Twinning projects for reviewing the emission inventories and calculation of emission projections;

(d) Training for national experts on using data or producing maps of critical loads, and in general to improve the effects work and participation in the International Cooperative Programmes (ICPs) under the Working Group on Effects;

(e) Strengthening the capacity of laboratories for sampling and analysis of heavy metals and unintentionally released POPs;

(f) Research and assessment regarding heavy metals in products and identification of product management measures and costs for implementation of the protocol obligations;

(g) Regarding POPs, application of BAT/best environmental practices (BEP) for reduction and elimination of dioxins and furans (PCDDs/PCDFs) from open waste-burning and landfill sites, disposal and management of obsolete POPs pesticides from agriculture, monitoring of polychlorinated biphenyl (PCB)-containing equipment and identification and remediation of PCB-contaminated sites;

⁴ European Environment Agency.

(h) Review of the draft national action/implementation plans for the ratification of the Protocols by external experts or a partner country or the secretariat, to ensure the countries that they have proceeded in an appropriate manner and focused on the right measures for implementation.

15. In addition to the donor assistance, the participants concluded that active involvement of EECCA and SEE experts in work under the Convention was essential for developing their national capacity to implement the Protocols' obligations. It was pointed out that many of the task forces, expert groups and ICPs operating under the Convention had some means available for financially assisting the participation of experts from EECCA and SEE in the meetings and workshops.

16. As the need for technical assistance in EECCA and SEE covered practically all aspects of the work under the Convention, one suggestion was to systematically include in the technical bodies' meetings a segment (e.g. one day) devoted to technical assistance and training for EECCA and SEE countries. The relevant technical bodies referred to included the Task Force on Measurements and Modelling, the Task Force on Integrated Assessment Modelling, the Task Force on Emission Inventories and Projections and all of the ICPs. EECCA and SEE experts were also welcome to take part in the work of the Task Force on POPs and the Task Force on Heavy Metals.

17. The Expert Group on Techno-Economic Issues strongly recommended that EECCA and SEE countries nominate national experts to take part in the work of that Expert Group. The contribution of EECCA and SEE national experts was seen essential to assessing the parameters of technologies in use or expected to be in the future at the national level, in particular with respect to the defining marginal costs for their implementation and upgrading. These key parameters would be used by the Centre on Integrated Assessment Modelling (CIAM) to assess emissions as well as the total and relative costs of the scenarios related to the revision of the Gothenburg Protocol.

D. Further needs for capacity-building workshops

18. EECCA and SEE countries stressed the need for capacity-building in the form of workshops and training courses. They were encouraged to take the initiative in organizing workshops in their countries on topics of importance to their specific needs and capacity to implement and ratify the Protocols. Such workshops could draw upon expertise and donor funds from under the Convention, including as part of part of the UNECE projects referred to in paragraph 5 (l). Such workshops should be open for participation from all the EECCA and SEE countries.

19. The EECCA and SEE experts identified a number of specific topics for workshops and training courses that were deemed particularly necessary for implementation of the obligations of the three Protocols. These included:

- (a) Abatement of nitrogen emissions from agriculture;

(b) The main goals of the revised Gothenburg Protocol and the EU National Emission Ceiling (NEC) Directive;

(c) Continuous measurement of emissions from stationary sources for different pollutants, related emission monitoring and inspection of these sources (especially mentioned were POPs and particulate matter (PM_{2.5} and PM₁₀));

(d) Training courses for operators and government employees on implementing BAT and related issues such as integrated permitting;

(e) Assessment of costs and benefits of the implementation of the Protocols' obligations;

(f) Regarding emission inventories, the experts concluded that adequate national emission inventories provided a basis for the air quality policymaking in the countries and were therefore also essential for the Protocols' implementation and ratification. The suggestion was made to hold regular training workshops for experts on inventories, projections and reporting, with a particular focus on particulate matter (both PM₁₀ and PM_{2.5}), ammonia and VOCs.
