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Working Group on Strategies and Review

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Item 3 of the provisional agenda
Progress in the implementation of the 2018–2019 workplan

Report of the Task Force on Techno-economic Issues

Summary

At its thirty-third session (Geneva, 8–11 December 2014), the Executive Body for the Convention on Long-range Transboundary Air Pollution adopted decision 2014/2 (see ECE/EB.AIR/127/Add.1), upgrading the Expert Group on Techno-economic Issues to the Task Force on Techno-economic Issues. In accordance with the mandate set out in the annex to decision 2014/2, the Task Force is required to report on progress in its work to the Working Group on Strategies and Review.

The report by the Task Force on Techno-economic Issues contained in the present document presents information on the progress in the implementation of the 2018–2019 workplan for the implementation of the Convention (ECE/EB.AIR/140/Add.1, forthcoming) with respect to activities relevant to the Task Force, as well as the outcomes of the third annual meeting of the Task Force (Rome, 20 October 2017).

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I. Introduction

1. The third annual meeting of the Task Force on Techno-economic Issues (Rome, 20 October 2017) was organized by Italy and France, back to back with the second meeting of the Clearing House Evaluation Committee at the same venue. Pursuant to decision 2014/2 of the Executive Body for the Convention on Long-range Transboundary Air Pollution, the Task Force is tasked with creating and maintaining a regional clearing house of control technology information for primary emissions of nitrogen oxides, sulphur dioxide, volatile organic compounds and particulate matter, including short-lived climate pollutants, heavy metals and persistent organic pollutants.

2. The present document contains information on the outcomes of these meetings and on the progress made in the implementation of the 2018–2019 workplan for the Convention (ECE/EB.AIR/140/Add.1, forthcoming) with respect to the activities relevant to the Task Force, including a number of activities in 2017.

A. Attendance

3. The Task Force meeting gathered 37 experts, including representatives from the following 12 Parties to the Convention: Austria, Belarus, Canada, Croatia, France, Germany, Italy, Sweden, Netherlands, Russian Federation, Switzerland and Ukraine.

4. Representatives of the French Environment and Energy Management Agency, the French-German Institute for Environmental Research at the Karlsruhe Institute of Technology, the German Federal Environment Agency and the Inter-professional Technical Centre for Studies on Air Pollution, in their capacity as members of the technical secretariat of the Task Force, attended the meeting. In addition, representatives of the United Nations Economic Commission for Europe (ECE) secretariat, the United Nations Environment Programme and the United Nations Framework Convention on Climate Change (UNFCCC) participated in the meeting of the Task Force. Also present were representatives from the scientific centres and other bodies under the Convention, including: the Centre on Emission Inventories and Projections; the Centre for Integrated Assessment Modelling; the Coordinating Group on the promotion of actions towards implementation of the Convention on Long-range Transboundary Air Pollution in Eastern Europe, the Caucasus and Central Asia (Coordinating Group); the Meteorological Synthesizing Centre-East; and the Programme Coordinating Centre for the International Cooperative Programme on Effects of Air Pollution on Materials, including Historic and Cultural Monuments. Other participants included representatives from the Energy Research Centre of the Netherlands, the European Cement Association, the European Solvents Industry Group and the International Cryosphere Climate Initiative and two experts from the private sector.

5. Simultaneous English-Russian interpretation was provided by Germany to facilitate the participation of the Russian-speaking experts. The participation of two experts from Eastern Europe, the Caucasus and Central Asia and a representative of the secretariat was financially supported by France. The participation of the representative of the Meteorological Synthesizing Centre-East was supported by Germany. The cost of catering services was shared by France and Germany. All the presentations delivered together with the detailed agenda of the meeting are available on the Task Force website.[1]

[1] See http://tftei.citepa.org/.

B. Organization of work

6. Tiziano Pignatelli (Italy) and Jean-Guy Bartaire (France), Co-Chairs of the Task Force on Techno-economic Issues, chaired the third annual meeting of the Task Force. Emmanuel Fiani (France) chaired the preceding meeting of the Clearing House Evaluation Committee. The Head of the Strategic Technical Support Unit of the Department for Sustainability of Productive and Territorial Systems of the Italian National Agency for New Technologies, Energy and Sustainable Economic Development, which hosted the meeting, welcomed the participants with an opening address.

7. The meeting mainly focused on reporting on progress in the implementation of the workplan and sharing updates on the work carried out by the technical secretariat of the Task Force in cooperation with its expert members. In particular, the discussion evolved around the following main points, in line with the current mandate of the Task Force:

(a) Further development of the regional clearing house of control technology information;

(b) Involvement of countries in Eastern Europe, the Caucasus, Central Asia and the Russian Federation;

(c) Collaboration with other bodies of the Convention, in particular the Task Force on Reactive Nitrogen, the Task Force on Integrated Assessment Modelling and the Meteorological Synthesizing Centre-East;

(d) Cooperation with the European industry associations;

(e) Cooperation with international and non-government organizations, including those outside the ECE region;

(f) The recommendations of the ad hoc policy review group of experts on the 2016 scientific assessment of the Convention (policy review group) in relation to the 2018–2019 workplan for the implementation of the Convention.

II. Progress in the implementation of the 2018–2019 workplan

8. This part of the report summarizes the status of progress in the implementation of activities assigned to the Task Force in the 2018–2019 workplan for the implementation of the Convention. The summaries are provided by workplan item.[2]

Item 2.3.2

Further development of techno-economic tools for estimating costs of implementing BAT and complying with the requirements of the Protocol to Abate Acidification, Eutrophication and Ground-level Ozone (Gothenburg Protocol) in different sectors and its promotion.

9. The methodology developed by the technical secretariat of the Task Force for estimating costs in large combustion plants and its upgraded Emission Reduction Investment and Cost Calculation tool are used by a number of industrial facilities in France and are referenced in the "Best Available Techniques (BAT) Reference Document for Large Combustion Plants"[3] of the European Union. The methodology and the tool are

[2] In several cases the titles abbreviate or summarize much longer workplan items. For the full text of each item, see ECE/EB.AIR/140/Add.1 (forthcoming).

[3] Thierry Lecomte and others, Joint Research Centre Science for Policy Report, EUR 28836 EN (Luxembourg, Publications Office of the European Union, 2017).

promoted at relevant conferences and technical meetings, including those targeting countries in Eastern Europe, the Caucasus and Central Asia.

Item 2.3.3

Disseminate the methodology and update the related tool for the analysis of GAINS scenarios in Eastern Europe, the Caucasus and Central Asia.

10. The methodology for analysis of the Greenhouse Gas and Air Pollution Interactions and Synergies (GAINS) scenarios with regard to provisions of the Gothenburg Protocol was previously presented at the joint meeting of the Task Force and the Coordinating Group
(Saint Petersburg, Russian Federation, 19–20 October 2016). The tool is undergoing revision to take into account the latest changes in the output format of the GAINS model. To date, the dissemination of this methodology has been limited to electronic communication. The organization of a technical meeting for experts from Eastern Europe, the Caucasus and Central Asia is subject to availability of funds.

Item 2.3.4

Collect and provide data for inclusion in the GAINS model.

11. The Task Force collects data on costs of the implementation of BAT on a regular basis. At times, ad hoc technical meetings are organized with the experts of the Centre for Integrated Assessment Modelling to share data that could be used for modelling.

Item 2.3.6

Continue to develop and promote the regional clearinghouse of control technology information.

12. Five new technical documents have been submitted through the exchange platform of the regional clearing house of control technology information to its Evaluation Committee for their subsequent publication on the clearing house website. Links to the information on other international environmental agreements, organizations and programmes were added. The communication with equipment suppliers and industrial users, crucial for the success of the clearing house, has been carried out electronically, through teleconferences and meetings with European industry associations. The development of the Russian language version of the website and its continued update has been recognized as a key factor for the experts from Eastern Europe, the Caucasus and Central Asia to benefit from the information collected on BAT.

Item 2.3.7

Promote the guidance document for estimation and measurement of VOCs emissions.

13. Following the adoption of the Guidelines for Estimation and Measurement of Emissions of Volatile Organic Compounds (ECE/EB.AIR/139) by the Executive Body at its thirty-sixth session (Geneva, 15–16 December 2016), it is planned to further increase the capacity in monitoring and calculation of emissions of volatile organic compounds (VOCs).

III. Other relevant discussion points at the annual meeting

14. The following paragraphs capture the main issues presented and discussed at the third annual meeting of the Task Force.

15. The representative of the secretariat gave an overview of the latest activities under the Convention, highlighting the policy response to the 2016 scientific assessment of the Convention,[4] the outcomes of the fifty-fifth session of the Working Group on Strategies and Review (Geneva, 31 May–2 June 2017) and its thematic session on agriculture and air pollution, and the capacity-building and outreach activities managed by the secretariat.

16. The representative of Sweden, Chair of the Executive Body, presented the long-term perspectives for the Convention. With reference to the 2016 scientific assessment, she mentioned the achievements of the Convention and the remaining challenges related to air pollution reduction. In particular, there was a need for progress with regard to the ratification and implementation of the key protocols to the Convention, in particular among countries in Eastern Europe, the Caucasus and Central Asia. As a way forward, she mentioned the update of the long-term strategy for the Convention. Parties might wish to consider further revising the Gothenburg Protocol with a view to including new substances, or to focus on specific sources. There was also a need to increase international cooperation, follow an integrated approach and use synergies with other policy areas like energy, transport, agriculture and climate, also in the context of the 2030 Agenda for Sustainable Development.

17. The representative of Canada, Chair of the Working Group on Strategies and Review and member of the policy review group, gave an overview of the main outcomes and recommendations of the group, focusing on those relevant for the work of the Task Force and actions to be implemented by it within the short and long term.

18. The representative of Germany informed participants about the outcomes of the first meeting of the Conference of the Parties to the Minamata Convention on Mercury (Geneva, 24–29 September 2017). She listed some challenges the Parties to the Minamata Convention were facing and suggested potential synergies and areas for cooperation under both conventions.

19. The representative of the Russian Federation, Deputy Director of the Research Institute "Environmental Industrial Policy Centre", reported on a project to be carried out in the Russian Federation with the aim of analysing various scenarios for the introduction of BAT in the country and to assess the effects of air pollution on human health, ecosystems and objects of cultural heritage. He invited the experts of the Task Force to cooperate in the project's implementation.

20. The representative of the Russian Federation, Chair of the Coordinating Group, presented the Coordinating Group's workplan for 2018–2019. In particular he highlighted the Coordinating Group's participation in the work of the policy review group with regard to updating the long-term strategy for the Convention; the organization of a dedicated session of the Saltjobaden VI workshop (Gothenburg, Sweden, 19–21 March 2018) for countries in Eastern Europe, the Caucasus and Central Asia to discuss barriers towards ratification and the way forward; and activities bridging the work under the Convention on Long-range Transboundary Air Pollution and the Minamata Convention on Mercury. In addition, he mentioned the joint meeting of the Coordinating Group and the Task Force planned for October-November 2018, expected participation in the update of the regional clearing house of control technology and the dissemination of information about it and experience on the introduction of BAT in the Russian Federation to be shared with other countries.

[4] See Rob Maas and Peringe Grennfelt, eds., *Towards Cleaner Air: Scientific Assessment Report 2016* (Oslo, 2016) and United States Environmental Protection Agency and Environment and Climate Change Canada, *Towards Cleaner Air: Scientific Assessment Report 2016 — North America* (2016, online report).

21. The representative of the Meteorological Synthesizing Centre-East presented the analysis of emissions trends of polycyclic aromatic hydrocarbons (benzo(a)pyrene) in the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP) region during the period 1990–2015, with a focus on residential combustion as a major source. In 2015 annual concentrations of the benzo(a)pyrene had exceeded the WHO reference level in 16 countries, while the overall trend was stable. The Meteorological Synthesizing Centre-East was expected to support the work of the Task Force in analysing in 2018–2019 the effectiveness of the implementation of the Protocol on Persistent Organic Pollutants.

22. The representative of a French manufacturing company presented an overview of available technologies to reduce emissions of nitrogen oxides from large combustion systems. He noted that BAT were commonly available to significantly reduce emissions of the main air pollutants from waste combustion, energy recovery, flue gas cleaning and power production. He provided information on the efficiency of certain technologies to reduce emissions of main pollutants, heavy metals and persistent organic pollutants. Furthermore, he listed a number of projects implemented in France and other countries including those aimed to reduce emissions of sulphur oxides from commercial ships.

23. The representative of the European Cement Association shared experience in the reduction of emissions of nitrogen oxides at European cement plants. The primary control measures included flame cooling, use of low emission burners, process optimization, use of mineralizers, staged combustion and mid-kiln firing. Those measures alone, however, were not sufficient for the requested abatement. The more efficient secondary measures included selective catalytic and non-catalytic reduction. The presenter gave an overview of the costs of implementation of the technologies mentioned. Continuous progress was being made in the introduction of BAT in the cement sector in Europe, driven by the commitment of enterprises to reduce their environmental footprint, including in countries with economies in transition.

24. The representative of Portugal, Co-Chair of the Task Force on Reactive Nitrogen, participated in the discussion via Skype, proposing ideas for cooperation between the Task Forces on Techno-economic Issues and the Task Force on Reactive Nitrogen with the aim of further reducing ammonia emissions, following the recommendation of the policy review group and the Working Group on Strategies and Review. She suggested that the task forces hold further discussions to identify areas of potential joint activities, as, for example, the capture of nitrogen oxides and agriculture machinery, and prepare a proposal for consideration by the Working Group on Strategies and Review at its fifty-sixth session.

25. The representative of the International Cryosphere Climate Initiative presented measures to reduce emissions from residential wood burning, a major source of soot (black carbon) in Europe. He referred to a respective recommendation by the policy review group to establish emission standards based on BAT for residential appliances, including solid fuel burning, and asked the Task Force to develop a related code of good practice. Noting that open agricultural burning was another major source of emissions of fine particulate matter and black carbon, he suggested common action of the Task Force on Techno-economic Issues and the Task Force on Reactive Nitrogen on that issue. He further suggested that the testing protocol developed by the Nordic Council be used by Parties to the Gothenburg Protocol as a reference for potential emission limit values for black carbon, if such a revision of the Protocol was considered in the future.

26. The representative of the United Nations Environment Programme spoke about the importance of technology for environmental protection, focusing on the work of the United Nations Environment Programme’s Technology Unit and its contribution to the achievement of the Sustainable Development Goals. There was an online platform for technologies being developed to map existing science, technology and innovation

initiatives, facilitate access to information, knowledge and experience, and disseminate relevant open access scientific publications. He listed examples of the application of new technologies that reduced pollution across various sectors, such as transport, agriculture, energy and waste management and in environmental monitoring.

27. The representative of UNFCCC informed participants about the main areas of work of the Technology Executive Committee, the policy element of the UNFCCC Technology Mechanism, and in particular its work on industrial energy efficiency in 2017.

28. With regard to its planned activities, the Task Force discussed the new items that had been included in the draft 2018–2019 workplan for the implementation of the Convention (ECE/EB.AIR/2017/1), following the recommendations of the policy review group, for which the Task Force was defined as a lead body. In particular, it discussed the task to develop a code of good practice for solid fuel burning and small combustion installations and the tasks to be carried out in cooperation with the Task Force on Integrated Assessment Modelling, which were deemed challenging. Concerning the development of a code of good practice, it was decided that Italy and France would implement the task with the expected contribution from other experts of the Task Force. Regarding the analyses and reports to be prepared jointly with the Task Force on Integrated Assessment Modelling, it was essential to assess the feasibility of creating a group of experts and the availability of financial resources for further modelling analysis.

29. Subsequently, the workplan items discussed by the Task Force at its third meeting were included in the 2018–2019 workplan for the implementation of the Convention, adopted by the Executive Body at its thirty-seventh session (Geneva, 11–14 December 2017), subject to the availability of resources.

IV. Annual meetings of the Task Force

30. The annual meeting of the Task Force will take place in 2018 at a venue and a time to be further agreed with its members. The Co-Chairs received an invitation from the Government of Morocco to host the 2018 annual meeting in that country, and the Task Force informed the Executive Body at its thirty-seventh session of the invitation.