

## **Revised mandate for the Task Force and the Programme Centre of the International Cooperative Programme on Effects of Air Pollution on Materials, Including Historic and Cultural Monuments.**

1. The current terms of reference (mandates) for International Cooperative Programmes (ICPs) and the Task Force on the Health Aspects of Air Pollution had been specified in document *Future Development of Effects-Oriented Activities* (EB.AIR/WG.1/2000/4, Annexes II-VIII) approved by the Working Group on Effects (WGE) and the Executive Body in 2000. The mandates need to be revised and updated to make them consistent with the current provisions and priorities of the Convention and of WGE set in the following documents:

- (a) Long-term Strategy for the Convention on Long-range Transboundary Air Pollution (ECE/EB.AIR/106/Add.1);
- (b) The 2016 scientific assessment of the Convention;<sup>1</sup>
- (c) Policy response to the 2016 scientific assessment of the Convention (ECE/EB.AIR/WG.5/2017/3, ECE/EB.AIR/WG.5/2017/3/Corr.1 and ECE/EB.AIR/2017/4 forthcoming);
- (d) Guidelines for reporting on the monitoring and modelling of air pollution effects (ECE/EB.AIR/2008/11, ECE/EB.AIR/WG.1/2008/16/Rev.); and
- (e) Draft 2018-2019 workplan for the implementation of the Convention (ECE/EB.AIR/2017/1, forthcoming).

The revised mandates will include key objectives and functions of the task forces and centres. The mandates are expected to be in force for the next 5 to 10 years. Specific activities and related deliverables on a shorter timeframe will be included in the bi-annual workplans for the implementation of the Convention.

2. Highlights of achievements of the Task Force and Programme Centre of the International Cooperative Programme on Effects of Air Pollution on Materials, Including Historic and Cultural Monuments (ICP Materials) are:

- (a) Maintenance of a regionally extensive database on pollution, climate, corrosion and soiling in a network of urban, rural and industrial test sites in Europe and North America;
- (b) Develop and maintain high quality standards in data collection by adhering to relevant standards within International Organization for Standardization (ISO) Technical Committee 156 for exposure and evaluation of corrosion attack on materials;
- (c) Development of corrosion dose-response-functions for sulphur dioxide dominating situation, corrosion dose-response functions for the multi-pollutant situation and soiling dose-response functions for a variety of materials;
- (d) Regular exposure of indicator materials for periodic trend assessments (each third year) enabling quantification of trends in pollution, corrosion and soiling;

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<sup>1</sup> 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).

(e) Several case studies on United Nations Educational, Scientific, and Cultural Organization (UNESCO) cultural heritage sites as policy relevant indicators for verification of air pollution effects on real objects of cultural heritage, including economic assessment.

#### **Annex**

#### **Revised mandate for the Task Force and the Programme Centre of the International Cooperative Programme on Effects of Air Pollution on Materials, Including Historic and Cultural Monuments (ICP Materials).**

1. The main research centre (at Swerea KIMAB, Stockholm, Sweden) is responsible for the detailed planning and coordination of the programme, including co-chairing of the ICP Materials Task Force together with Italy.
2. The Centre will assume principal responsibility for coordinating the relevant activities under the ICP Materials including development of technical projects, provision of deliverables according to the workplan (including reports and access to all relevant information and data), participation in relevant Task Force meetings and workshops, organizing technical workshops and training workshops, and providing communication with and direct support to Parties.
3. The Centre will be responsible for the production and the provision with respect to the processes set by the WGE (in particular regarding the time lines) of quantitative policy-relevant information on monitored and modelled air pollution effects on materials, necessary for the implementation of the Convention and its Protocols by the Parties.
4. The Centre will report on its activities and deliverables to the WGE and to other bodies of the Convention as needed.
5. Specific scientific and technical activities developed by the Centre should be discussed and approved by WGE and be included in the biannual workplan.
6. The functions of the Centre will include:
  - (a) Monitoring and assessment of the impact of the environment on corrosion and soiling effects on materials as well as their trends by i) maintaining and developing an international network of atmospheric corrosion test sites; ii) conduct regular short term (1-year) and long term (4-year) exposures of corrosion and soiling specimens and; iii) Collect and measure environmental data at the test sites. This is done by support of and collaboration with national focal points for test sites, sub-centres for materials and the sub-centre for environmental data;
  - (b) Derivation of exposure-response functions for corrosion and soiling effects of air pollutants, in combination with other stresses such as climate change and chloride deposition;
  - (c) Gathering information on policy-relevant user friendly indicators to evaluate air pollution effects on materials by conducting case studies on the UNESCO cultural heritage sites including i) assessment of the environment and condition; ii) risk assessment; iii) economic assessment of damages of corrosion and soiling. This is done by support of and collaboration with the sub-centre for cultural heritage in Italy;
  - (d) Investigate the relevance of short lived climate forcers, in particular black carbon from the viewpoint of soiling of materials;
  - (e) Further development of modelling and mapping procedures by supporting regular updates of the *Manual on Methodologies and Criteria for Modelling and Mapping*

*Critical Loads and Levels and Air Pollution Effects, Risks and Trends*<sup>2</sup> (chapter IV) in collaboration with the ICP Modelling and Mapping of Critical Levels and Loads and Air Pollution Effects, Risks and Trends describing procedures for mapping corrosion and soiling effects on materials;

(f) Further development and improvement of methodologies for measuring air pollution effects of materials by co-operation with external (non-Convention) relevant standardisation bodies, such as the ISO Technical Committee 156 Corrosion of metals and alloys;

(g) Carry out other tasks assigned to it by WGE and the Executive Body.

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<sup>2</sup> A first version of the Mapping Manual was published in 1993. It has since been updated three times: in 1996, 2004 and again in 2016. The full text of the 2016 version is available as online, by chapter, from the website of the International Cooperative Programme on Modelling and Mapping of Critical Levels and Loads and Air Pollution Effects, Risks and Trends: [http://icpmapping.org/Latest\\_update\\_Mapping\\_Manual](http://icpmapping.org/Latest_update_Mapping_Manual).