

Taking international air pollution policies into the future

Main Conclusions from the Saltsjöbaden V Workshop 24-26 June 2013

Introduction

On 24-26 June 2013 more than 130 leading experts and scientists, policy makers and negotiators, international organisations and industry met at an international workshop in Gothenburg, Sweden in order to discuss and outline future directions in air pollution science and policy. The workshop was organised by the Swedish Environmental Protection Agency and the IVL Swedish Environmental Research Institute, in collaboration with international organisations such as the Convention on Long-range Transboundary Air Pollution (CLRTAP), the European Commission, Global Atmospheric Pollution Forum and the Nordic Council of Ministers.

The workshop set the scene for future international and global air pollution policies and discussed possibilities to achieve improved air quality for the protection of health, ecosystems and materials and at the same time ensure benefits for climate change, biodiversity and other related policy areas. The workshop provides input to international policy processes with respect to both air pollution and climate change. The discussions at the workshop built on a number of on-going and recently finalised international activities such as the CLRTAP Long Term Strategy, the on-going review of the EU Thematic Strategy on Air Pollution, and several initiatives in relation to Short Lived Climate Pollutants (SLCP). Topics of particular interest were combined air pollution and climate change policies, actions for the control of emissions of reactive nitrogen, health impacts of air pollution, future effects-based international air pollution policies and the roadmap for going from regional to global air pollution policies. Future work on POPs and heavy metals under CLRTAP and other conventions was also discussed.

The key conclusions and recommendations are presented below. These are the outcome of discussions during the meeting in seven topical workshops followed by a general discussion and agreement in plenum. Each recommendation is followed by a “tag” suggesting the most relevant organisation(s) for the recommendation. The key to the abbreviations is given after the recommendations.

Further information on the workshop including conclusions and recommendations from the Working Groups can be found at <http://www.saltsjobaden5.ivl.se/>. For questions and additional information, please contact Peringe Grennfelt (peringe.grennfelt@ivl.se), Anna Engleryd (anna.engleryd@naturvardsverket.se) or John Munthe (john.munthe@ivl.se).

General conclusions and recommendations

1. Future direction of policy and science

- Air quality has improved during the past 30 years, but there is still work to be done to protect human health, ecosystems, crops, cultural heritage and to contribute to short-term mitigation of climate change. The effect-based approach – that has underpinned the Convention on Long-Range Transboundary Air Pollution to date – should remain the basis for further steps. (EB)
- Further emission reductions, especially from diesel cars, non-road mobile machinery and domestic coal, wood combustion and agriculture are needed to reduce long-term population exposure. (EB, European Commission)
- It is crucial that the latest proposed European mobile standards (Euro-6 and VI) will work as planned under real-world driving conditions. A process related to the new driving cycle and associated testing is underway in Europe. Member States will ultimately decide on the real world issue, based on a proposal from the Commission, but should ensure that their views are properly represented throughout the consultation process, in which views from industry currently tend to dominate. (EU Member States, European Commission, EB)
- The revised National Emissions Ceilings (NEC) Directive (proposal scheduled for adoption by the European Commission in 2013) could be used as a first step towards addressing emissions of the ozone precursors methane and carbon monoxide for both air quality and health purposes, at the same time benefitting near term climate. This can be followed by similar actions on a broader international scale. (European Commission, EB, Arctic Council, CCAC)
- Emissions data on Black Carbon and knowledge of its impacts on health and climate should be further improved. This requires specific action by the Task Forces on Emission Inventories and Projections and Hemispheric Transport of Air Pollution as well as the Task Force on Health. (EMEP, TFEIP, TFHTAP, TFH, scientific community)
- In order to move towards improved protection of ecosystems from air pollution (in particular eutrophication and ozone impacts), development of indicators complementing critical loads and critical limits could be investigated. This includes air quality limit value for ammonia and regional emission ceilings for nitrogen and indicators relating nitrogen concentrations and deposition or ozone fluxes to impacts on ecosystems (such as “no net loss of biodiversity”). Such indicators are required for impacts assessments carried out in complement to analyses provided by the GAINS model. (EB, TFRN, WGE)
- A number of paths may be considered and further explored by the research community in order to assess benefits of air pollution reductions. These include the evaluation of ecosystems improvements and the benefits these entail for human health and the provision of ecosystems services. (WGE, EMEP, TFH, TFIAM, ICP M&M and other ICPs)
- The contribution to the reduction in air pollution and greenhouse gas emissions of structural changes in transport, energy and food supply as well as behavioural change will become increasingly important in the future. Energy efficiency measures, introducing renewables and

switching from coal to gas are examples of structural changes. Further work is needed to explore ways to encourage sustainable and healthy lifestyles. (WGSR, TFIAM, TFRN)

- The integrated scientific approach including emissions, monitoring, modelling, integrated assessments, and policy scenario evaluations is essential and specific to the CLRTAP. It provides valuable support to further policy development and implementation, in cooperation with other conventions and programs. Improved emission inventories are needed in order to improve the scientific basis for policy development. Increased cooperation with EECCA countries on science and implementation is of high priority. (EB, EMEP, WGE, TFEIP, and other TFs/ICPs as appropriate)
- For both HM and POP, human and ecosystem exposures occur via a number of pathways and atmospheric emissions and long range transport contribute in varying degrees to the exposure either directly or indirectly (e.g. via uptake in food chains in remote areas). New scientific evidence of human health effects at low dose levels of HM and POP warrants further policy action to reduce atmospheric emissions and long-range transport. The unique characteristics of CLRTAP among the various international conventions and programs are the strong links between science and policy as well as the integrated scientific approach. CLRTAP should develop cooperation with other international conventions, policies and programs focussed on regulation, monitoring and assessment. In this context, CLRTAP can provide an infrastructure and a mechanism by which parties can meet many of their obligations to other international agreements (EB, WGSR, EMEP, WGE)

2. Communication

Communications from the International Air Pollution community must be responsive to the broad mix of outputs generated and the diversity in the assimilative capacities of the various recipients. Communication may relate to the status of air quality in a given area, international emission trends, local policy options and the outcomes of policy interventions. The respective audiences and relevant messages are varied and CLRTAP (including its subsidiary bodies) could together with other international bodies play a more pivotal and effective role in the design and delivery of messages from the wider international air community to all stakeholders within and beyond present networks.

- The meeting recommends the EB and the CLRTAP secretariat to consider its communication strategy, redesign its webpage and establish a position for a communications officer to manage internal communications and support external mainstream messaging efforts. (EB, CLRTAP secretariat)
- An effective communication strategy requires coordination of communication between Convention bodies, with other international conventions as well as with other target groups outside the Convention, such as policy makers and the general public. This may require information to be tailored for the target groups and presented via different media. (EB)
- In regards to conveying messages to the public and politicians internationally, it is recommended to involve professional support to ensure that there is sustained mainstream media attention for air related issues through a variety of media (print, online, radio, television) and on all scales (e.g. local, national). This regular messaging can change the public perception of air quality, make adverse air quality impacts a reputational risk for industry, and so change the political context for regulation. (EB, European Commission, EEA, national administrations etc.)

- The achievements and potentials of CLRTAP and the role played by an integrated scientific approach should be actively promoted. The synthesized messages of these scientific efforts must be made easily understood for the public. (EB and CLRTAP subsidiary bodies)

3. Outreach to the global scale

Concerted international action is crucial for the reduction of population exposure to long-range air pollution such as ozone and fine particles and for reducing damage to ecosystems. Due to the synergies between air pollution and climate change, air pollution control could effectively contribute to the mitigation of short-term and local warming.

- CLRTAP should take steps to open the Convention to parties outside the UN ECE, in recognition of the general character of the obligations of the Convention and to facilitate building upon the work of TF HTAP. (EB and TFHTAP)
- CLRTAP should initiate discussions with other regional networks and relevant bodies on the appropriate elements of a Global Framework for Cooperation of Air Pollution. The intention would not be to have a global negotiating organisation but rather an agreed process for information sharing, policy coordination and to enhance capacity for managing transboundary and local air pollution issues. (EB, UNEP, GAP Forum)
- CLRTAP should invite the International Law Commission (ILC), established by the United Nations, to continue exploring the scope for a '*Law of the Atmosphere*', which would facilitate integrated action on climate change and tropospheric air pollution. (EB, UNEP, UN ILC)
- Scientific cooperation with other conventions and programs working on different aspects of air pollution, e.g. UNEP, the Arctic Council, AMAP, the Stockholm Convention and the Minamata Convention should be developed and co-funding should be sought where appropriate. (EB, EMEP, WGE, UNEP, Arctic Council, AMAP, Stockholm Convention, Minamata Convention, CCAC, European Commission)
- An ad-hoc group with representatives for WGE, EMEP, WGSR should be formed to address potentials and actions to enhance cooperation and synergies on POPs and HM with other conventions, programs and policies, and also to evaluate possibilities for funding of these activities (EB).
- Climate change policy makers and national IPCC representatives from countries interested in the linkages between air pollution and climate change should propose the compilation of a special report on air pollution and climate change that would engage the IPCC, CCAC, and the air pollution community both globally and locally, including subsidiary bodies of CLRTAP. (National governments, IPCC, CCAC, EB, EMEP, WGE)

4. Outreach to the local scale

The meeting identified the importance of emission control measures on the local scale both with respect to urban and agricultural areas and encourages:

- Relevant bodies under the Convention to involve experts from local and city administrations, NGOs and experts from industry or agriculture in their scientific network. (EMEP, WGE, TFIAM, TFH, TFRN)
- The Working Group on Strategies and Review, the European Commission and the parties to further develop standards for large animal production units and for products (Euro standards, Ecodesign, Non Road Mobile Machinery and machinery for manure application to agricultural land), that would facilitate meeting air quality limit values locally and halting the loss of biodiversity in designated nature protection areas, i.e. Natura 2000 areas. (WGSR, European Commission, national governments)
- Local and national governments to reduce exposure of urban population to air pollution with additional incentives to reduce emissions from local combustion sources. Fuel switching, retrofitting and/or early replacement of vehicles and small-scale combustion installations, as well as incentives to reduce car mobility and energy use would have priority. (European Commission, national governments, local administrations, WGSR)
- Local and national governments to develop reduction plans to bring nitrogen deposition, and ammonia and nitrogen oxides concentrations over designated nature protection areas, such as Natura2000 sites, down towards critical loads and levels. (local administrations, national governments, European Commission)

5. Short and long term ambitions for the European Union

The meeting advises the European Commission in its present work on the Thematic Strategy on Air Pollution and related revisions of directives to consider:

- Including in the new NEC Directive a regular interim review of progress towards the emission targets (of the NEC Directive and the emission obligations under the revised Gothenburg Protocol) and require a scheduled national assessment process with Member States reporting on projected emissions and compliance progress. This may trigger additional action or infringement if a country fails to respond or fails to take action on persistent poor performance. (European Commission)
- Making optimal use of the available technical abatement potential in 2025 and move towards long term 'no significant impacts on health and ecosystems' by 2030 at which time it should be possible to incorporate the potential co-benefits from the climate and energy package and the Common Agricultural Policy revision. (European Commission)
- Stimulating technological innovations needed for cleaner air. (European Commission)

6. Capacity-building and information infrastructure

International air pollution policies have, since the trans-boundary transport of pollutants was recognized, been based on scientific evidence and long-term monitoring and these activities are still of sustained and significant importance for the policy work. The meeting advises:

- Parties to sustain the monitoring programs under EMEP and WGE with a viable number of monitoring sites. (parties to the CLRTAP, EMEP, WGE)

- The European Commission to require ecosystem monitoring under the NEC Directive, which should build on existing monitoring systems. (European Commission)
- Parties to maintain the scientific capacity within the CLRTAP and enable national experts and scientists to actively participate in its scientific network as well as the financing of research and monitoring activities. This should also include the awareness of air pollution and the improvements of technical capacities in the EECCA countries. (parties to the CLRTAP)
- Scientific bodies and national and European policy makers to promote the prioritisation of topics relevant for CLRTAP in available (co-)funding programs (e.g. LIFE, Horizon 2020, Structural Funds). (European Commission, national governments and agencies)
- CLRTAP and its subsidiary bodies and parties to engage with other international and national organizations through the Group on Earth Observations (GEO) Air Quality Community of Practice to take advantage of the progress in information technology to improve information access and exchange within the Convention and the broader global air quality community. (EB, EMEP, WGE, TFHTAP)

Abbreviations

AMAP	Arctic Monitoring and Assessment Programme, a working group under the Arctic Council
CCAC	The Climate and Clean Air Coalition to Reduce Short-Lived Climate Pollutants
CLRTAP	Convention on Long-range Transboundary Air Pollution
EEA	European Environment Agency
EB	Executive Body of the Convention on Long-range Transboundary Air Pollution
EECCA	Eastern Europe, Caucasus and Central Asia
EMEP	Steering Body of the European Monitoring and Evaluation Programme under CLRTAP
GAP Forum	Global Atmospheric Pollution Forum
HM	Heavy metals
Horizon 2020	The EU Framework Programme for Research and Innovation 2014-2020
ICPs	International Cooperative Programmes under WGE
ICP M&M	The International Cooperative Programme on Modelling and Mapping of Critical Levels and Loads and Air Pollution Effects, Risks and Trends
ILC	The International Law Commission, established by the UN
IPCC	Intergovernmental Panel on Climate Change
LIFE	The EU's financial instrument supporting environmental and nature conservation projects
Natura 2000	An EU-wide network of nature protection areas established under the EU Habitats Directive
POP	Persistent Organic Pollutants
TFEIP	Task Force on Emission Inventories and Projections under EMEP
TFH	Task Force on Health under WGE
TFHTAP	Task Force on Hemispheric Transport of Air Pollution under EMEP
TFIAM	Task Force on Integrated Assessment Modelling under EMEP
TFRN	Task Force on Reactive Nitrogen under WGSR
WGE	Working Group on Effects under CLRTAP
WGSR	Working Group on Strategies and Review under CLRTAP
WHO	World Health Organization