



The GLOBAL ATMOSPHERIC POLLUTION FORUM was established last year, on the initiative of the International Union of Air Pollution Prevention Associations (IUAPPA) and the Stockholm Environment Institute (SEI), to support co-operation and development of common practice among scientific and policy networks concerned with the abatement of air pollution at the regional scale.

While the main means of communication will be the website, it is intended that the Forum Newsletter, to be published four times a year, should report upon its work and more generally provide a means by which different regional networks can exchange information on their activities and work programmes and on wider scientific and policy issues of common interest. This first edition outlines the Forum's work over its first year and includes introductory briefings on the current work of some of the participating networks.

Editor's Introduction

The Forum emerged from a widespread recognition among regional air pollution networks of the timeliness and merit of closer consultation and co-operation, but, inevitably, without any clear and common view of the best practical way forward.

IUAPPA and SEI concluded that, to start the ball rolling, it might be sensible to initiate activity in three areas:

1. promoting a series of informal inter-regional dialogues to encourage links and debate among regional networks on closer co-operation;
2. initiating a programme of collaborative projects to develop technical links and help address common issues;
3. beginning the process of fostering policy debate on opportunities for progress at the hemispheric and global scales, initially on the ways in which the LRTAP Convention might play a role.

These themes have dominated the first year and are reported in this Newsletter. The hope is that, from this foundation, the initiative can now move back to the Networks, with their collectively taking ownership of the process and ensuring that it evolves in a way which best serves their common interests. Before long it is hoped to establish an expanded secretariat and more formal governance structure.

The usefulness of the process will depend largely on a common recognition of the limitations and the priorities in regional air pollution control. The limitations are clear enough—the need to ensure that the regional scale is not artificially separated from the local and global scales, and that there is recognition of differences in its character and relative importance in different areas of the world. We hope that the first stage of work, and most notably the inter-regional dialogues, have also allowed common priorities to begin to emerge – including the need to develop scientific capacity in areas where it is weak; the value of harmonization between regions in some basic data collection and assessment processes; the need to promote scientific linkages within the global scale and with work on climate change, without imperilling the necessary independence and effectiveness of regional activity. We hope that the reports of last year's regional dialogues provide pointers on the ways forward on these and other key issues, and an enhanced basis for effective common activity in the next stage of the Forum's development.

Kevin Hicks, Editor

FIRST CO-OPERATIVE PROJECT ANNOUNCED:

Co-ordination of Emission Inventories

Major new project to be funded by BOC Foundation and US Environment Protection Agency

Progress on regional co-ordination of air pollution control has so far been limited by weakness in the compilation of emission inventories which provide the essential building blocks for effective air quality management.

A new research and demonstration project, initiated by the Forum, aims to strengthen international co-ordination and provide the basis for more effective abatement policies at national and regional scales. Funded by the BOC Foundation and the US Environmental Protection Agency, the project will bring together the main regional air pollution networks to compare current approaches to emission inventory preparation and develop a consensus on best practice.

The ultimate aim is to produce an international framework for compiling transboundary air pollutant emissions inventories in a consistent and transparent format. The project, co-ordinated by SEI, will involve collaboration with emissions inventory experts from Europe (the Centre for International Climate and Environmental Research, CICERO) and from regional networks in southern Africa, South Asia and South America.

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2005 Inter-Regional Dialogues – Some Emerging Conclusions

The Forum held meetings in Prague, Tokyo, Istanbul and New Delhi attended by scientists and policy makers associated with the various regional networks and others interested in regional air pollution. While the discussions ranged widely one key theme was the prospects for progress at the hemispheric scale, prompted by the recent LRTAP Convention initiative. On this, and other issues, a number of key themes have begun to emerge. While not formally constituting conclusions, either of the meetings or of the Forum itself, they may point to the directions in which some consensus may emerge.

The Hemispheric and Global Background

- The orientation of LRTAP policy is likely to change, progressively, from a focus on hotspot problems towards a more general 'greying' of the northern hemisphere.
- Continuously increasing aircraft and ship emissions, and other aspects of globalisation, will require new patterns of global regulation.
- The interactions of climate change and pollution – and their common origin in energy policy – is crucial, in particular the uncertainties over radiative forcing and the effect of black carbon. However, while closer scientific linkage is essential, closer linkage at the policy and negotiating level, at this stage seems unlikely to be helpful.

Air Pollution Science at the Regional and Hemispheric Scales

- There is increasing consensus that the hemispheric scale is now a relevant scale for co-ordinated assessment and abatement strategies, but further progress is likely to be heavily dependent on the further consolidation of the scientific base at regional scale.
- Advances in satellite imaging and remote sensing can make a major contribution to monitoring capabilities, but is unlikely to reduce the need for ground-level monitoring. There is an underlying need to link global databases more effectively to regional knowledge.
- There is an increasing need to focus on the interactions of the local, regional and global scales of analysis. This is also reflected at the policy level, in that local measures with have knock-on effects at the regional and global scales.
- There is a case for addressing five or six pollutants at the hemispheric scale, but this may prove unrealistic. The priorities should probably be ozone and aerosols/particles.
- While improvements in monitoring and in modelling capabilities are important, progress on hemispheric pollution will depend in particular on increased co-operation and convergence of approach on emission inventories.
- Experience so far on model inter-comparison at regional and

hemispheric scales shows an encouraging consistency, both between observed and modelled outcomes, for ozone, but less so for particulate matter. This needs further attention.

Towards New Co-operative Machinery?

- Co-operation among existing regional networks is the essential first step for a better scientific understanding of hemispheric pollution and for any consideration of abatement possibilities. However, these networks differ substantially in their experience and priorities so new co-operative arrangements may be needed.
- Much the greatest volume of experience lies with the LRTAP Convention. When collective abatement strategies are finally addressed it will be important to draw on this experience:
 - It is essential to preserve flexibility. The priority is the progressive emergence of consensus, which avoids the agenda appearing to be driven by any one group of nations;
 - Equally it should not be seen as important that every member ratify every agreement. That allows more cohesion and a higher ambition level;
 - 'Top down' approaches led by the Secretariat or a small group of countries are unlikely to be successful. A broad-based 'bottom-up' approach is needed which can nevertheless preserve appropriate ambition levels, a clear mission and the confidence and optimism of the participants;
 - Because of their complexity some of the LRTAP Convention's recent protocols are proving difficult to monitor and to implement, suggesting that at hemispheric scale best available technology (BAT) may initially prove a more useful co-operative control approach.
- The LRTAP Task Force on Hemispheric Transport of Air Pollution can make a significant contribution because of its focus on consensus-building, avoidance of political controversy and sound science.
- In the medium term a helpful path may be to encourage countries to assume differentiated responsibilities and subsequent commitments according to their different priorities and capabilities. In the meantime there are important measures that individual regions need to take in the wider hemispheric interest. To mitigate their impact on Europe the United States and Canada should play a full part in the review of the Gothenburg Protocol. The LRTAP Convention and the EU should begin to address their impacts on North Africa and Central Asia. India, China and other rapidly industrialising countries should pursue BAT to mitigate the environmental damage resulting from their economic growth. In each case such measures will reduce pollution at the local and national scales and generate an economic benefit.



Representatives from EANET, the LRTAP Convention and the Forum at the Inter-Regional Dialogue in Tokyo, Japan, August 2005.

NEWS FROM THE NETWORKS

APINA Widens its Links in Africa

The Air Pollution Information Network for Africa (APINA), that focuses most of its activities in Southern Africa, has recently started to widen its links throughout the continent. The latest initiative on air quality management (AQM), involving the whole of sub-Saharan Africa, recognises the fact that Africa's urbanization rates are the highest in the world and that the air pollution emissions associated with this are increasingly detrimental to the population, especially vulnerable groups.

Major concern surrounds the expansion of car fleets (many have doubled in the last ten years) coupled with poor maintenance standards, poor infrastructure, use of poor quality fuels and a lack of enforceable air quality standards. Other sources such as industrial pollution, waste burning and energy use by households also contribute.

To address these concerns, APINA together with UNEP, Nairobi (within the framework of the Partnership for Clean Fuels and Vehicles), World Bank, SEI and USEPA, are jointly organizing a Conference called "Better Air Quality for African Cities", to be held on July 26-28 2006 at UNEP Headquarters in Nairobi, Kenya.

The Conference will bring together representatives from non-governmental organisations, government, private sector and international organizations and aims at sensitizing decision makers in Africa on the need to address the poor urban air quality in Africa. The Conference will include a Policy and a Ministerial Session. These will be preceded by a training programme on the basic principles of better air quality management. The Conference will raise the awareness and will develop an agenda for action.

Find out more about APINA activities at: <http://www.york.ac.uk/inst/sei/rapid2/apina/apina.html>

IANABIS Takes Shape

IANABIS, the Inter-American Network for Atmospheric/Biospheric Studies, with a Latin-American focus, was created in response to the findings of a US National Research Council committee on Atmospheric Chemistry, which was convened to report on the adequacy of existing measurements and plans for the future to study the changing chemical composition of the atmosphere.

The approach of IANABIS is to:

- Establish a network of aerosol monitoring stations that covers a continuous landmass from Antarctica through to the Arctic.
- Study the sources, sinks, atmospheric transportation, and distribution of aerosols.
- Characterize chemical, optical, and microphysical properties of atmospheric aerosols.
- Study aerosol effects on cloud formation, precipitation, regional hydrological cycles.
- Establish multidisciplinary research centers for Atmospheric/Biospheric Studies across Latin America.

Capacity Building

Due to its multidisciplinary nature IANABIS will provide unique opportunities to train and educate students and young scientists of Latin American countries on fundamental aspects of and interactions between atmospheric chemistry, naturally and anthropogenically induced aerosol emissions, climate change, land use change, and the human dimension.

<http://eaps.mit.edu/megacities/ianabis/>

Join IANABIS now at their new updated website: <http://www.ipicyt.edu.mx/IANABIS/>

Convention on Long-Range Transboundary Air Pollution (CLRTAP)

Among major items considered at the December meeting of the Executive Body of the Convention were the initiation of the Review of the Gothenburg Multi-Pollutant Protocol, a report on the Task Force on Hemispheric Transport of Air Pollution, and a proposal, on the initiative of the Forum, to extend the Convention's programme of 'outreach' to other regional networks.

In response to a report from the Forum, presented by IUAPPA, the Executive Body agreed to explore the steps needed to lift the restriction of membership to UNECE countries. At the same time they agreed to seek discussion with other regional air pollution networks on the steps they could jointly take to share expertise and provide a stronger framework for addressing hemispheric and global air pollution issues.

In its presentation the IUAPPA had argued that new or strengthened institutions were likely to be required to effectively tackle pollution at the hemispheric and global scales. It was too soon to judge how this might best be achieved, but opening the LRTAP Convention to unrestricted accession was one possibility. It would therefore be sensible to consider removing the restriction to UNECE countries, which was in any case an historical accident not envisaged when the Convention was drafted.

The Executive Body agreed to ask the Secretariat for a report and proposals for its next meeting.

GAINS Africa and Latin America

The European Commission recently commissioned a project to extend the RAINS-Asia model for India and China with the 6 greenhouse gases, the GAINS-Asia model (www.gainsmodel.org). The Netherlands Government is meanwhile seeking support for an equivalent programme for Africa and Latin America, to be launched at the CSD 14.

GAINS models aim to: raise awareness of the potential benefits from synergies with other policy issues that include elements of the economy, society and environment; promote policies that tackle both air pollution and climate change; and, at the same time, actively to address regional development.

iLEAPS – <http://www.atm.helsinki.fi/ILEAPS/>

The Integrated Land Ecosystem – Atmosphere Processes Study is the 10 year land-atmosphere core project of the International Geosphere-Biosphere Programme (IGBP). The scientific goal is to provide understanding how interacting physical, chemical and biological processes transport and transform energy and matter through the land-atmosphere interface. The project studies interactions and feedbacks from the cell level to global scale. Times scales range from diurnal to centennial, past to future. iLEAPS encourages international and cross disciplinary collaboration, particularly involving scientists from the developing countries.

Malé Declaration Enters Major Third Phase

Air Pollution Monitoring: Strengthening the monitoring capacities based on common methodologies and protocols established during Phase II at the national level will be one of the major tasks for the implementation of Phase III of the Malé Declaration (2005-2008). Phase III activities will promote a situation where the

monitoring network is capable of monitoring rainwater as well as air quality (TSP, PM₁₀, NO₂, SO₂ and O₃), across the monitoring stations in each of the eight Malé Declaration countries (Bangladesh, Bhutan, India, Iran, Maldives, Nepal, Pakistan, Sri Lanka).

Analysis and impact studies: National capacities for studying the impacts of transboundary air pollution will be enhanced through case studies and training programmes. Specific activities include: the monitoring programme initiated during phase II; establishment and maintenance of a regional database on air pollution deposition for the Malé Declaration; promotion of research and data analysis at the National Implementing Agencies (NIAs) and staff exchange programs; study of the impacts of air pollution on health, corrosion of materials and on agriculture; and the development of a regional emission inventory and integrated assessment model.

EANET Launches Report for Policy Makers

Recognizing the increasingly important role of policy makers, a report for policy makers was launched by the Acid Deposition Monitoring Network in East Asia (EANET) at the Seventh Session of the Intergovernmental Meeting. Her Excellency Ms. Yuriko Koike, Minister of the Environment of Japan, gave the opening remarks. Dr. Klaus Toepfer, Executive Director of UNEP, presented the keynote speech.

2006 and Beyond: The Forum's Plans and Priorities

Over the next few months the Forum Secretariat will be consulting members and associated bodies on its programme and priorities for the next two years. It will also be seeking the guidance of the International Advisory Committee established last year. Some key commitments are however already clear:

CSD14

At this year's meeting of the Commission on Sustainable Development in May the Forum hopes to draw regional air pollution organisations together for a major side event highlighting the opportunities and challenges now emerging in this area, and their importance for sustainable development.

Inter-Regional Dialogues

The core of the Forum's role is to encourage debate and the development of international consensus on how international policy and regulatory systems need to develop effectively to address air pollution at the regional scale and above. So it remains important to continue the programme of inter-regional dialogues, following this year's meetings in Prague, Tokyo, Delhi and Istanbul.

Discussion Paper on Inter-Regional Co-operation

Meetings so far have yielded a number of broad conclusions on which there is a high level of agreement among individuals and organisations associated with the Forum. Some of those are reflected in the summary note on page 2 of this newsletter. It seems sensible therefore now to try to pull these together in a discussion paper which can contribute further to debate and the development of consensus. Our aim is that this should be available to be launched as a basis for consultation at the CSD meeting in May.

Supporting Progress on Hemispheric Pollution

The Forum's submission to the Executive Body of LRTAP – on widening the Convention and other steps to facilitate progress on hemispheric pollution – played an helpful catalytic role. The

Over the years, significant achievements such as monitoring results which show the state of acid deposition and its effect, improvement of monitoring capacity of participating countries, unified monitoring methodologies and QA/QC activities have been made through EANET activities. In view of this, the report for policy makers requests that they may consider the possibility to further strengthen the basis of EANET with an appropriate instrument.

ASEAN Agreement on Transboundary Haze Pollution

In June 2002, ASEAN (Association of Southeast Asian Nations) concluded a regional agreement on haze, which entered into force on 25 November 2003, following the deposit of the sixth instrument of ratification by the Government of Thailand. The Agreement contains provisions on monitoring, assessment and prevention, technical cooperation and scientific research, mechanisms for coordination, lines of communication, and simplified customs and immigration procedures for disaster relief.

The agreement, signed by the 10 member countries of ASEAN, is the first such regional agreement that binds a group of contiguous states to tackle transboundary haze pollution resulting from land and forest fires. As of July 2005, seven countries (Brunei Darussalam, Malaysia, Myanmar, Singapore, Thailand, Viet Nam, Lao PDR) have ratified the Agreement.

lead role here now lies with the governmental bodies themselves. But it will be important for the Forum to continue to encourage interest in this area and to help develop a climate within which further progress on this issue can be made.

Strengthening Collaboration: (1) Emission Inventories

The first phase of the work on harmonizing emission inventories between regional networks is expected to be complete in July, but it is important to ensure that the work is monitored and carried forward by other bodies, or, if necessary by the Forum itself.

Strengthening Collaboration: (2) Further Options

Further opportunities for enhancing practical collaboration between regional groups have meanwhile emerged. There is potential to extent existing RAPIDC (Regional Air Pollution in Developing Countries) networks on corrosion impacts, CORNET, and impacts to crops, the Air Pollution Crop Effect Network (APCEN) to operate on a more global scale. In addition, the AMIS (Air Management Information System) framework for human health impacts, previously coordinated by WHO, also has the potential to form the basis of a global network.

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CALL FOR INFORMATION

The Forum Secretariat would welcome news on your regional networks.