



IUAPPA Newsletter

The International Union of Air Pollution Prevention
and Environmental Protection Associations

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The 2007 World Congress and the Challenges and Opportunities for 2008

By Richard Mills, Director-general

World Clean Air Congresses need broad, unifying themes which can embrace the whole range of air and environmental concerns of IUAPPA members. In Brisbane, 'Partnerships' admirably provided this.

But at any one time there are always a few issues which are crucial and on which, in a sense, our world turns. The real challenge is to use the Congress to identify and articulate these. On possibly the three most significant atmospheric policy issues of the day, our CASANZ colleagues admirably met this challenge, with the help of three leading members of the Union's International Advisory Panel.

Understanding the underlying mechanisms for the health effects of particulates is the central intellectual conundrum of our day and crucial to the direction of air pollution policy. Joel Schwarz's contribution, followed by the IUAPPA/Global Forum special session on particles, will have given all of us the sense that we were at the very frontier of knowledge and policy.

On pollution levels and abatement policies we know that the future course of vehicle emissions will be of paramount importance. Getting the right solutions is critical. The cleaner fuels and technologies are available, or potentially available, but the policy choices and implementation pathways are challenging. No one could have articulated these better than Alan Lloyd.

But it is, arguably, the interaction of climate change and air pollution which will prove the most significant issue of all. As Ram Ramanathan made clear, there are crucial issues on which the now separate climate and air pollution communities must converge over the next few years, if we are fully to grasp the potential extent of climate change and be able to find the most realistic and cost-effective options for mitigation and adaptation.

All these themes will be relevant for Vancouver in three years time, but what, meanwhile, are the opportunities which 2008 presents?

I would like to draw the attention of members to three, in particular:

- Towards the end of the year, the Global Atmospheric Pollution Forum, with the support of the Swedish Co-operative International Development Agency, will be holding a major international conference – probably in Shanghai - on Co-Benefits of pollution abatement and CO₂ reduction, with particular reference to the needs of developing regions. This will be a major event on a critical issue, and other members of the Forum will be looking to IUAPPA, as its founding member, to play a full part.
- Under the theme 'Future Transport Technology for a Carbon Constrained, Energy Hungry World' the Brisbane session of our Seminar Programme on Air Quality and Vehicle Emissions in Mega-Cities reviewed the conclusions and implications from earlier meetings and explored possible future directions. Plans for the next seminar – which we hope to hold in the Middle East (one of the few regions on which the programme has not yet focussed) – are now well advanced and that meeting is also likely to be held before the end of 2008.
- The special session in Brisbane on particulates was invaluable in helping to clarify issues related to the regional variation in sources, composition and impacts. There is a remit from the International Board to follow up this work. We shall need to look to many experts within IUAPPA on this, not just those who were able to contribute to the discussions in Brisbane.

All of these themes will come together in our next regional conference, to be held in October, in South Africa at the invitation of NACA. This is an important moment for the development of Air Quality Management in South Africa, as major national systems are about to be introduced. We hope to be able to attract experts in many of the key aspects of air quality management, but also – subject to the support of IUAPPA members – to contribute a major session reviewing AQM systems in different countries and drawing out some of the lessons of the last 15 years.

Our South African meeting will also allow us to pursue the key issues of Brisbane. On transport we hope to link with the UNEP

Low Sulphur Fuels Initiative. On long-range transport of pollution we have the opportunity to link up with our Forum colleagues in the Air Pollution Information Network for Africa. There will also be the chance to look at the options for effectively linking national and local strategies on air pollution abatement and greenhouse gas reduction.

All this represents a demanding agenda, but at least we shall not be short of opportunities to pursue the central objectives of the Union in relevant and effective ways.

Some 2008 IUAPPA Highlights

The 2008 IUAPPA annual meeting will be held during the week of 12 October near the Kruger National Park in South Africa. The meeting will be sponsored by the National Association for Clean Air in South Africa.

IUAPPA will co-host a climate change/air pollution co-benefits conference with the European Federation of Clean Air and Environmental Protection Associations (EFCA). No firm date is yet set as of publication time, but initial planning is targeting the meeting for late 2008 in Strasburg, France.

The sixth meeting of the International Seminar on Air Quality and Megacities will be held in late 2008.

The World Atlas is scheduled for publication in February 2008.



Gavin Fisher Addressing the World Congress

MESSAGE FROM THE INCOMING PRESIDENT

Each generation of IUAPPA leadership has had to take on its own unique set of scientific and policy issues. Those facing us have never been greater. Over the next three years, the international community will face critical environmental and economic challenges that include sustainable development, climate change, and poverty.

Our IUAPPA member organizations are poised to play an important role in addressing these challenges around the globe. I look forward to working with all of the IUAPPA member organizations over the next three years as we help the world's scientific, policy and political leaders find solutions to these important problems. In particular, I believe that how we interact with the global climate change community to develop cost-effective co-benefits approaches – addressing both greenhouse gases and conventional pollutants – will be critical.

I expect to spend much of my time as president focusing on ways to help strengthen IUAPPA by working to expand its membership and building on the historic IUAPPA foundation that includes the Megacities Seminar Programme and the Global Atmospheric Pollution Forum. I look forward to working with all of you and encourage you to become active participants in the Union as we tackle the challenges of our day and work to build a stronger IUAPPA.



SUCCESS IN BRISBANE: THE 14TH WORLD CLEAN AIR AND ENVIRONMENTAL PROTECTION CONGRESS



Opening of the 2007 World Congress

Over 450 delegates from 29 countries attended the 14th IUAPPA World Clean Air and Environmental Protection Congress which highlighted solutions and challenges posed by air pollution and climate change. Hosted by the Clean Air Society of Australia and New Zealand (CASANZ), the Congress was held at the Convention and Exhibition Centre in Brisbane, Australia, from 9 – 13 September 2007. This year's theme was "Clean Air Partnerships: Coming Together for the Future."

There were 45 Congress sessions covering a broad range of topics, including air quality and health; transport emissions; modelling; particle measurement; emission inventories; rural/urban partnerships; energy sources and air quality; urban air quality; and indoor air pollution. In total, 215 oral papers were presented and 35 poster papers displayed at the Congress.

Building on the outcomes of the London World Congress of 2004, that underlined the interaction of atmospheric pollution and climatic change problems, the Brisbane Congress highlighted the urgency of a better integration of research and policies on these two issues.

The Congress featured a number of outstanding keynote addresses and plenary sessions. These included:

- Partnership Initiatives Toward Sustaining our Atmosphere by Dr. Ian Lowe (Australian Conservation Foundation);
- The Role of Transportation Related Emissions in Air Pollution, Public Health

and Climate Change: Past Lessons for Future Actions by Dr. Alan C. Lloyd (International Council on Clean Transportation);

- Atmospheric Brown Clouds, Greenhouse Gases and Climate Change: Implications for the Water Budget of the Planet by Dr. Veerabran Ramanathan (University of California);
- Engagement of Communities, the Private Sector and Local Governments Toward Development of Policies and Funding of Initiatives for Clean Air in Asia by Ms. Bebet Gozun (Philippines);
- The Challenge of Regional, Hemispheric and Global Air Pollution by Mr. Richard Mills (Director-general, IUAPPA) and Dr. Johan Kuylenstierna (Stockholm Environment Institute, York University);
- Global Warming by Prof. Andy Pitman (University of New South Wales); and
- Genes to People to Communities: Who is Susceptible for Air Pollution? by Dr. Joel Schwartz (Harvard University).

The Congress featured three special sessions sponsored by the Global Atmospheric Pollution Forum. They included 1) a dialogue on Inter-Regional Problems of Airborne Particles; 2) a workshop on Future Transport Technology for a Carbon-constrained, energy-hungry world; and a plenary session on Tackling Regional and Global Air Pollution. Summaries of these sessions can be found in this newsletter.

The Congress also included a number of interesting workshops and training courses on:

TASK FORCE TO REVIEW UNION'S "ROLE, STRUCTURE AND MEMBERSHIP"

Over recent years IUAPPA has changed in various ways, moving from an organisation largely focused on a triennial congress and intervening annual meetings, to one which has sought to act in broader ways in pursuit of its members' core values and objectives. These include some of the major air pollution issues of the day, including the problem associated with mega-cities and those wider problems of international atmospheric policy.

At its meeting in Brisbane in September, the IUAPPA Board agreed to establish a task force to further examine the role and structure of the Union as we are almost a decade into a new century of environmental challenges. Given the environmental problems of the day and the great advances in communications and technology since IUAPPA's founding, are there ways that the Union should refine its focus, improve its operations and better serve its member organizations?

In preparation for the review the Secretariat undertook a questionnaire-based consultation of member organisations, seeking their assessment of their organisation's current strengths, the challenges they face, and their views on the ways that their own organisation and the International Union should develop. Among the recurrent themes were the importance of focusing on climate change issues as well as air pollution, and the opportunities for using new technologies to improve communication both internally within IUAPPA and member organisations, and to the external world.

The task force will be comprised of members appointed by each of the five IUAPPA vice-presidents. It will report back to the IUAPPA Board at the next Union annual meeting in October 2007.

- Air Pollution Control;
- Ambient Air Monitoring;
- Aermod;
- Indoor Air Quality; and
- Modelling and Odour: Community Surveys and Buffer Criteria.

During the Congress sessions, the oral presentations were limited to 10 minutes, which allowed for discussion at the end of each session, helping to arrive at meaningful outcomes. Presenters were asked to focus on results with full descriptions to be detailed in the written papers. Session chairs provided outcomes which were summarised and presented in the closing plenary session.

Key themes, outcomes and conclusions from the Congress include the following:

There is a need to understand better the interactions between air quality and –

- greenhouse gas emissions;
- radiative balance especially the contribution of black carbon to the 'Asian brown cloud', which should be reduced at the same rate as other pollutants;
- climate change impacts;
- human health and well-being;
- environmental quality; and
- weather conditions, including cloud formation.

Other needs relating to climate change are a national strategy for resilience in the face of climate change, and better understanding and management of carbon emissions:

- in methane from swamps; and
- from agriculture, forest, and domestic burning.

Air pollution health impact assessments require consistent methodologies between collaborators with effective peer review. Studies should take into account and quantify the influence of human factors as well as chemical and physical processes. This requires careful quantification. Further research is needed into:

- health effects of particle number, size and composition;

- thresholds for benzene, lead and ultrafine particle effects;

There is a need to quantify uncertainties and apply a risk analysis approach to regulation. Then ensembles of models can be used for the best result.

Speakers recommended the setting of international minimum vehicle emission standards. They also recommended that before introduction of alternative fuels, assessments consider:

- the performance of each fuel over the range of vehicles;
- the fuel source and its impacts eg displacing food source;
- chemical composition and combustion products; and
- total lifecycle assessment.

Community engagement was recognised to be essential and it should include linking health effect outcomes for both air quality and climate change. Monitoring and other research programs can be enhanced by community participation. Planning studies need to incorporate site specific criteria, the provision of transport infrastructure and the treatment of air quality as a resource.

Speakers also called for more tertiary courses specialising in the basic sciences underpinning air quality, especially chemistry, physics or biology.

A copy of the full summary of outcomes will be available shortly on the IUAPPA website. A copy of the official proceedings on CD containing papers from concurrent oral sessions and poster presentations can be obtained by contacting CASANZ at www.casanz.org.au.



Alan Gertler, Gerda Kuschel and Gavin Fisher

In a discussion of the scope for common policies, Frank Murray said that it was clear that strategies had to match circumstances and the different geographic scales involved. He noted the impacts of smoke from fires in Siberia on Japan and in India on Bangladesh and compared solutions to these to the local solutions that had been implemented, for example, to control emission from motor rickshaws in Dhaka. It would be essential to use a range of instruments, including regulatory and economic, to produce effective strategies and to match these to the levels of development of the different economies in regions.

Jeff Clark, IUAPPA Secretariat, updated the UNECE and European Union plans for dealing with PM and summarised UNECE experience in forming regional agreements. The key to success, he said, had been the determination to agree practical targets based on a good understanding of the scale and nature of the problems involved. Good quality monitoring and assessment had been a key to this.

In summing up, Richard Mills echoed Professor Murray's call for a range of solutions but noted that, in general, complex policies fail whereas simple ones tended to succeed. The first step, he said, would be to consider the information available and to begin to develop means of improving monitoring and harmonising data. Inter-regional dialogue and co-operation would be helpful in this respect. Such dialogue would also make it possible to assemble information on different policy approaches and their effects. There was certainly scope for IUAPPA through the Global Forum to build on its experience and to facilitate this process.

Submitted by John Murlis

FUTURE TRANSPORT TECHNOLOGY FOR A CARBON CONSTRAINED, ENERGY HUNGRY, WORLD

**A Special Session at the IUAPPA World Congress, Brisbane,
14 September 2007**

The publication of the IPCC Fourth Assessment report has thrown into sharp relief the challenge facing the world in reducing emission of greenhouse gases. Strenuous efforts will be needed in all sectors but the transport sector, with its vigorous growth, presents a particularly severe challenge. There is much that can be done to improve the environmental performance of fleets in service by implementing the best of current technologies. However, it is becoming clear that greater reductions in greenhouse gases will be required than can be achieved by this route alone. Future strategies will have to combine new technologies, such as fuel cells, for new vehicles with renewable transport fuels for vehicles already in service, bioethanol, for example.

The current status of these two elements of a future strategy was considered in a special session at IUAPPA's 2007 World Congress. Experts from the US, Australia and the UK presented overviews of developments and future strategies for new transport technologies and fuels and there was a lively and useful discussion.

The IUAPPA Director General, Richard Mills, introduced the session as the latest in a series of seminars in which policy experts met to review progress on air quality. However, the emerging agenda included the impact of transport on global warming and the aim of the current meeting was to explore what scope there was for improving the performance of transport in respect both of climate change impacts and local air quality.

Alan Lloyd, as the session Chairman, noting that where there had been a significant regulatory pressure on air pollutants there had been considerable progress. Tailpipe

emission in California had responded well to progressive tightening of limits. Emission of CO₂, the main greenhouse gas, where there is little or no current regulation had remained stubbornly constant. However, the recent targets set by Europe for CO₂ (120 g/km by 2012) and the recent Vermont law case which found that CO₂ was indeed an air pollutant and USEPA should set limits, showed that there was some new interest in using regulatory instruments for CO₂.

One of the key factors in creating policies for radical change will be an understanding of the conditions that will accelerate the assimilation of new technologies into the market. In his presentation, John Murlis, Environment Protection-UK, discussed the experience so far in bringing new vehicle technologies to market. He concluded that it was vigorous regulatory systems that had had the most success but that experience showed that it was essential to be clear about the targets involved. In the case of greenhouse gases, although some mutually acceptable interim targets might be negotiated between regulators and the automotive industries, the necessary stringency of the long term targets had to be clear. This would ensure that investors had the confidence to make long term commitments and that technologies that engendered only modest saving would be less likely to be seen as commercially viable.

Mark McKenzie, the Managing Director of Rare Consulting, presented the case for a holistic approach to the problem of transport emissions. He noted that, while a number of policy responses have been initiated worldwide to reduce the impact of vehicle-related emissions, these initiatives have delivered mixed outcomes. With respect to air quality, most developed countries have made good progress in

CONGRESS HOLDS TWO PLENARY SESSIONS ON THE GLOBAL ATMOSPHERIC POLLUTION FORUM AND REGIONAL, HEMISPHERIC AND GLOBAL CHALLENGES

The challenges facing the world community from atmospheric pollution at the regional, hemispheric and global scales, and the work of the Global Atmospheric Pollution Forum to promote action to address those challenges, were the focus of two plenary sessions of the World Clean Air and Environmental Protection Congress in Brisbane, Australia, in September 2007.

The first was a session in which Richard Mills, the IUAPPA Director-General, and Dr. Johan Kuylenstierna, Director of Stockholm Environment Institute (SEI) Centre at York University in the United Kingdom, gave an overview of the Forum and a report on its progress to date. The second plenary session highlighting the Global Forum was held at the conclusion of the World Congress on 13 September. It featured presentations from a panel of leading international experts associated with the Forum giving presentations on various aspects of the need for global progress on dealing with the challenges posed by regional, hemispheric and global air pollution. They included Lars Nordberg, former Executive Secretary of the UNECE Convention on Long-range Transboundary Air Pollution; Cornie Huizenga, the Executive Director of the Clean Air Initiative-Asia; and Dr. Johan Kuylenstierna, Director of the SEI Centre at York University. In the second session, Jeff Clark of IUAPPA outlined five key questions to frame the discussion and, after the presentations, led a wide-ranging discussion with the Congress delegates on possible future priorities in seeking to protect and improve the atmospheric environment at regional and global scales. The five questions were:

- Is there a need for a global agreement, protocol or some formal structure to address hemispheric and global

atmospheric problems – or are there other approaches that might be sufficient?

- What steps are needed – particularly from the atmospheric community — to build consensus on solving global atmospheric problems?
- Is there a need for periodic global air pollution assessments and “trends reports” (e.g. to help focus public support for stronger action on air pollution?)
- In what specific areas is greater international coordination/harmonization needed?
- What key areas should be targeted in pursuing dialogues between regional networks (e.g. climate co-benefits, PM and health, ozone)?

Each of the three panelists focused their presentations on one or more of these questions. Based on his years of experience with the UN Economic Commission for Europe’s Convention on Long-range Transboundary Air Pollution (LRTAP), Mr. Nordberg’s presentation addressed the steps that could be taken towards a multi-lateral agreement on transboundary air pollution. He concluded by noting that, from a global perspective, three possible ways forward include:

- A global convention on air pollution to match the Climate Change Convention;
- Opening up the LRTAP Convention to the world; or
- Separate sub-regional, regional or hemispheric agreements worldwide.

Mr. Huizenga then gave a presentation about the critical role of public support in

promoting effective regional action on air pollution. He used his extensive experience at the Clean Air Initiative-Asia to show how public involvement and support plays a critical role in ensuring policy makers take meaningful action. Dr. Kuylenstierna then provided a detailed overview of the areas where harmonization of technical systems, information and assessment processes are needed between regional networks and around the world. These included the areas of health, emissions inventories, monitoring, crops, materials and assessments.

During the session the members of the audience then commented on the issues raised in the presentations and presented a variety of suggestions for the kind of actions needed to better ensure progress in addressing air pollution at the regional, hemispheric and global levels. Included among these were:

- As we work on global air pollution issues, it is instructive to learn from other global protocols, including the Kyoto and Montreal protocols.
- It is critical to build support for air pollution programmes at all levels – including political, policy, media, industry, NGOs and the general public – not just the scientific level.

In developing materials to help harmonize methodologies and approaches used around the world, it is important that the Forum prioritize its work and focus on the main gaps, rather than trying to develop comprehensive programmes on all issues.

The panelists’ presentations and more details on the discussion can be found at the Global Atmospheric Pollution Forum’s website at www.gapforum.org.

NEWS FROM THE GLOBAL ATMOSPHERIC POLLUTION FORUM...



Over the past several months, the Global Atmospheric Pollution Forum has continued to make significant progress in pursuing programmes to reduce air pollution at the regional, hemispheric and global pollution. IUAPPA is a co-founder of the Global Forum and plays an important role in Forum activities. Included among the recent Forum activities and accomplishments are:

Global Forum takes several steps to actively encourage UNECE/LRTAP to take a leading role on hemispheric and global solutions

Over the past several months, the Global Forum has taken a number of concrete steps to encourage the United Nations Economic Commission for Europe's Convention on Long-range Transboundary Air Pollution (UNECE/LRTAP) to take a leading role in providing global leadership and technical support to other regional bodies on atmospheric pollution issues.

In December 2007, the Forum hosted a discussion in Geneva between representatives of the LRTAP Executive Body (EB) and members of other regional air pollution networks around the world. The Forum also sponsored a special dialogue among members of the LRTAP EB and representatives of the Malé Declaration for Control and Prevention of Air Pollution and its Likely Transboundary Effects for South Asia; the Air Pollution Information Network for Africa (APINA); the Acid Deposition Monitoring Network in East Asia (EANET) and the Sahara and Sahel Observatory (OSS). The purpose was to support the development of inter-governmental networks in Asia, Latin America and Africa, technical co-operation and harmonization (e.g. emissions inventory activity) and consensus building. The Forum strongly underscored its support for LRTAP's Outreach Strategy to other regions.

The meetings built on a major paper that the Global Forum developed and presented to the Conference for European Environment Ministers ("Environment for Europe") in Belgrade, Serbia, in October 2007. The Forum paper included a number of recommendations and concluded that UNECE/LRTAP should play a leading role in promoting global action on transboundary air pollution by:

1. Promoting the infrastructure for inter-regional co-operation;
2. Promoting scientific and technical co-operation among regional groups;
3. Proposing partnership programmes with other regions to tackle urgent common problems; and
4. Using its expertise and experience to open international debate on the policies and institutions needed to address hemispheric and global atmospheric pollution

The Forum sponsored a side event at Environment for Europe conference and presented the paper. The Forum side event included presentations by Martin Williams, chair of the Executive Body of the UNECE/LRTAP; Elisa Dumitrescu from the UN Environment Programme in Nairobi; Jeff Clark from the IUAPPA and Global Forum Secretariat; and Richard Mills, Director-general of IUAPPA.

The Forum paper and presentations are available at www.gapforum.org.

Forum announces appointment of technical liaison officers for Africa and Latin America and the Caribbean

In November 2007, the Global Forum was pleased to welcome the appointment by the UN Environment Programme (UNEP) of Forum technical liaison officers for Africa and Latin America and the Caribbean.

Ms. Jane Akumu has been selected to serve as the Forum's technical liaison officer for Africa and Mr. Damaso Luna will hold the same position for Latin America and the Caribbean. These appointments are an important step forward in the development of intergovernmental air pollution networks for those regions, and more generally in developing the work of the Global Forum on regional air pollution.

Ms. Akumu is based in Nairobi and serves as an Associate Programme Officer with the UNEP's Urban Environment Unit. She is responsible for Urban Environment issues in Africa, including air quality monitoring and clean fuels and vehicles. Mr. Luna serves as an advisor to the Director of the UNEP Regional Office for Latin America and the Caribbean (ROLAC) dealing with strategic planning, substantive preparation for



Global Forum side event at the "Environment for Europe" Ministerial conference in Belgrade



Jane Akumu

meetings, and follow-up of decisions adopted by the Forum of Ministers of the Environment for Latin America and the Caribbean. Mr. Luna is based in Panama.

More information is available at www.gapforum.org.

Global Forum Press Release in Bali calls for programmes that reduce Emissions of pollution into the air – not only for the sake of climate

At the December 2007 international climate negotiations in Bali, the Global Atmospheric Pollution Forum issued a press release warning the international community of the need to closely coordinate climate change programmes with those aimed at reducing air pollution.

Given the huge annual health and environmental costs associated with so-called “conventional” air pollution, the Forum release highlighted the concern that, “...unless developed in tandem, policies designed to reduce harmful emissions of the pollutants that cause smog, haze and soot may overlook opportunities to reduce the pollutants that cause global warming – and vice-versa. Developing policies to address both air pollution and greenhouse gases will provide important co-benefits—in the short-term by reducing the air pollution that is harming the environment and causing huge numbers of illnesses and premature deaths – and in the long-term for the abatement of climate change.”

Commenting in the press release, Richard Mills, Director-general of IUAPPA, one of the



Damaso Luna

co-founders of the Global Forum, said “We need to reduce emissions of pollution into the air – not only for the future sake of our climate, but also for the sake of people breathing unhealthy air today and tomorrow. Given the scarce resources available – especially in developing countries – it is critical that we develop cost-effective strategies that effectively address both climate change and air pollution. Indeed, so close is the link between the two, that for many purposes – and certainly for abatement strategies – it now makes little sense to treat the two issues in isolation from each other.” The press release continued, “to ensure better co-ordination of the international efforts to address air pollution and climate change, the Global Forum recommends that governments and intergovernmental organizations explore opportunities for joint action on air pollution and greenhouse gas mitigation, taking as a point of departure the emerging scientific understanding of the interrelationships.”

The full text of the press release is available at the Global Forum website, www.gapforum.org.



Coke and Chemical Plant in Cairo

photo: Alan Carter

ADAPTING TO CLIMATE CHANGE; INITIATIVES BY ABEPPOLAR AND IUAPPA

One of the most important areas of agreement at the Bali Conference in December was collective programmes to help countries adapt to the impacts of climate change. Reflecting this, ABEPPOLAR, IUAPPA's Brazilian member, is promoting initiatives to encourage states and cities to prepare more effectively for the increased risks of natural disasters that climate change brings with it.

The latest step was a major conference in Santos, the port for Sao Paulo, which examined the new policies and systems needed for responding to climate-induced disasters. The conference was organised with the Institute of Prospective Technologies and the Institute of Geological Sciences. Santos was chosen as the venue because of the significant risks that have recently emerged of potentially disastrous earth movements and landslips in the area.

World-wide, the annual total of disasters was now estimated at about 4-500

IUAPPA was the only international sponsor. In its introductory presentation it described the dramatic global increase in disasters over the past 25 years. The Union explained that, world-wide, the annual total of disasters was now estimated at about 4-500, as against about 125 in the early 1980s. Most of the increase is in 'small' and 'medium-sized' disasters as opposed to major catastrophes. However, as the Union explained these smaller disasters are geographically dispersed and often in areas where there is no previous experience to

draw upon. Moreover a series of small disasters can, as recently in West Africa, develop into a major catastrophe.

Disasters also disproportionately affect developing regions

Most of the increase in disasters, the presentation explained, is climate-related – the effect of rising temperatures and increased rainfall. Disasters also disproportionately affect developing regions – particularly the poor and women because they are relatively powerless to avoid disasters or escape their consequences. However more developed societies can also be seriously affected because of the risk that even relatively small disasters can pose to strategic assets.

ABEPPOLAR is now promoting a series of further conferences on the theme across Brazil. Meanwhile the Board of IUAPPA agreed at its meeting in Brisbane to explore opportunities for international meetings and co-operation in this field. This could take the form of a series of international seminars between major cities on policies for adapting to the impacts of climate change, and it is hoped to begin the programme late in 2008 or early the following year.

The Conference in Santos coincided with the announcement that Randolpho Lobato, ABEPPOLAR's President, was to receive one of the awards given by Sao Paulo to citizens for outstanding contributions to the life of the city.

WORLD ATLAS OF ATMOSPHERIC POLLUTION DUE IN FEBRUARY 2008

The World Atlas of Atmospheric Pollution is in its final stages of production and is expected to be available in February 2008. The Atlas, edited by Dr. Ranjeet Sokhi from the Centre for Atmospheric and Instrumentation Research at the University of Hertfordshire in the United Kingdom, has been eagerly anticipated. The Atlas is being published by Anthem Press. It has been developed in association with IUAPPA and the Global Atmospheric Pollution Forum and its contributors include a set of internationally renowned experts on air pollution.

The Atlas will include chapters on the history of air pollution; air pollution in urban areas; long-range transport of air pollution; global air pollution and climate change; ozone depletion; the environmental and health impacts of air pollution; and future air pollution trends.

