



IUAPPA Newsletter

The International Union of Air Pollution Prevention
and Environmental Protection Associations

January 2003

Schwartz Highlights Health Effects of Air Pollution

At IUAPPA's recent meeting in Sao Paulo, Professor Joel Schwartz of Harvard, one of the world's leading authorities on the health impact of air pollution, issued a powerful challenge to those who might be tempted to take a complacent view of the health effects of air pollution. He was the Union's special guest at the meeting to receive, in person, the 2001 World Congress Award from Immediate Past President, Dr. Won Hoon Park.

Professor Schwartz acknowledged that in some developed countries air pollution was now sometimes seen as a problem approaching solution, while in developing countries there was scepticism as to how

far abatement measures could have substantial effects on air pollution and its health effects without jeopardising economic development.

In his address Professor Schwartz not only demonstrated the significant continuing impact within Europe and North America, and the enormous toll elsewhere in the world, but also argued that, far from being expensive, measures geared to the reduction of air pollution were cost effective. Rather than avoid them, air pollution policy makers should embrace economic assessment techniques such as cost benefit analysis. Far from being out of place in the air pollution and health field,



Joel Schwartz receives the World Congress Award from Dr. Won Hoon Park

they could persuasively underline the importance and value of abatement measures.

Dubrovnik Regional Conference

Members are reminded that the deadline for submitting papers for the Regional Conference on Air Quality Assessment at Local, Regional and Global Scale to be held in Dubrovnik from 6-10 October, is fast approaching. Full papers are due for submission by 1 April. We are aiming for minimum participation of 300 delegates, but that will require renewed effort by member organisations. Members are urged to continue to make every effort to publicise the event and urge individual members who may be interested in attending to register quickly.

The conference, which is hosted by the Croatian Air Pollution Prevention Association, will have important sessions on the European CAFÉ programme, on long-range transport of air pollution and on the international transferability of air quality management policies and skills. For further information visit the website at <http://www.imi.hr/cappa2003.html>. Although a European Regional Conference, the programme is designed to appeal to IUAPPA members throughout the world.

The conference promises to be a very special occasion, with a wonderful social and tourism programme. 2003 is the year to visit Dubrovnik – while this beautiful and hospitable city is still relatively uncrowded – and before the crowds return.

NEWS IN BRIEF

- AWMA (USA) resumes full membership
- Special edition of *Atmospheric Environment* carries Seoul World Congress papers
- Mexico City to host next Urban Air Quality Management Seminar

REVIEWS AND REPORTS

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Proceedings of the World Congress: Special Edition of 'Atmospheric Environment'

Members may already have seen the first results of IUAPPA's new collaboration with the leading International Journal *Atmospheric Environment*. Nineteen of the most important technical papers from the Seoul World Congress were included in a special edition of the Journal in November 2002, including papers from Japan, Korea, USA, UK, France and Italy.

It is hoped to develop and expand this relationship with *Atmospheric Environment*

for proceedings from future Congresses and Conferences. Options are also being explored to allow articles more related to practical technology development or to policy initiatives, or articles of a more general kind, to be carried in other comparable international journals. None of these arrangements will prejudice continued publication of the full proceedings of the Congress.

Global Atlas of Atmospheric Pollution

The publication of the Atlas, on which contracts have now been agreed with publishers, will be a landmark event, providing for the first time a visual and analytic presentation of atmospheric pollution issues at the global level. The editor, Dr Ranjeet Sokhi, reports that a full list of distinguished international contributors has now been assembled. Chapter editors are drawn from around the world, including the United States, China and The Netherlands. They include

- Professor Peter Brimblecombe (University of East Anglia, UK)
- Professor Ding Yihui (IPPC and National Climate Centre, China Meteorological Administration)
- Dr. Richard Stolarski (NASA/GSFC)
- Professor Markus Amann (IIASA, Austria)
- Professor S.T. Rao (USEPA/NOAA)

It is hoped to have the publication of the Atlas coincide with the next World Congress, but drawing together the work of some 20-30 contributors will be a major challenge for coordinating authors and the editor.

Hopes for the Future



Clr Chaman Lal receives the IUAPPA Konrad Lorenz Award from Environment Minister Alun Michael

Several of the awards announced in the July 2002 edition of the Newsletter have now been presented. Professor Walter Kofler (Austria), Dr Vicente Mazzarella (Brazil) and the Taiwan Environmental Protection Administration received their awards at the Opening Ceremony for the Sao Paulo Conference.

John Buccini (Canada) was unable to come to Brazil because of a special UNEP meeting in China and his award will be presented at a later date.

The award to the City of Birmingham (UK) was presented by the UK Minister for Urban and Rural Quality of Life at a meeting at the House of Commons in London in December.

Co-ordination of National Journals

A number of IUAPPA members, including APPA (France) and AWMA (United States) – are keen to expand their links with other national journals, and generally to extend the international coverage of their pages. The Secretariat is considering ways in which IUAPPA could facilitate this, perhaps by acting as a clearing-house for exchange of synopses or facilitator of bilateral arrangements. Member organisations interested in participating in such development are asked to contact the Director General.

International Advisory Board

At its Board Meeting last year the Union decided to establish an International Advisory Board to help guide the next stages of its development. Membership would be by invitation from among leading International figures associated with environmental science and policy – whether or not already associated with IUAPPA. It is intended that the Union's Board decide the composition and membership of the new International Advisory Board at its meeting in October in Dubrovnik. National organisations are asked to send nominations of suitable persons to the Director General by the end of June.

Membership

United States of America

The International Board welcomes the return to full membership of the Air and Waste Management Association (AWMA). AWMA has played a long and distinguished role in IUAPPA, and its absence in recent years has been seriously felt. The Board now looks forward to welcoming old and new AWMA colleagues to a new and productive partnership.

New Observer Members

Ecological Society of Nepal

IDEFE, Peru (email: idefe@terra.com.pe); Members will recall the valuable contribution of IDEFE and its Director, Alexandra Cugler, to both its Lima and Sao Paulo meetings.

TRANSBOUNDARY AIR POLLUTION – UPDATE

Significant developments in the last few months have further emphasised the importance of IUAPPA's proposals for developing a stronger international framework for promoting scientific and policy developments on Long-Range Transport of Air Pollution. Two developments stand out: publication by UNEP of the "Asian Brown Cloud" report and the increased attention now being given to global-regional synergies.

'Asian Brown Cloud'

Many members will already have seen the major report* from UNEP last autumn, which gave further confirmation of a massive cloud of pollution more than 3 kilometres deep covering part of Asia. The brown haze is caused by dramatic increases in the burning of fossil fuels in vehicles, industries and power stations, emissions from millions of inefficient cookers, as well as forest fires and the burning of agricultural waste. It now seems clear that the haze is disrupting the climate, damaging agriculture, affecting monsoon rainfall and contributing to death rates from respiratory illness. The report graphically illustrates the increasing importance of transboundary air pollution in Asia and potentially in other developing areas.

* *The Asian Brown Cloud: Climate and Other Environmental Impacts* – Center for Clouds, Chemistry and Climate, UNEP 2002. US\$20.00. Available from www.earthprint.com

In its response to the report, IUAPPA urged the UNEP Governing Council to act urgently and positively on the findings of the report, by increasing efforts to strengthen the machinery for international cooperation, along the lines already posed by IUAPPA. The Director General emphasised the importance of seeing the 'ABC' problem in its wider regional and global context. Making real progress on this most substantial transboundary air pollution problem depended not only on individual countries setting in place the necessary abatement policies, but also on developing the more effective policy framework at regional and global level for which IUAPPA has been pressing.

Global-Regional Synergies

Meanwhile there are more encouraging prospects for progress in linking the regional and global levels of atmospheric science and policy. A recent workshop held under the auspices of the UNECE Convention on Long Range Transboundary Air Pollution (LRTAP) highlighted the wide range of research now beginning to focus on this issue.

The workshop was co-ordinated by Professor Markus Amann of IIASA, Austria, who is a member of the Advisory Panel for IUAPPA's transboundary project and who will be leading a special session at the next World Congress.

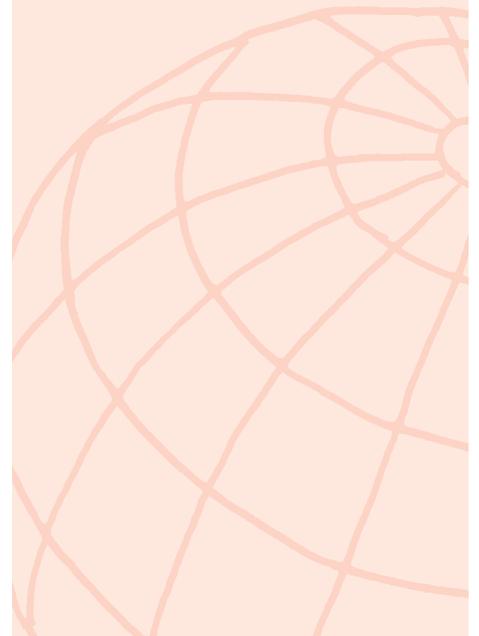
IUAPPA's report last year highlighted the need for closer linkage between research on climate change and regional air pollution, and we shall be encouraging LRTAP to give the issue increasingly high priority.

Papers from the workshop are expected to be available shortly on the IIASA website at www.iiasa.ac.at

Next Steps for IUAPPA

The UNEP Governing Council is meeting in Nairobi in February. Transboundary air pollution will feature on the agenda – with the primary focus inevitably on how the world organisation should respond to the findings of the "Asian Brown Cloud" report.

At the time of going to press the outcome of the discussion is not clear. The resolution before the Council is understood to link further research on ABC with wider exploration of the regional and global problems which it reflects. It is hoped that this will provide a stronger focus for IUAPPA to press for action on the conclusions that emerged from its recent work. A report on the further development of IUAPPA's own programme will be circulated once the position within UNEP is itself clear.



' BUILDING A SUSTAINABLE WORLD '

IUAPPA's meeting last October in Sao Paulo will be remembered by those who participated for many reasons – not least the excellent hospitality and skill of our Brazilian hosts.

However it also yielded important outcomes for IUAPPA in three respects:

- Participants and guests from a number of other Latin American countries enabled IUAPPA to lay the foundation for its Latin American network and regional office. We were particularly pleased to welcome Sr. Vizcarra Andreu (SPAGAL, Peru), Alexandra Cugler (IDEFE, Peru), Dr. Laura Venegas (University of Buenos Aires, Argentina), Dr. Antonio Mediavilla Sahagun (Mexico City), Dr. E. Sanhueza (Venezuela Institute of Scientific Research), and Professor Hector Jorquera (Catholic University of Chile).

Under the leadership of the Chairman, Randolpho Lobato, a Secretary for the network will now be appointed to help quickly develop its work and encourage IUAPPA activities within the region.

- Following consultations with Brazilian and other Latin American experts, the Union reached preliminary conclusions on the broad outline of the scientific and policy processes needed for tackling long-range transboundary air pollution within Latin America. Latin America is at present the main region without any such network, and it is important that IUAPPA's proposals should include recommendations relevant to South America which directly reflect the views of scientists and policy makers in the region. Although the planned seminar on long-range transport of air pollution had to be deferred, because of the pressure of

other meetings in Sao Paulo, it is intended to proceed with this at a later date.

- Thirdly, and most notably, Sao Paulo was the occasion for the successful introduction of the programme of special workshops on urban air quality management between cities at different stages of urbanisation and development. The conclusions of the meeting are reported more fully elsewhere in this newsletter.

The conference included over 100 papers on a wide range of aspects of sustainable development. The key themes of the conference were drawn together in a wide-ranging address by the keynote speaker, Derek Osborn, Chairman of the United Nations Environment and Development Forum. Mr Osborn played an important role in the Johannesburg Summit, for the non-governmental sector, and was previously co-chairman of the special session of the UN General Assembly to review progress 5 years after Rio. The full text of his address can be obtained from IUAPPA Headquarters, but a summary of the final section is included on page 5.



A dinner to thank Randolpho Lobato and his colleagues for all their help with the arrangements for the seminar and other meetings

From Rio to Johannesburg and Beyond – The Long March Towards Sustainability

Concluding section of the address to the Sao Paulo conference by Derek Osborn, Chairman, UN Environment and Development Forum; Co-Chair, UN Special General Assembly to review progress five years after Rio.

My last visit to Brazil was to the Earth Summit in Rio de Janeiro ten years ago. That famous event changed my life forever. It affected the many thousands of others who were there, and the many millions more who were influenced and inspired by its work.

Rio directed the world's attention to the big picture – the world as a whole. We had to confront together the whole of the planet and its ecosystems – their resilience and their fragility – and the extent and pace of the changes which humanity is imposing on those fundamental systems. We had to put that understanding alongside our understanding of human society and its problems and aspirations and to try to establish future paths for humanity that may better protect and sustain the ecosystems that support us all.

Rio was a triumphant success. Rio was a sad failure.



Derek Osborn

It was a success because it adopted a set of basic principles for guiding the future development of human society on our planet in a more sustainable way. It agreed a comprehensive agenda for action at all levels throughout the world to advance sustainability. It agreed two great conventions on Climate Change and Biodiversity to tackle these two crucial areas of global threat to sustainability.

All of these elements were major successes. But Rio was a sad failure in one crucial respect. It did not create effective machinery for ensuring that its analysis, its promises and commitments became translated into effective action. It had no machinery for implementation, monitoring and enforcement. As the decade since Rio has gone by these weaknesses have appeared more and more strongly. Implementation has been very partial.

Now in 2002 another Summit in Johannesburg ten years after Rio has once again attempted to breathe new life and momentum into the sustainable development agenda. Once again the result is both a failure and a success.

It is a failure because many countries are still dragging their feet about effective implementation of Agenda 21 and the sustainability agenda.

But Johannesburg did have its successes – and has the potential to have a lasting influence for good. It set important goals and targets and consolidated commitments to all the different aspects of sustainable development. Johannesburg was a success too in recognising, celebrating and encouraging the major contributions to sustainable development being made by many different groups in society around the world.

If on this occasion all the Johannesburg governmental agreements together with all the parallel commitments made by other actors can actually be delivered this will be a really substantial practical achievement. Once again we shall only really be able to tell how far the

Johannesburg conclusions are a success or another failure when we see whether they are this time followed into effective action.

Action is needed at all levels and in all sectors. There needs to be effective follow-up and monitoring in the United Nations itself and the CSD. The continental regions of the world are natural groupings for advancing many of the specific environmental and sustainable development goals. National governments must of course be at the centre of effective action developing their own comprehensive sustainable development strategies and engaging all the different national actors in their vigorous implementation.

Brazil is a crucial exemplar in the transition to sustainable development. Brazil has always been at the forefront of global and regional debates about sustainable development. Of course it played a crucial and highly regarded part at the Rio Summit itself ten years ago. In a less high profile way it played a key role on the progressive side of the debate in South Africa. I salute that achievement, and I very much hope that Brazil will form one of that important group of like-minded countries that are determined to go further than the Johannesburg agreements, and to undertake additional commitments in some of the crucial areas such as energy.

The spirit of Rio is alive and well in the world today, and has been powerfully reinforced this year by the Summit in Johannesburg. What is crucial now is that all those who wish to see progress on sustainability around the world should join hands to drive that progress forward. I know that Brazil has much to be proud of already in the progress that has been made here towards sustainability. I have no doubt that those of us in Europe who share the same concerns will want to continue to work closely with you here to make further progress, and to join hands with those in many other parts of the world who are determined to make the vision of sustainable development a living reality.

International Seminar – October 2002

The Union's first international seminar on Air Quality Management in large and megacities was held in Sao Paulo last October, in association with the Brazilian conference on Building a Sustainable World. The aim was to promote exchange of knowledge and experience between air quality management practitioners in Sao Paulo and European cities; and to enhance understanding of the process of air quality management through exploring its operation in different cultural and societal contexts. Organised on behalf of IUAPPA by CSIA-ATI and the University of Sao Paulo, it was sponsored by the British Council, and drew together many of the leading authorities in Sao Paulo with visiting European experts and representatives of other major conurbations within Latin America.

Chaired by Guiseppe Fumarola from Italy and Jaoa De Assuncao from Sao Paulo University, the three day meeting reviewed progress and prospects in Sao Paulo, and comparable European experience in all the main areas of urban air quality management. A highlight was a special keynote speech by Professor Joel Schwartz from Harvard.

A CD containing the papers, slides, and conclusions from the meeting is available on request from the IUAPPA International Secretariat.

A follow up meeting is planned in Sao Paulo to look at aspects of transport and air quality, and integrated assessment.

An outline of the principle general conclusions follows on page 7.



Sao Paulo, October 2002

Mexico City to Host Next Urban Seminar

At the invitation of Professor Mario Molina, the Nobel laureate, the next IUAPPA International Seminar on Urban Air Quality Management will be held in Mexico City, at a date to be agreed probably around January 2004.

The meeting is expected to be linked to the annual meeting of Professor Molina's major programme on air quality management in Mexico City, one of the largest and most significant on-going programmes of its kind in the world.

Specialists in the field of urban air quality management who may be interested in participating in the meeting are invited to notify the Director General (iuappa@nsca.org.uk).

Urban Air Quality Management in Europe and Brazil: General Conclusions from the Seminar

General

- Large cities are a more dominant feature of the environment in Brazil than in Europe. Urban scale analysis and policy, already significant in Europe, are therefore likely to prove even more relevant in a Latin American context.
- The contrasting topographical and meteorological conditions of different cities will continue to emphasise the need for individual urban scale assessments.
- Latin American and European cities still differ markedly in the societal pressures facing them. These can have a significant impact on the practicality of air quality management solutions: notably the rate of population growth and movement and the strength of the planning system. In general, air quality can be far more easily managed in areas of population and development stability. A major challenge is therefore to find ways in which air quality management processes, largely evolved for relatively stable urban areas, can be made relevant and effective, in areas of rapid growth and change such as Sao Paulo.
- There is likely to be increasing convergence between European and Latin American experience and thinking in a number of key areas related to managing urban air pollution, both in available technologies and their applications and in regulatory issues such as problems of enforcement, regulatory burden, and the difficulties of regulating small enterprises.

Source Inventories, Monitoring and Public Information

Knowledge of sources, emissions, ambient pollutant levels and effects is an essential first step in understanding the nature and scale of the problems, assessing control options, building political and public support for the measures required. Key conclusions were:

- In Sao Paulo it will be important to match progress in developing inventory and monitoring systems with increasing

effort in analysis so that lessons can be learned.

- European evidence suggests that publication of monitoring results can be a powerful means of gaining public support for measures.
- In Latin American cities generally it is important at present that efforts to secure long term continuity in monitoring programmes should not be undermined by changes at a political level.
- Effective pollution protection needs credible benchmarks particularly for public health. This suggests an important role for WHO in air quality standards in both Europe and Latin America.
- More information sharing on methods is desirable. Greater convergence in this area would assist comparisons between cities and the development of more effective common approaches.

Source Apportionment

- The most striking conclusion was that in Sao Paulo transport sources appear relatively even more important than in European cities. However, this may be an artefact of less complete monitoring of fixed point sources.
- In Latin American cities integrated assessment will be particularly important because of the need to address transport, industry and domestic sources together, rather than – as in Europe – in turn.
- In expanding megacities in temperate climates the issue of indoor air pollution is critical for health, but not Sao Paulo. However, by comparison with Europe, emissions from cooking may be significant.

Industry

- In many megacities policies to move industry away from urban centres are often overwhelmed by urban expansion. Urban growth and pollution control policies must work together.
- Substantial progress with control of major industrial emission sources, in

both Brazil and Europe, means that the key problem is now the increasing number of smaller sources.

- In both Brazil and Europe, it is important to maintain confidence in 'command and control' policies. However they may not be sufficient by themselves. Already in Europe, and probably before long in Brazil, 'command and control' may offer diminishing returns because of the scale of regulatory burden. Both regions need to look to the scope for 'smarter' approaches to traditional regulation and to alternatives to it.

Transport

- The over-riding question is whether it is possible to limit the headlong rush to private transport that wreaked havoc in the developed world. Prospects are not good in Sao Paulo.
- Cleaner vehicle technologies are making a major contribution. But time-scale of fleet turnover means they come into effect slowly.
- Clean fuels have the advantage of ease of implementation, and are essential for some new technologies (catalysts and particle traps). Brazil and Europe currently have different road fuels, but there is a converging common interest in bio-fuels.
- Inspection and maintenance regimes are always critical.
- European participants take the view that cleaner vehicle technologies are not enough by themselves. More imaginative and radical transport solutions are required. But it is recognised that this is very difficult because of public attachment to car ownership. Are there better prospects in Brazilian cities where the switch from public to private transport is not so far advanced?
- Meanwhile, there remains much scope for exchanging views and sharing experience on niche solutions, in such fields as zoning and traffic restraints, and in more radical policies for heavy goods vehicles, taxis, and public sector vehicles.

International Meeting Dates

6-10 October 2003, Dubrovnik
Air Quality Management: Local Regional and Global Scales (and IUAPPA International Board Meeting)

January 2004, Mexico City (to be confirmed)
Urban Air Quality Management Seminar

24-29 October 2004, Salzburg, Austria
13th IUAPPA World Congress

2005, Japan (to be confirmed)
Regional Conference

2007, Brisbane, Australia
14th IUAPPA World Congress

WORLD CONGRESS PREPARATIONS

Planning for Salzburg

Following the decision of the International Board that it was no longer realistically practicable to hold the World Congress in Jerusalem next year, preparations are now under way to hold the Congress at a new venue – Salzburg in Austria.

Salzburg is a beautiful and historic city – and an established and popular Congress venue, with excellent facilities, good air transport links, and offers excellent value for money for organisers and participants alike.

Preparations are in the hands of organising committees from Israel and Austria, led by the President and Walter Kofler. This partnership gives a new and more international character to organisation of IUAPPA Congresses. This reflects contemporary circumstances: the development of international congress organising companies and better communication, make it easier for Congresses to be largely organised from a distance. This in turn opens up the prospect that in future some of our smaller member organisations can play a key role in organising or hosting Congresses.

The original themes for the Congress remain unchanged: climate change, megacities and long-range transboundary air pollution. However, to these have been added the environmental problems of complex terrains and the EU Clean Air for Europe Programme. Initial planning for these sessions is led by Joop Van Ham (Netherlands) – climate change; Alan Gertler (United States) – megacities; Jim Meagher (USA) – transboundary air pollution; Walter Kofler (Austria) – environmental problems of complex terrains; and the Director General – CAFÉ. Leaders of the Scientific Committee for the Congress are Professor Manfred Neuberger (Austria) and Professor Yaacov Mammane (Israel).

Next Steps for Member Organisations

National member organisations are now asked to begin their own preparations for participation in the Congress. There are important ways in which they can immediately help the work of the Organising Committees, in particular by:

- Publicising the Congress widely among their members and other organisations;
- Establishing a National Committee for encouraging and assessing locally submitted papers;
- Recruiting leading members of their national scientific and policy communities to agree to support and participate in the Congress;
- Identifying locally domiciled national or international companies who might be persuaded to sponsor or participate in the exhibition.

The immediate priorities are to identify leading potential participants and industrial sponsors and exhibitors. National associations are asked to pass their suggestions as soon as possible to the President (mluria@yahoo.com), copied to the IUAPPA Secretariat Office (iuappa@nsca.org.uk).

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