



IUAPPA Newsletter

The International Union of Air Pollution Prevention
and Environmental Protection Associations

February 2004

GLOBAL LEADERS TO ATTEND WORLD CONGRESS

It is now clear that the IUAPPA World Congress in London in August will be attended by a wide and distinguished range of international environmental leaders, including Klaus Topfer, Executive Director of UNEP, Rajendra Pachauri, Chairman of the Intergovernmental Panel on Climate Change and the European Environment Commissioner, as well as Environment Ministers from the UK, Israel and elsewhere. The scientific speakers are of equal distinction, and include three Nobel prize-winners and the leading figures in most of the areas the Congress is covering.



Rajendra Pachauri, Chairman, IPCC

This will also be the first IUAPPA Congress to be a joint endeavour by a number of IUAPPA member organizations. Although organized and hosted by IUAPPA's UK and Israeli members, major roles are being played by other European members, notably those from France, The Netherlands and Germany, as well as the Air and Waste Management Association of the USA and Canada.

The list (to January 2004) of specially sponsored sessions, workshops and meetings, published in full on pages 2 and 3, shows the breadth and depth of the programme. In line

with this global outreach the Congress now has three major international companies as lead corporate sponsors – BP, Johnson Matthey and Volvo Cars.

Under the title 'Environment at the Turning Point', the Congress will be the first to focus primarily on the interaction of climate change and pollution, perhaps now the most crucial issue in atmospheric science and policy. A particular challenge for the next decade will be how to develop synergistic policies to link the two areas. However it is also clear that the meeting will bring major new research findings, policy announcements or international perspectives in other areas. Notable among these are likely to be:

- health impacts of air pollution – in terms of cardio-vascular disease;
- global perspectives on indoor air quality;
- transport and air pollution in mega-cities.
- the potential role of congestion charging in tackling air and environmental problems of cities.

Commenting on progress so far, IUAPPA President, Menachem Luria, said:

"We now have an outstanding programme for our World Congress, which this year we are holding in one of the world's most diverse and exciting cities.

"The challenge over the next six months is to ensure that we achieve our target of 800 participants. That will require major efforts from us all, but I know that all our member organizations will play their part."



National Maritime Museum, London

DUBROVNIK – OUTSTANDING SUCCESS FOR CAPP

Although the number of international participants was lower than had been hoped, IUAPPA's regional conference in Dubrovnik last October was an outstanding success for the Croatian Air Pollution Prevention Association.

In terms of the quality of the venue, the efficiency of the organization and the quality of the social programme, the meeting has had few equals in recent years. Indeed one regular attendee commented: This was IUAPPA's best meeting ever – because it was the best organized.

As the full report on pages 4-5 indicates, there were also a number of significant policy conclusions and scientific findings emerging from the meeting.

The International Board of the Union recorded a special vote of thanks to Vladimira Vadic and her colleagues for their outstanding and successful efforts on the Union's behalf.

REMINDER

CONGRESS CALL FOR PAPERS

Don't forget – the deadline for submission of abstracts to Kenes is
Tuesday 16 March 2004.
Abstracts must be submitted electronically –
for full details visit
www.kenes.com/cleanair

CONTENTS

Congress update – sponsored sessions, workshops and meetings
 Report from IUAPPA Regional Conference, Dubrovnik
 Urban Air Quality Management – Report from Mexico City
 News and Notes
 Nominations invited for Congress and Barthel Awards
 Future Meetings Programme



AIR QUALITY ASSESSMENT AT LOCAL, REGIONAL AND GLOBAL LEVEL

Dubrovnik, 6-10 October 2003

The principal results of the conference are contained in the large number of papers published in the proceedings of the meeting. Almost all of the papers presented, with the exception of a number of keynote addresses, are available there, and reflect the depth and variety of work currently being carried out, in Europe and elsewhere, on all aspects of air quality management and policy relevant to the theme of the conference.

Naturally the largest number of submitted papers came from Croatia, the host country. These demonstrate the extent and depth of air quality studies within Croatia and the contribution it is now making to international research and policy.

The largest category of papers cover relatively local studies of emissions and impacts, and many of these contribute significantly to current information, research and understanding. However, a notable feature was the contribution beginning to emerge from major European comparative

studies, particularly across cities, on major aspects of pollution and its effects in respect, for instance, of health impacts and health impact assessments. Such comparative studies are now providing the basis for more general and systematic views of air quality issues than the diverse range of local management and assessment studies, important as they remain.

While these individual studies and comparative programmes represent the principal outcome of the conference, three major overarching conclusions emerged from discussion of the papers presented.

Framework for Air Quality Policy

It was evident from presentations at the conference that science is progressing more rapidly than policy instruments, with the result that a gulf is emerging. Over the coming years the framework of air quality policy and management within Europe, and in particular some of its principal elements, such as limit values, will need to be

fundamentally reassessed to take account of some of the emerging results of scientific assessment. One factor is the clear evidence that health impact thresholds for key pollutants cannot now be confidently identified. This has important implications for the relevance and role of limit values. At the same time it is clear that the concept of personal exposure is assuming increasing importance in European policy and that current policy systems do not adequately take account of it. Finally, it is evident that the enlargement of the European Union, to the extent that it results in bringing within a single policy and administrative framework a more diverse range of environmental conditions, will pose further challenges for the nature and structure of policy systems. While current policy systems have served well and there remains general confidence in most aspects of them, it is clear that a rapid process of policy innovation will be needed to accommodate the speed and depth of changes in scientific perception.

Scientific and Public Perception of Air Quality

A matter for equal concern is the evidence that emerged in some papers that there remains a gulf between the scientific perception and the public perception of air pollution. In any scientific field such divergences are, to some extent, unavoidable. However they assume greater significance when it is recalled that if further reductions in air pollution are to be achieved they must rely very substantially on voluntary changes in personal behaviour by individuals. That in turn will be all the more difficult to achieve unless there is a



The IUAPPA International Board met in Dubrovnik. Top of the agenda was an update on arrangements for the World Congress.

AIR QUALITY ASSESSMENT AT LOCAL, REGIONAL AND GLOBAL LEVEL

common perception and understanding between scientists and policy makers on the one hand and the public at large. This therefore represents a second important challenge for policy in the coming years.

Climate Change and Air Quality

Perhaps the most important single contribution was however in the field on which the title of the conference implicitly focused; the relationship between the local, regional and global scales. While this is relevant and important specifically in respect of traditional toxic pollutants, it is also important in highlighting the critical interface between the issues of air pollution and climate change. This interface has

been inadequately covered in recent years, but now needs to come to the forefront of scientific and policy review.

Here the meeting made an important contribution, not only in the discussions undertaken at the meeting, but in particular by the keynote address on the theme, by Dr. Markus Amman, which crystallised, more clearly than previously, the relationship between the two phenomena, and their conflicting and synergistic impacts. In clarifying and highlighting this key area, the conference represented a major contribution to the scientific and policy foundation for the next World Congress in London in August 2004, which will be taking this as its principal theme.



Dr Vladimira Vadic, President of CAPP (3rd from left) celebrates the success of the Dubrovnik Conference with colleagues

EFCA

Following important discussions at the Dubrovnik Conference, EFCA, which brings together IUAPPA's European members, has written to the European Commission about the future of air quality regulation in the Union.

Discussions at the Conference raised serious questions as to how far the current regulatory system, based on a long-established system of limit values was now a sufficient basis for setting air quality objectives, plans and priorities. It was suggested that this might no longer be the most cost-effective approach, because of current difficulties of some countries in meeting objectives and because of the increasing diversity of conditions within the expanded Union. It was felt that, while limit values would continue to be needed as a back-stop, other instruments might be needed to ensure relevant and cost-effective progress in different areas.

EFCA offered to help promote debate on the issue, and the subject will be a major theme for one of the major policy conferences which will form part of the World Congress.



EFCA Board meets in Dubrovnik

URBAN AIR QUALITY MANAGEMENT

The Union was fortunate to be able to hold its second Urban Air Quality Management Seminar in conjunction with the Annual Meeting of Mario and Luisa Molina's major MIT Programme on Integrated Assessment of Air Quality at Urban, Regional and Global Scales in Mexico City. Although the Seminar itself was limited to two days, combined with the Annual Meeting it made an extremely full and rich week of meetings.

The focus this time was transport – reducing the impact of vehicles. As well as notable contributions by six professors from MIT, from Sir Christopher Foster and David Hutchinson on the Introduction of Congestion Charging in the UK, from Menno Keuken (The Netherlands) and Ivo Allegrini (Italy), there were also important presentations on major transport/environment initiatives in Santiago, Sao Paulo and Bogota. A fuller report of the meeting and its conclusions follows.

The meeting was generously sponsored by NSCA (UK) and CSIA-ATI (Italy) who are preparing and distributing the CD of the proceedings to member organizations. The conclusions from the meeting will provide the basis for the sessions on mega-cities to be held at the World Congress.

Joint MIT* -IUAPPA Workshop on Transportation and Environmental Impact

Mexico City, Mexico January 22-23, 2004

Summary Report of Seminar by Alan Gertler¹ and Menachem Luria²

The workshop brought together 46 transportation and environmental experts from developing and developed countries in order to address environmental issues related to transportation systems in mega cities. Particular emphasis was placed on solving the severe traffic congestion and air pollution problems associated with mega cities in developing countries. Participants from 12 countries discussed various solutions to alleviate the transportation impacts related to congestion and its impact on air quality.

Participants presented a broad range of papers in four sessions devoted to:

- (1) overarching mega city issues;
- (2) cleaning up vehicles and educating drivers;
- (3) economic instruments to manage demand; and
- (4) planning and implementation constraints.

A final session was devoted to outline recommendations on socially sensitive and sustainable transportation development. Case studies were presented, using cities in three categories: the developed, developing, and third world countries. The first category included cities that have

already implemented advanced transportation planning and mobile source emissions control strategies. Among the cases discussed were London, Rome, Milan, and Rotterdam. The second category focused on Latin American and Asian cities where innovative approaches have already been applied and tested. Cities included Mexico City, Bogota, Santiago, Sao Paulo, Beijing, and Shanghai. Cities in the third category included Cairo and Manila, two examples of mega cities with severe congestion and pollution problems, where planning and abatement programs are in the early stage of development.

The London solution involved the creation of a congestion zone in the city center to reduce the number of operating vehicles during work hours. The success of this strategy has led the city planners to explore the possibility of expanding the congestion zone to achieve an improvement in air quality in addition to a reduction in roadway congestion. The Milan and Rome solution included the imposition of high parking fees to discourage the usage of private vehicles in congested areas. In Milan, an additional tool is being implemented to reduce pollution levels by limiting vehicle access when high levels of

ambient pollution are observed. This same approach is also being proposed for Beijing during the upcoming Olympic Games. In an attempt to reduce residential exposure to mobile source emissions and noise, Rotterdam imposed a constant speed zone on a highway running through a neighbourhood. Minimizing speed variability and choosing a speed in the range where emissions are minimized achieved a reduction in pollutant levels and noise.

A number of South America cases showed how developing countries can achieve remarkable success in reducing air pollution and congestion. Mexico City, long known as one of the most polluted of the world's mega cities, has initiated a comprehensive program to improve air quality. Reflecting the Integrated Program on Urban, Regional, and Global Air Pollution (Mexico City Air Quality Program) major improvements have occurred and air quality, in some areas, is now similar to that observed in the US. Cleaner fuels, improved fleet technology and transportation infrastructure, encouragement of higher-occupancy modes, vehicle inspection and maintenance, no-drive days, and development of in-country resources to

URBAN AIR QUALITY MANAGEMENT

address the issues have contributed to the observed changes. Santiago has initiated a bus rapid transit system (BRT), integrated bus-metro system, improved bus technology, reversible street directions, and land-use planning structure to greatly reduce trip duration and variability. In Sao Paulo they have focused on the use of alternative fuels such as ethanol and achieving increased usage among all demographic groups. In addition, they have developed socially sensitive policies that attempt to achieve a balance between equity and efficiency. Bogota has developed a BRT system that allocated prime road space to new technology buses. This has resulted in increased pedestrian space and bike use, reduced travel duration, and improved air quality, while decreasing private vehicle use.

In spite of these gains, there continue to be many areas where comprehensive solutions appear to be daunting. Air quality in Cairo continues to be among the worst in the world. Simple solutions such as instituting a garbage collection system to reduce open burning and moving the location and/or improving the technology of polluting industry would improve the situation but air quality and congestion would remain at unacceptable levels. By learning from the experiences in other regions, officials may be able to correct the situation by initiating a plan to improve the transportation infrastructure, minimize the use of private vehicles, improve fleet

technology, and improve fuel quality. Manila is another example of a city where problems continue to exist. Much of this is due to the heavy dependence on two-stroke motorbikes for transportation but another issue appears to be the lack of infrastructure, institutional arrangements, market based instruments, and ideology. For both these cases, long-term solutions involving major infrastructure, resources, and altered priorities will be required.

One outcome of the meeting was a set of key messages detailing the impact of vehicles on air and environmental quality. Briefly, these included:

- Forecast growth in vehicle numbers poses an enormous challenge. Solutions will require cooperative action at the global, regional, and urban scale.
- Roads are public space and vehicle ownership does not equate to right of use.
- Cleaner vehicle technology by itself is not sufficient. Comparable effort must now go into Intelligent Transport Systems to optimize traffic movement and use of road space. Improvement in air quality must look to integrate assessments which consider all abatement options including technology.

- Changes to systems of government have failed to keep pace with the expansion of mega cities. Political leadership is needed to cut through overlapping and conflicting jurisdictions and short-time horizons.
- The scale of population movement and urban growth may, in some cases, already have ruled out the 'compact city' but ways need to be found to retrieve its important features.
- Experiences in some cities show that radical and integrated packages of transport measures, based upon management of road space and an enhanced role for high quality bus and rapid transport systems can deliver efficiency and equity and be economically, environmentally, and socially sustainable. However, this is not possible without strong political leadership.
- Transport and air quality must be better integrated at the policy level. While in many cities in the developing world the immediate focus may be on industrial and indoor emissions, anticipatory responses to growth in transport are needed. In the developed world, mandatory air quality targets which undermine cost-effective, locally relevant actions need review.

Scientists from around the world will address these issues in detail, as well as many other important air quality and environmental concerns, at the upcoming 13th World Clean Air and Environmental Protection Congress and Exhibition – see this issue of the Newsletter and www.kenes.com/cleanair.



Professor Molina addresses Seminar participants

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International Meeting Dates

22-25 June 2004, Indianapolis, USA
6th International Urban Air Quality Forum
Details: www.awma.org/ACE2004

21 August 2004, London
IUAPPA International Board Meeting

22-27 August 2004, London
13th World Clean Air Congress

Summer 2005, Japan
IUAPPA Regional Conference
(to be confirmed)

ITALY

After playing a major role in the Dubrovnik Conference, and in sponsoring the Urban Air Quality seminar in Mexico City, IUAPPA's ever active and committed Italian member, led by Giuseppe Zerbo, is exploring the possibility of hosting a conference in Sicily later this year, probably November. Should this prove possible members will be notified within the next few months.

IUAPPA

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Published by
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Design by Sarah Haybittle

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LINKS WITH CLEAN AIR FOR ASIA PROGRAMME

IUAPPA is establishing a closer working relationship with the World Bank's **Clean Air for Asia** Programme. Lars Nordberg represented the Union at the Programme's important *Better Air Quality* conference in Manila in December. With over 200 papers presented the meeting was an important success.

The Programme has now become a sponsor of the World Congress and will be represented at the London meeting.

VISIT BY AMERICAN PRESIDENT

No, not Mr. Bush – the other one! Joe Martone, President of AWMA, will be visiting IUAPPA headquarters in Brighton at the end of February for discussion of matters of common interest and future co-operation between IUAPPA and AWMA. Chief among these will be the joint session which IUAPPA and AWMA will be sponsoring at the London Congress on how to promote greater international co-operation on research and policy development on atmospheric issues.

INTERNATIONAL ADVISORY BOARD

Members and friends of IUAPPA are reminded that the Union is establishing an International Advisory Board of distinguished international experts and supporters of the environment, to help to guide the Union's work over the next few years. Appointment to the Advisory Board is also seen as a way in which the Union can honour distinguished persons who have made an important contribution to the Union's goals.

It is hoped to have the Board in place by the time of the London Congress. It is very important that the Board should be representative of all areas of the world, and member organizations are asked to let the Director-General have nominations as soon as possible.

REGIONAL CONFERENCE IN JAPAN

At the last Board meeting members were pleased to hear that IUAPPA had confirmed its proposal to hold a regional conference in the summer of 2005. Details of the programme and plans will be available at the next Board meeting, but the principal subjects are expected to include urban air pollution and emissions control technology for urban air pollution, energy systems, global warming, and advanced clean automobile technology.

TAIWAN

Continuing the tradition of distinguished speakers from Taiwan addressing World Congresses, the contribution in Seoul of Professor Yuan Tseh Lee (President of the Academia Sinica) will be followed by a major address by Professor Shaw Chen Lui – also of the Academia Sinica – at the London meeting. He will be speaking on the effects of anthropogenic aerosols on climate change in Asia.

IUAPPA TO SPONSOR AWMA URBAN FORUM

Members are reminded that AWMA's 6th International Urban Air Quality Forum will be held in Indianapolis as part of AWMA's annual conference, from 22-25 June 2004. A high quality programme is being put together for the Forum, focusing on integrated particulate matter pollution management, urban air quality sustainability, and air quality and urban/transportation planning.

IUAPPA is now a sponsor of the Forum and it is hoped that many IUAPPA members will be able to attend.

IUAPPA AWARDS

Members are invited to forward to the Director General nominations for both the IUAPPA Congress Award and for the Christopher Barthel Award. The criteria for each Award are given on pages 21 and 22 of the IUAPPA Statutes and Guidelines publication, or are available from Loveday Murley (mail to: lmurley@nsca.org.uk).

Nominations should be mailed, faxed (+44 1273 606626) or emailed to the Director General (mail to: iuappa@nsca.org.uk) before the end of May 2004. Nominations will then be considered by the Awards Committee before ratification by the International Board, with presentation of the Awards made during the World Clean Air Congress.