EFCA Newsletter

European Federation of Clean Air and Environmental Protection Associations

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In this Issue

Everybody loves co-benefits, but how do harvest them?

A year ago EFCA met in Strasbourg to discuss the topic of an integrated approach to air pollution and climate change policies. It appeared then (and also at the connected Stockholm conference of IUAPPA's Global Forum that year) to be easy to have policymakers and politicians agree with the advantages of such an approach and to convince them of the need to break through the historically separate treatment of the two policy fields. The initiative of the Swedish presidency of the EU to hold an international workshop in Gothenburg last month, addressing the topics of Air and Climate policies in a global perspective was, therefore, timely and welcome. An invitation to EFCA to contribute in the discussions in Gothenburg inspired an EFCA Task Force to make some suggestions for consideration by policymakers.

Integration of policies can be considered at various levels.
At the conceptual level the 'one-atmosphere' notion calls for a comprehensive *Law of the Atmosphere*, comparable to the Law of the Seas. Defining its functions and the requirements for their protection, it could serve as a check on the integrity of present and future legislation. Although this would be ideal, it is likely to be a long-term option, involving a lengthy process and may ultimately prove impractical.
At the legislative level, however, it is currently possible to check the consistency of legislation with the dual objectives of better air quality and reducing global warming without such a Law. For such an exercise the EU, being a legislative body in both domains, offers an opportunity. A preliminary screening of some Directives has shown that there is some ground for improvement and this suggestion could be taken aboard with the periodic revisions of Directives. The first opportunity will be the Air Quality Directive which is due to apply from 2013; the process for its revision is supposed to start next year.
It is, however, action at the managerial and practical/technical levels, which most appeal to the sense of urgency which is now felt across Europe. This urgency is reflected in a herd of initiatives at local scales towards climate or energy-neutrality in the coming decades, thus identifying the necessary measures for the long term. The Task Force advised its Member APPA to focus the second EFCA-sponsored Co-Benefit Symposium on actions at the local level. Several articles in the present issue provide further details on the matter.

European developments

Climate change

Prospects for Copenhagen

With the COP meeting in Copenhagen approaching, the prospects for an agreement do not seem very promising. Apart from the European countries (EU, Norway, Ukraine and Switzerland) with their commitment for a 20% reduction of the GHG emissions in 2020 the pledges of other developed countries (Annex I of Kyoto Protocol) have been on the condition that there will be an agreement in Copenhagen. Even then the total reduction in developed countries adds up to only 9% and including informal pledges such as the intention expressed by US president Obama. As adequate commitments by fast developing countries like China and India, as required by several Annex I countries, do not seem very likely the actual reductions may even be less. Moreover, due to the complexity of the technical and juridical aspects the several preparatory meetings of the Parties for Copenhagen, lastly in Barcelona, have not resulted in a negotiation text which invites compromises.

The developing countries do not question the need for substantial emission reductions but they make any commitments dependent on the provision of financial mechanisms for the transfer of clean technology and of the costs involved, including those of adaptation measures. Developed countries do not categorically dismiss their responsibility for the historical GHG emissions, but they seem unwilling to sign up to the estimated 22-45 billion dollar/year public financing which, according the European Commission, may be needed from 2020.

EU position

In a Memorandum of 12 October (Memo/09/445) the Commission outlined its position for the negotiations in Copenhagen. For the EU the essential elements are:

- Binding emission reductions by all industrialised countries based on comparable efforts;
- Appropriate action by developing countries to limit emissions;
- A framework for action on adaptation to climate change;
- Action to reduce deforestation and forest degradation, and promote sustainable forest management in tropical regions;
- Updated accounting rules for emissions from land-use, land-use change and forestry;
- An expanded international carbon market to generate financial support for developing countries and promote cost-effective emission cuts;
- Provision of international public finance to developing countries to supplement financial flows from the carbon market and domestic investment;
- A comprehensive package on technology cooperation and funding to accelerate development of a low-carbon global economy.

The objective to halt deforestation is connected to the complicated accounting rules on land use, land use change and forestation (LULUCF) which should create the necessary transparency and allow verification. This would finally make it possible to bring LULUCF under the regime of a worldwide Emission Trading Scheme (ETS); the expansion of the European ETS is also part of the proposal of the Commission to the Parties in Copenhagen.

On 10 September the Commission had already published a proposal (IP/09/1297) for a proportional share of the EU in financing the costs of climate change in developing countries, based on the earlier White Paper, Adapting to Climate Change.

Response in the Council

The Environment Council in its meeting of 21 October approved the proposals of the Commission to the Parties in Copenhagen. This includes the proposal for financing an amount between 2 and 15 billon Euro/year by 2020 and a short term commitment to the amount of €0.5-2.1 billion for 2010-2012. The Environment Council

also agreed to a long-term target for emission reductions of 80-90% by 2050.
The European Council of 29-30 October endorsed the conclusions of the Environment Council, although it made the financial commitments conditional on similar commitments from the side of the other developed countries.

Climate summit at the White House
While the negotiation text for Copenhagen was being improved at Working Group level by the Parties in Barcelona, a summit at the White House between EU and US Government was held on 4 November. Among several other topics, climate was discussed at the highest level.
"The meeting was mainly a climate summit where we discussed how to bring about an agreement in Copenhagen. We have shown our political will and understand each others political processes. Now we will help drive those processes forward," said Swedish Prime Minister Fredrik Reinfeldt after the meeting, representing the EU-presidency. He continued: "We need a global agreement in Copenhagen which meets the two degree goal and presents a solution for climate financing."
President Obama also took up the importance of making progress on climate issues at a press briefing following the meeting.
"It is imperative for us to redouble our efforts in the weeks between now and the Copenhagen meeting to assure that we create a framework for progress in dealing with what is a potential ecological disaster."

G20 Finance-summit in Scotland
The positions were confirmed at the G20 meeting of Finance ministers on 8 and 9 November where none of the countries was willing to detail a commitment in financing the costs for the developing countries.

In conclusion, the general opinion among the trend watchers is that the COP meeting in Copenhagen is too early for an agreement which includes the badly needed commitments of all.
The technical details of any agreement have to be sorted out further. And the United States must have completed its discussion on proposed national legislation. Copenhagen may at best pave the way for an agreement next year by detailing its main lines. Still, we may not know the exact outcome of Copenhagen before closure of the COP meeting.

Short news

Kyoto target within reach
The provisional emission figures for the year 2008 in the EU15 suggest that the Kyoto commitments of an 8% reduction in the period 2008-2012 will be met in time. After a further fall with 1.3% during 2008 the total reduction now stands at 6.2% below the levels in the base year 1990.

Emission trading
On 18 September EU Member States approved a list of industrial sectors which are to receive a higher share of greenhouse gas allowances than others sectors free of charge. The list is meant to discourage 'carbon leakage', reducing the risk that companies in these sectors which are subject to strong international competition might relocate from the EU to other countries that have less stringent constraints on greenhouse gas emissions.
The list applies to 164 sectors and sub-sectors which account for about a quarter of the total emissions covered by the EU ETS. It refers predominantly to the manufacturing industry. The list will apply for five years, but is subject to revision if the Copenhagen agreement would give reason for it. A decision by the Commission is foreseen at the end of this year after scrutiny by the European Parliament and the Council.

Montreal Protocol
With the ratification by Timor-Leste on 16 September 2009 all 196 members of the United Nations have now ratified the Montreal Protocol. In a statement to welcome this universal recognition Commissioner Stavros Dimas referred to the great progress the Protocol has achieved for the ozone layer as well as the global climate.

EEA Reports
Regional climate change and adaptation — The Alps facing the challenge of changing water resources - EEA Report No 8/2009 Published: 9 September 2009

Spanning the centre of continental Europe, the Alps play a crucial role in accumulating and supplying water to much of the continent. As such, they deliver vital ecosystem services both within and beyond the region, underpinning social

and economic wellbeing in vast lowland areas. Troublingly, the alpine climate has changed significantly during the past century, with temperatures increasing by more than twice the global average. Drawing on the most recent knowledge of climate change impacts in the Alps and experiences across the region, this report analyses the risks that climate change presents to the region's water supply and quality, identifying needs, constraints, opportunities, policy levers and options for adaptation. It extracts policy guidance on adaptation practice and aims to assist regional and local stakeholders in developing robust adaptation strategies.

EEA Technical reports

Assessment of ground-level ozone in EEA member countries, with a focus on long-term trends - Technical report No 7/2009 Published 20 July 2009
Extended time series for ozone (which are available for only four European countries) were analysed. The 14-16 year data collections in The Netherlands and the UK show a decrease during the nineties and further leveling off thereafter. In Austria and Switzerland concentrations do not show a trend. The authors point to the fact that tropospheric ozone has been recognized as a hemispheric phenomenon and considerable uncertainties exist on the magnitude and distribution of the intercontinental influx of ozone and its precursors. A clear explanation for these trends is not available.

European Community emission inventory report 1990-2007 under the UNECE Convention on Long-range Transboundary Air Pollution (LRTAP) - Technical report No.8/2009 Published 2 September 2009
The report provides data on the reductions in the period 1990-2007: SO_2 -72%; CO -57%; NMHC -47%; NO_x -36%. For $PM_{2.5}$ a 2% reduction since 2006 was recorded.

NEC Directive status report 2008 - Technical report No 11/2009 Published 1 October 2009
This report presents the emissions and projections data reported by Member States in the 2008 reporting round under the National Emission Ceilings Directive (NECD). The NECD sets pollutant-specific emission ceilings for each Member State of the European Union to be met by 2010. It also lays down the requirements for the Member States to compile and report information on past emissions, future emission projections and national actions being taken to control emissions of air pollutants. As part of these requirements, Member States shall prepare and annually update national emission inventories and emission projections for 2010 in respect of four important air pollutants: sulfur dioxide (SO_2), nitrogen oxides (NO_x), non-methane volatile organic compounds (NMVOC), and ammonia (NH_3). A number of Member States have indicated they will not achieve at least one of their 2010 emission ceilings. At the aggregated European Community level, the 'with measures' projections reported by Member States imply that for some pollutants the aggregated EU-27 emission ceilings defined in Annex I and II of the NECD will also be exceeded. The EU-27 is only likely to meet both the aggregated ceilings set in the NECD Annex I and II for SO_2 and NH_3.

Introducing EFCA's new president

We had a short conversation with EFCA's new president, Jean-Marie Rambaud.

Question: *Congratulations with your election as EFCA's president for the next three years! You have known EFCA since about 10 years and have followed it and contributed to its development. How do you see the present position of EFCA as organisation and in the European arena?*

JMR: Let me first tell you that I feel honoured that Members decided to elect me as their president. During the few last years, EFCA has substantially raised its profile and increased its productions and thus reached the status of a recognised partner of the European institutions.

It has proven that an independent European federation addressing atmospheric problems and their solution, taking a position at the interface between science and European policy, has an added value. European authorities have acknowledged EFCA's recent inputs to European policy optimisation and opened doors for future cooperation.

Also, internally EFCA made considerable progress. Recently, it detailed its strategy and established a work plan for the next 3 to 6 years. Its website has been refurbished and its newsletter is now widely circulated. Steps have been taken to increase membership, notably in Central Europe.

Question: *An organisation in good standing may not be served well with new initiatives. Do you see any challenges then for the next years?*

JMR: It is obvious that the new presidency will have to build on the strengths and opportunities patiently gathered under the past presidency. But EFCA has also to face its weaknesses and be aware of possible threats for its further harmonious development. This may sound as the dark side of the medal, but I personally think that we would gain much by clarifying these aspects through a collective discussion, under the well known SWOT scheme.

Question: *Have you any suggestions as to how the internal coherence can be reinforced?*

JMR: As I see it, the main progress, both towards the acquisition of a common federative culture among our associations and for the accuracy and efficiency of our output, will come from a more cooperative functioning. Up to now, EFCA activities have mainly depended on national initiatives stamped with EFCA logo. Recent examples have shown the considerable interest in a co-elaboration of projects, through ad hoc task forces and of their collaborative implementation, notably sharing documentation and combining relationship networks.
Small task force meetings, teleconferences and shared drafting of documents can deliver such collaborative functioning very effectively.

Question*: Do you think that it will be feasible to actively involve the majority of the EFCA Members in EFCA's projects and develop a common culture of cooperative functioning?*

JMR: One of the difficulties EFCA encounters comes from the great diversity of its member's profiles, scopes of interest, resources, both financial and human, and also regarding the national contexts in which they operate. This appears as a weakness when it comes to defining common standards of functioning, but it can be considered also as an opportunity to enrich debates and problem analysis through benchmarks; comparing and contrasting contexts, stakes, approaches and methodologies. The European Institutions may be interested in such scientifically based, "non-politically designed" comparisons, and national EFCA members can get additional recognition from their partners in national governments, the academic world and industry out of such comparative insights.

Question: *Do you have any other suggestions for the EFCA Members?*

JMR: The range of ideas, mutual help and assistance among members should be developed. When asked by their national partners to provide input on such or such a problem or policy project, members should be assured that through the EFCA network they can get a range of information on the way the same problem is being considered in other European countries. More generally, communication and exchange of information should be developed between members and with the EFCA secretariat, as well as sharing lists of experts and reference documentation. With such enlarged insight capacity, belonging to the EFCA network can appear as a real bonus and a "faire valoir" (support) for each member association.

In addition, if EFCA has recently gained increased recognition from European institutions, it must also increase its visibility towards the national

authorities of its member's countries, and even within the public at large by seeking press coverage if the occasions offer themselves, such as last year with the symposium on Air pollution and climate change integration in Strasbourg. Members should be aware of this added value and use it to the advantage of their own organisations.

These are the few improvements to EFCA functioning that I hope I can bring, with the support of my national association APPA.

However, I do believe that, apart from the statutory aspects of the Presidency, EFCA governance must tend to be a shared commitment and the responsibility of all delegates in EFCA's Assembly and in particular the members of the executive committee.

Curriculum vitae (abbrev.)

Jean-Marie Rambaud (1947) has degrees in Public Law and in Political Sciences and worked for Electricité de France during a considerable period in several functions. In 1999 he became Director of APPA in which function he organised several EFCA activities, among which the successful, recent symposium "How to fight Air Pollution and Climate Change together effectively in Europe?" in 2008. Upon his retirement in 2007 he became APPA's vice-president and Chief Editor of the scientific journal Pollution Atmosphérique. He was EFCA's vice-president since 2006.

Electricity in Europe and Climate

EURELECTRIC, the organisation of electricity producers in Europe, organised a conference in Brussels recently on the topic: "Integrated implementation of air pollution and climate change policies in the European Union: Power sector perspective". EFCA president ***Jean-Marie Rambaud*** *was invited to present the conclusions of the EFCA conference in Strasbourg in November 2008 and reports on the discussion.*

Global warming has confronted the European energy sector with the enormous challenge of a transition towards a CO_2-neutral electricity production in Europe. The sector is taking its responsibility and the conference in October is to be acknowledged as an open multi-stakeholders debate on this vital utility function in the EU.

At the conference the will of the European electricity sector to move towards a carbon-neutral power supply in Europe by 2050, already presented in Strasbourg, has been reaffirmed.
The Eurelectric project, which was officially presented on 10 November 2009, plans for a reduction of CO_2 emissions for the power sector from 0.45t/MWh to 0.10t CO_2/MWh by 2050.
The conditions for such a drastic change include:

- Technology development, including improved efficiency in electricity generation, transmission & distribution
- Delivery of new generation capacity (retirement dates for the existing generation park still to be detailed)
- Emission trading and favourable CO_2 price evolution; no regulatory constraints
- Infrastructure development, including decentralised power generation & smart grids / metering
- Development of CCS techniques and capacities
- An integrated European power market

In addition, the power sector is committed to take initiatives which could further increase energy efficiency and reduce energy consumption.

Concerning a better integration of air pollution and climate change policies, which is EFCA's current recurrent theme in support of cost and environment effective European policies, the views of the electricity sector, though basically positive, betrayed some scepticism. It was explained that integration of climate change and air quality policies will automatically result from individual company investment decisions optimising across multiple goals. The co-benefit

approach and the achievement of cost-effectiveness are not new to this sector.

At the conference the possible interactions of the IPPC recast with the climate related ambitions of the energy sector were also discussed. The invited rapporteur on the IPPC directive in the European Parliament gave a strong indication that CO_2 standards are not to be included in IPPC mechanisms: a system of emission limit values and performance criteria would significantly reduce the effectiveness of the Emission Trading Scheme for CO_2. Also, BAT would supposedly already select measures which are cost-effective on both grounds.

Intermediate policies for air and climate

Short Report on the Workshop of the EU-presidency

At the initiative of the Swedish presidency of the EU a workshop on the contribution of air pollution policies to climate stabilisation and co-control was held in Gothenburg from 19 to 21 October. It was a most interesting meeting with a number of high level contributions and more than 250 delegates from all over the world. After the IUAPPA symposium on the development of an international framework for integrated co-benefits strategies in Stockholm, 17-19 September 2008, , and the EFCA symposium on policy integration at the European level in Strasburg, 6-7 November 2008, this workshop was the third major science to policy meeting addressing the necessity for a tighter integration of air pollution and climate change policies.

After a dozen presentations in plenary session providing a reminder of the present knowledge on the interactions, co-benefits and dis-benefits of different measures and of the political and regulatory frameworks in place to address both problems, eight working groups were scheduled to discuss the diverse issues related to taking a coordinated approach to both issues and to draft recommendations for urgently setting an efficient management framework for implementing integrated policies.

The presentations, conclusions and recommendations of this workshop can be found at www.naturvardsverket.se/airclimconf .

Though it is difficult to summarise such a wide array of science and policy oriented inputs, in the context of this newsletter, we have selected the following elements out of the working groups debates:

The consensus on basic scientific arguments for AP and CC policy integration is now widely shared. Policy makers need to be aware of potential short term climate effects induced by changes in air pollution caused by ongoing policy measures.

Climate benefits and dis-benefits of air pollution control

Reducing O_3 concentrations will cool the climate. Lower ozone concentrations will probably also improve the CO_2 uptake of the biosphere. Reductions in methane, particularly with regard to background ozone, is a 'no regret' policy. It should therefore be tackled [also] in regional air pollution policy frameworks such as CLRTAP. All chemical species contributing to particulate matter must be further reduced, due to their health impacts. Simultaneously, and in order to avoid further rapid warming, the BC to ($OC+SO_4$) ratio of overall emissions, should be reduced by selecting appropriate controls in the relevant sectors. In addition to PM, tropospheric ozone and methane concentrations must be reduced to achieve climate neutral (or even friendly) air pollution policies, and avoid rapid climatic changes.

Interactions with ecosystems

Impacts of ozone on vegetation and the feedbacks to climate need to be included in global climate models to better predict consequences for C sequestration and hydrological cycles. Climate change scenarios need to take into account nutrient (especially nitrogen) limitation of carbon sequestration, biodiversity changes and other nitrogen effects which are not directly related to

CO_2. The difference in ecosystem effects of reduced vs. oxidised N has to be taken into account in air pollution and climate change abatement strategies. This means that ammonia emission reduction should be given higher priority in emission scenarios because of its important effects on ecosystems and carbon sequestration capability.

Health effects from air pollution in a changing climate

There are important health effects, including increased mortality, that already occur due to air pollution. Furthermore, the world population is aging and the prevalence of chronic conditions like diabetes is increasing. These groups are more susceptible to the adverse effects of both air pollution and increased temperature. There is an increasing need for strategies dealing with climate change to take into account its impact on air pollution related health effects.

The serious health effects from biomass combustion emissions need to be considered. This includes not only the well known problem of biomass burning for cooking and heating, but also the biomass burning related to agricultural practices, including bio-fuel production, and for energy generation.

Energy conservation strategies need to be carefully evaluated with respect to their effect on the indoor environment.

Sector control policies

Measures targeting the activities that are at the source of emissions are likely to lead to synergetic effects for air pollution and climate change. Therefore, all categories of measures are important and should be considered: not only technology but also behavioural, demand management, energy efficiency and energy mix/structural change measures. Next to air pollution and climate change co-benefits also other objectives should be considered, e.g. energy security and social equity.

For reasons of economic efficiency, market-based policy instruments are frequently preferred. Explicit control instruments such as regulation and planning should also be considered. They can be cost-effective and their effects are often more predictable than those of market-based instruments.

In sector control policies, the speed of measures and their cumulative effects should be considered, along with possible conflicts between short-term and long-term optimality. For example, changes to the energy structure may be more beneficial in the long term than the use of end-of-pipe technologies on fossil fuel based power plants. But, if their investment takes too much time to meet short term environmental targets, the use of certain technologies may be necessary even if this is sub-optimal in the long term.

It has been underlined that agriculture was too often forgotten in the share of responsibilities, and the same is true of the domestic sector.

Developing countries

For developing countries, AP impacts, sustainable economic development, industrial competitiveness, energy security are still the main drivers, and climate change mitigation is a potential co-benefit of these.

We can identify air pollution sources/sectors where there is a big overlap between the emission of air pollutants and climate forcers in developing country regions:

1. Transport sector
2. Biomass burning for domestic cooking and heating
3. Industrial and power generation
4. Waste burning and vegetation fires

There are different problems and solutions in each region. Thus policies must be developed according to the needs of the different regions.

There are three major requirements for international society assistance:

- Capacity building;
- Financing
- Technology transfer

Cost and benefits from combined policies

The full integrated assessment of impacts from emissions of both air pollutants and greenhouse gases is extremely challenging. CBA and other evaluation techniques can play an important role in supporting intermediate air & climate policy making. For cost and benefits analysis of combined policies, full integrated impact assessments should not only consider health but also water, food, biodiversity, social impacts, though difficult to monetarise. There is a need for thorough LCA of bio-fuels.

The choice of temporal and spatial boundaries, atmospheric and biogeochemical responses, and economic feedback mechanisms can dramatically change cost-benefit results.
Clear vision of intermediate and long-term air & climate targets and measures from policymakers would aid the scientific community in structuring their research priorities.
Geo-engineering is relevant in the cost-benefit debate.

How to develop optimal time-framed air pollution and climate change policies? Which international platform?

The idea of a global framework or of a network of the networks to address atmosphere as a whole at global level has been put on the table. But the urgency of problems can only be answered by borrowing existing structures.
No single international forum will be able to handle all aspects of the air pollution – climate linkage. UNFCCC and IPCC should address the short-lived climate factors (SLCFs), but cannot be the only forums to address these issues. UNEP is a key forum for connecting to national environment ministries. WMO (GAW, WCRP) can be useful in connecting to the global science community. At the current time, we are not ready to launch a new global intergovernmental panel to address these issues.
Currently, a network of regional initiatives may be more useful than a binding global agreement to address air pollution and climate change.
National representatives should request that IPCC AR5 address air pollution – climate change linkages (especially in WG3) and the air quality community should take an active role (as authors) in the IPCC process to address these issues.
National representatives to the UNFCCC should explore the concept of "a work programme" to address short-lived climate factors (as proposed by Micronesia), including efforts that address the linkage between air quality and climate change.
National governments should support collaboration and communication between existing regional networks and intergovernmental agreements (in North America, Europe, and Asia), including financial support for the Global Air Pollution Forum and new emerging regional networks (in Latin America and Africa).

The existing CLRTAP monitoring and modelling infrastructure has been very effective in guiding air pollution abatement policy (effects-based approach). In recent years, it has increasingly taken climate change into account; however, this has not been systematically used to advise policy.
In the revision of the Gothenburg Protocol, the LRTAP Convention should consider the adoption of measures that address short-lived climate forcers and the co-benefits of air pollution control and climate change mitigation, including Black Carbon, CO, and methane.

The CLRTAP is recognised as a successful multi-national emission control instrument and could play a leading role in building regional instruments around the world. It could supplement the work already begun through its outreach activities and by the Global Atmospheric Pollution Forum in building regional instruments around the globe and allowing hemispheric approach. The revision of the Gothenburg protocol could assess the interest and feasibility of including climate effects of air pollutants. The CLRTAP could take on board BC, tropospheric ozone and its precursors. A task force could work on it to be integrated in the negotiations.
The need to develop a protocol to address background ozone on the hemispheric scale could be explored.

General remarks on an EFCA view point

A great part of the workshop was actually dedicated to the ways and means to raise the profile of AQ in CC arena: How to establish stronger links between relevant bodies in the AQ and CC areas (CLRTAP, UNFCCC, IPCC, UNEP)?
How to suggest and promote a chapter on co-benefits – dis-benefits - in the IPCC AR5?

In this context, the European Union legislation and projects had a rather small place, though we might have been expecting that a workshop in Sweden, under the Swedish presidency of the Union, would place EU policies at the centre of discussions.
The main lines of the EFCA discussion note have been presented in Working Group 8 which had to synthesise the whole workshop.

The representative of DG Environment repeated the EU positions which had already been developed in the introduction of the workshop.
In brief, DG Env says that the EU is quite aware of the interest and needs for a tighter integration of air pollution and climate change stakes in EU policies, but that current efforts to implement existing regulations and plans should not be distracted by additional difficulties.

Further consideration will be given to integrated policies with the revision of the AQ directive in 2013. This may look a long way off, but revision will start in 2010. Then it can be considered through the NEC Directive and the Industrial Emissions Directive that will come under discussion, and it is already included in some ways within the Climate Energy package.

Jean-Marie Rambaud

Non-CO_2 Greenhouse Gases - 5

Science, Reduction Policy and Implementation

Report on the EFCA symposium in Wageningen

In July 2009 EFCA Member VVM-CLAN conducted their 5th International Non-CO_2 Greenhouses Gases symposium. With around 200 participants and more than 150 presentations and posters, the series continued to function as the most relevant meeting place of those in science, industry and policy involved in this area. The symposium provided an overview of options for the successful implementation of emission reductions of NCGGs and summarised our present understanding and existing uncertainties in the science of these gases.

Fluorinated gases

Fluorinated gases ('F-gases': CFCs, HCFCs, HFCs, PFCs, SF_6) are probably the most potent category of greenhouse gases. When climate change policies still had to be initiated the F-gases were already under political scrutiny because of the adverse effects of the CFCs (chlorofluorocarbons) on the ozone layer. Under the Montreal Protocol their phase-out and substitution by HCFCs was followed by a phase-out of these as well, allowing HFCs as substitutes. At the time of their market introduction, however, also emissions of HFCs (and PFCs and SF_6) were already considered as unacceptable because of their high global warming potential (GWP) and long residence time in the atmosphere.
At the symposium substantial progress in the emission reduction of all of F-gas categories was reported. The semiconductor industry is on track towards a 90% reduction of PFCs. It should noted, however, that semiconductors are still a fast expanding market. The introduction of proper handling in industry of SF_6 (used in electrical devices) is producing emissions reductions as well. With respect to HFCs (in air conditioning and refrigeration) encouraging results are being reached with alternative cooling agents.
New atmospheric observations were reported for SF_5CF_3. SF_5CF_3 is an interesting compound due to its extremely large GWP(100yr) of 18000 (CO_2 =1). The sources of SF_5CF_3 are not well known, but might be associated with the production of halocarbons and SF_6. Its atmospheric concentration has increased since the 1960s, but now seems to have levelled off.

It was reported that, from the viewpoint of absolute reductions of GHGs, until now the Montreal Protocol has been five times more effective than the Kyoto Protocol. While the Kyoto Protocol detailed quantitative emissions reductions of all GHGs, the Montreal Protocol regulates the production and distribution of F-gases, including their phase-out. The suggestion that it would be more effective to bring all F-gases under the regime of the Montreal Protocol (a view held by the European Commission) received the support of two thirds of the participants.

Methane

With nearly 30 related presentations and another 10 posters, methane appeared to be the hottest topic of the 5th NCGG conference. The present interest in methane was fuelled by new uncertainties in the global methane budget which became apparent when, in 2006, concentrations started to rise at a faster rate than expected.
On the source side, additional emissions from tropical wetlands as well as thawing tundra were

suggested as likely causes with variable shares over the years. It was noted that a small decrease in the hydroxyl radical concentration in the atmosphere could also be responsible as its reaction with methane is the dominating sink. In addition, the sink through reaction with the chlorine radical is also thought to be reducing. New results were also reported on the reduction of methane emissions in agriculture.

Nitrous oxide

The global budget of nitrous oxide (N_2O) is still a matter of uncertainty as well. Forest soils as well as agricultural soils are major sources. The role of fertilisers in the latter is still not well quantified as it is governed by a number of variables. Industrial sources are increasingly effective in reducing N_2O emissions. In agriculture the use of nitrification inhibitors may result in an emission reduction of some 25%.

Black carbon

There is recently more attention being placed on the contribution of black carbon to global warming. It was pointed out that its emissions are still increasing. This is due to the fast industrialisation in China, India and countries in south-east Asia and Latin-America where stringent emission standards are not in place yet, and is also reinforced by big wildfires in the tropics in dry El Nino years. A new investigation in source strengths suggested that present representation of black carbon in emission databases may be too low by a factor two. Black carbon will be a component in upcoming climate change legislation in the USA. There is concern, however, that reductions in its emissions and that of co-emitted SO_2 - which produces the cooling white sulphate aerosols - will result in a net increase in radiative forcing.

Policy approaches

Several speakers indicated that many cost-effective solutions for the reduction of methane and nitrous oxide in agriculture are still not being actively pursued.

Emission trading of NCGGs is a seemingly logical step in the fight to reduce GHG emissions. However, several experts warned against an early decision to do that because of the high uncertainties in emission data and the resulting lack of transparency of the procedures The different lifetimes of these gases in comparison to CO_2 are also a complicating factor. In particular, methane, nitrous oxide and black carbon are presently considered as unsuitable fr this treatment.

A more complete report on the conference is presently being prepared. The programme and a selected number of presentations are currently available at www.ncgg5.org.

Participants at the fifth symposium on Non-CO_2 Greenhouse Gases in Wageningen

News on EFCA and its members

EFCA presidency

New EFCA president …
On 21 September EFCA Members concluded a ballot procedure and elected Jean-Marie Rambaud as EFCA's president for the next three years. Jean-Marie had been nominated by EFCA's French Member APPA which is one of EFCA's founding Members.

… transfer of responsibilities …

At an informal meeting in Lille a week later the now past-president, Giuseppe Fumarola, confirmed and marked the election by transferring his responsibilities to his successor.

… and farewell to his predecessor
It is worthwhile to highlight EFCA's progression during the seven years that Giuseppe Fumarola, with the strong support of his association CSIA, and notably its president Beppe Zerbo, presided over EFCA.
2002: EFCA opened its website
2004: first joint Workshop in Brussels with the European Commission
2005: second joint Workshop in Syracuse; first EFCA Policy Initiative
2007: EFCA strategy agreed; EFCA starts a Newsletter
2008: EFCA renews its website
2009: EFCA agrees on a medium-term workplan

As past-president Giuseppe will be stay active as member of the Executive Committee.

Letter of the past-president

Dear Editor,
Now that my long presidency has come to its conclusion, I would like to send a short note to the Members of the EFCA associations. What better way for this kind of communication than the EFCA-newsletter?
As you may remember, one of my first efforts as President was to set up, with my own scarce capacity, the EFCA website-very unprofessional indeed. But I was convinced that it would be useful to deliver the message of a re-launch of EFCA, and invite members to feel responsible and obliged to participate. The website was even provided with a Forum ready for use. After a couple of years, when from several directions we were urged to make the website more professional, I understood that the message had been welcomed.
Criticism, comments, discussions, and proposals must be the spirit of a Federation engaged in a continuous working session to build on and extend the short time available in limited sessions in workshops and conferences. Now that we avail ourselves of two main means of communication, website and newsletter, we encourage EFCA members to make them more productive.
As a conclusion of my presidency, I collected my thoughts on air pollution and climate change in a paper, available on the website, and delivered to our Associations. It is an analysis of many approximations and inconsistencies which may be found in directives, reports and documents concerning environmental issues. The point is that for several decades we have been dealing with air pollution and climate change along parallel tracks and that now, though the scientific community as well as many policymakers share the sense of

urgency of an integrated approach, it seems very difficult to change direction.
On the other side, it feels there is a need for a new deal on air pollution. UNECE has launched the project to build the future "Environment for Europe" and already established to have an *ad hoc* Ministerial Conference in Astana, Kazakhstan, in 2011, with the very objective to look for how to strengthen the links between environmental policies, competitiveness, and social and economic prosperity. Meanwhile the stakeholders have been called upon for highly relevant debates on those issues.
In this respect EFCA has great potential and opportunity to give a relevant contribution by involving its wide community qualified in any technical, industrial, scientific, administrative and political aspect.
I know that this is within the aims of the new EFCA President, Jean-Marie Rambaud, and I am confident in his many capacities, that he has demonstrated on several occasions.
Dear Editor, dear Joop, let me thank you for the great, patient, indefatigable and qualified support you gave me for seven years as Secretary-general and Editor. I conclude by wishing Jean-Marie a good, pleasant and fruitful time during his presidency, and send my whole-hearted regards to EFCA's Community.

Giuseppe Fumarola
Past-President EFCA

Implementation of EFCA workplan

In connection with a recent workshop in Lille of the regional APPA sector, members of the Task Force for the Workplan had the opportunity for a meeting on 29 September on the implementation of the EFCA-workplan which concentrated on the topic of "Co-Benefits". Participants were Jean-Marie Rambaud, Giuseppe Fumarola, John Murlis and the Secretary General .

It was agreed that the second conference on this topic will focus on "Co-benefits at the local level". APPA will be the host and make the arrangements, probably again in Strasbourg next autumn.

The invitation to EFCA to participate in the discussions of the Workshop in Gothenburg, organised by the Swedish presidency of the EU on this topic resulted in the decision to prepare a dedicated discussion note, building on an already available paper by Giuseppe Fumarola. The discussion note was finalised by 15 October and made available to the participants in Gothenburg, together with the earlier documents of EFCA's conference in Strasbourg in November 2008; the paper by Fumarola is an annex of the Note. The discussion note and its Annex are available at the EFCA-website.

News from members

CAPPA

The Croatian Air Pollution Prevention Association (CAPPA) recently organised its sixth international conference "Air Protection 2009" under the title "Measures for Decreasing Air Pollution Levels". From 14-19 September some 150 experts met in Zadar, Croatia.
The conference was organised in cooperation with the Institute for Medical Research and Occupational Health and the Ministry of Environmental Protection, both in Zagreb, and was sponsored by several producers of monitoring equipment. The programme, which addressed industrial pollution, monitoring studies and legislation, had a special session addressing asbestos. There were over 50 presentations and it attracted participants from a number of neighbouring countries, such as Slovenia, Bosnia and Austria.

APPA

For several years the Région Nord – Pas de Calais of APPA has had a programme looking at transboundary air pollution problems, in cooperation with local authorities in south-east England and Flandres. In view of the recent urgency to also address climate change, on 28 September they organised a workshop to discuss the options for co-benefits at the local level and to consider proposals for joint study projects. Among the invited experts were three EFCA delegates, Giuseppe Fumarola, John Murlis and the Secretary General, Joop van Ham, who each made a short presentation.
APPA will soon convene again in Lille (25-27 November 2009) for a national conference on Environment and Health.

TUNCAP

Members of the Turkish National Committee for Air Pollution Research have taken an initiative for an Open Access Journal under the title "Air Pollution Research". Details of the initiative, led by Drs Mustafa Odabasi and Tolga Elbir of the Dokuz Eylül University in Izmir, can be found at http://www.atmospolres.com. A first issue is due for January 2010.

IUAPPA

World Congress 2010

The Call for papers of IUAPPA's 15th World Clean Air Congress is now open. The Congress is to take place from 12-16 September 2010 in Vancouver, Canada and the Conference theme is "Achieving Environmental Sustainability in a Resource Hungry World".

The programme of the Congress is divided into four main sub-themes: Sustainability, Science, Policy and Industry and displays a comprehensive scope which addresses present challenges such as climate change and its impacts, the international policy agenda, the challenges for industries and various aspects of atmospheric science and its application. The various sub-topics can be found at www.iuappa2010.com. The deadline for abstracts is 12 March 2010.

Regional Conference in Tunis

This month a regional IUAPPA Conference is to take place in Tunis. It is the first time that IUAPPA has set foot in North Africa. Under the title "Better Air Quality for North Africa" representatives of Tunis and its neighbouring countries will be able to discuss their problems with representatives of major international institutions, including WHO, UNEP, IPCC, CLRTAP, EU, IIASA and US-EPA.

Calendar

CfP = Deadline Call for Papers

KRdL Expertforum Ëmissionshandel und Carbon Capture and Storage
23 November 2009, Bonn, Germany
(http://www.vdi.de/8327.0.html?&tx_vditwevent_pi1[showUID]=73)

ETTAP 2010 18th Transport and Air Pollution Symposium
18-19 May 2010, Zürich, Switzerland
(www.inrets.fr/services/manif/ettap09/index-EN.htm); CfP: 20-11-2009

15th IUAPPA World Congress: Achieving environmental sustainability in a resource hungry world
11-16 September 2010, Vancouver, Canada
(www.IUAPPA2010.com); CfP: 12-03-2010

ITM 2010: 31st NATO/SPS International Technical Meeting on air pollution modelling and its application
27 September -1 October 2010, Torino, Italy
(www.int-tech-mtng.org); CfP:31-1-2010

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Burg. Scholtenstraat 1, NL-2645 NL DELFGAUW
E-mail: info@efca.net
Fax: +31-15-261 3186
Website: www.efca.net