

One atmosphere – making the connections

At the end of September EFCA's French member APPA hosted a conference which dealt with three crucial environmental problems. The conference aimed to provide answers to the challenges of the "Vancouver Declaration" from IUAPPA's 15th World Congress (2010):

- *Air Pollution and Climate Change*
- *Ecosystem services and Biodiversity and their interaction with Air and Climate*
- *International cooperation on Air Pollution*

The conference was a joint activity with IUAPPA, EFCA and the Global Atmospheric Pollution Forum and was co-sponsored by the French Agency Adème. The most relevant messages of the conference on these three topics are summarised below.

Air Pollution and Climate Change

The UNEP/WMO assessment of black carbon and tropospheric ozone has clearly demonstrated the co-benefits for climate, health and food security of addressing short-lived climate forcers (SLCF).

Examples were presented that a small number of emission reduction measures for methane and black carbon in use in different regions around the world, using existing technologies, in the domains of transport, residential, industry and agriculture, could lead to significant health, crop, ecosystems and climate benefits in the near term.

Much wider and more rapid implementation is nevertheless required to achieve the full benefits of SLCFs reduction, and despite these near term benefits, reducing warming in the longer term will require action now to also reduce CO₂ emissions.

Though there is room for the question of their integration in global climate agreements, the local and regional character of these issues rather suggests the need to tackle them through regional agreements, such as the CLRTAP, which has taken the lead by integrating Black Carbon into the revision of its Gothenburg Protocol. Other such regional agreements are being developed or encouraged, notably by the Global Atmospheric Pollution Forum.

At smaller geographic scales of local government, progress can be and is also made in integrating air pollution and climate change policies, though at a slow pace due to institutional and organizational barriers. Local governments have a wide selection of possible means to achieve co-benefits.



Ecosystem Services and Biodiversity in their interactions with air and climate

The new strategic plan of the UN Convention on Biodiversity points to the need to reduce pollution to levels that are not detrimental to ecosystem functioning and biodiversity. There is a need, however, for a comprehensive set of indicators, including for air pollution and climate forcing, for monitoring the progress in meeting targets.

After acid rain had its impact on forests, acidification and also eutrophication have been successfully addressed by the CLRTAP through the concept of critical loads and levels which includes ozone and indirect effects of atmospheric deposition. Consequences for ecosystems of the latter are now rather well known, notably after the European Nitrogen Assessment. Dry N deposition requires better characterization though. The most serious threats are from ammonia, for which there has been little progress in reducing emissions. The Habitats directive is not adequately protecting Natura 2000 sites from atmospheric nitrogen pollution; this is because measures designed to protect large areas may not be sufficient for local protection. Although the pressures on biodiversity are clearly leading to loss, it proves difficult to tease out the impacts from air pollution from the other pressures which cause habitat disturbance, such as land use and climate change.

There are still considerable practical difficulties in the application of economic ecosystem-biodiversity values to public decision making; a potentially more profitable course may be to focus on economics of polluting sources. Often values ascribed to biodiversity loss seem trivial compared to values attached to detriment of human health, and biodiversity concerns rank low in public priorities. It seems urgent though to develop instruments that make socially desirable investments attractive for market actors.

International Co-operation on Air Pollution

The present globalisation of economies has created a need for a hemispheric, if not global approach of atmospheric pollution. However, there is presently no policy framework for regional/hemispheric pollutants, no air pollution-climate change link in international policies, no well-integrated multi-pollutant approach across the regions, no global voice for air pollution to enable interaction with other global environmental actions, and a lack of awareness at a technical level between different parties in the field of air pollution. For an effective global/hemispheric approach there is a need for three essential components:

- a data/information and coordination mechanism
- an assessment process
- a negotiating platform.

SLCFs could be a key towards more effective global and integrated action offering incentives for taking measures with co-benefits in mind.

“Grouping” of existing regional air quality agreements is needed to tackle the global issues such as SLCFs which may require tailor-made approaches: legally binding agreements may not be the best way forward everywhere. Also, health and crops may be stronger driving forces in developing countries than climate change (economic losses are easier to calculate and progress is also easier to record).

While grouping together can be useful, ongoing sub-regional and regional approaches should be continued. Even global approaches, such as the Task Force on Hemispheric Transport of Air Pollution (TF HTAP), need to take account of regional contexts.

Scientific groupings of information networks are the first step in the overall global/hemispheric process and is the basis for future policy development to promote interregional communication (TF HTAP could provide a good basis for such endeavors). We need to look at existing regional and global players (such as UNEP, WMO, TF HTAP, EMEP, Asian and African networks, and initiatives in Latin America) to see how this might be achieved under commonly agreed principles and a strategic framework vision.

Scientific assessment and development of subsequent policy options would be a natural follow-on to the development of the data/information network. The GAP Forum could provide useful guidance on necessary links and ways forward in this process.

Presenting short-term and long-term benefits effectively would help convince policymakers to take action. Awareness-raising among the general public and involvement of stakeholders from industry and public interest groups could be important drivers.

Objectives could be reached through various channels including partnerships. These may differ between regions and there are different priority pollutants in Asia and Europe/North America that need to be

recognized. Different national, sub-regional and regional circumstances and capabilities must also be understood.

Policymakers in all regions need to be made aware of the potential of co-benefits.

Conclusions

With some 25 invited speakers, this conference has been recognized as a forward thinking meeting and the first to gather the interests in nitrogen, air pollution, climate change, ecosystem services and biodiversity all under the same roof.

It has thus paved the path towards better connections in policymaking between the multiple factors that influence the fragile equilibrium of our one atmosphere.

Presentations are available at APPA's website. For a view click [here](#).

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