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Inter-Governmental Network on Air Pollution in LAC

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Air Pollution in Latin America and the Caribbean

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A. Regional Issues for Consideration by the Inter-Governmental Network on Air Pollution in Latin America and the Caribbean

Representatives on the Inter-Governmental Network will have views on which of the air pollution issues with which they are dealing would most benefit from exploration at a regional scale within the Network. This paper, by the Global Atmospheric Pollution Forum, suggests a number of regional air pollution issues affecting Latin America and the Caribbean which are also of wider international relevance, and which the Forum believes might justify consideration by the Network. The issues were either raised by Latin American members of the Forum or have arisen from the Forum's general programme.

The issues are put forward on the basis that:

- they are significant to the region as a whole rather than to specific countries or sub-regions, and cover both regional transboundary problems and shared urban and local issues.
- they will benefit from being addressed at the regional scale.
- They are not being adequately addressed across the whole of Latin America by other fora.
- they would benefit from the sort of policy assessment and public discussion which the Inter-Governmental Network could promote and a strong linkage to the development of an evidence base for policy making by the scientific community.

I. Air Quality Management in the LAC Region: Needs and Resources

The region's capacity to make further progress in tackling its air quality problems depends crucially on the adequacy of resources and facilities for monitoring and scientific assessment. These are unevenly distributed through the region, and, for the region taken as a whole, are less than adequate.

This points to the need for a region-wide review of such capacity and resources, with a view to relating them to the scale and distribution of air pollution impacts and overall regional trends. This may represent an essential basis for the further development of air quality management in the region

It is understood that such a review has already been sponsored by the USEPA for the countries of Central America. Experience and conclusions might be available from this review to be drawn upon in the design of a wider programme;

- The Air Pollution Information Network for Africa began a comparable exercise shortly after its establishment. The result was a series of data assessments for seven countries of southern Africa, presenting their pollution status and the resources and capacities available to the national government. The review is proving a valuable source of understanding of the overall pollution and resource position in the region, and of the comparative circumstances of individual countries.

II. Air Quality and Health in the LAC Region

It is estimated that globally air pollution now accounts for of the order of a million premature deaths each year, and far higher levels of morbidity and hospitalisation.

Many of the essential elements for planning impact reduction strategies are well-understood. It is recognised for instance that elderly persons and young children, especially those with asthma, are most at risk. For many pollutants critical exposure and dose-response rates are now well-understood and transferable between regions.

There are however major variations between regions in the nature and distribution of health effects. These reflect both social and cultural conditions and local and regional patterns of pollution. However, most impact assessments are based on epidemiological studies conducted in the North America and Europe, and data from Latin America will have a far greater impact. New data are emerging from studies, for instance in Sao Paulo by the HEI, which strengthen the transferability of the relationships.

There may be a need to undertake a review which will allow a regional assessment of the position in Latin America and the Caribbean and provide a basis for developing national strategies

III. The Transport Sector and Air Pollution in the Mega-Cities and Emerging Mega-Cities of Latin America: a Review of Conclusions from the last 15 years

Over the last 15 years Latin American cities have played a leading role in international debate and experiment on strategies to tackle the impact of transport and motorization on health and environment in cities, and a number of important initiatives, such as Bus Rapid Transit, have been pioneered here. These have led to significant progress here and elsewhere. A number of leading Asian cities are now the source of rapid innovations and

new strategic policies; and the emerging mega-cities of Africa have begun to draw on the experience of Latin American cities, and the wider subsequent developments in Asia, to seek to tackle their own rapidly growing problems.

The problem for policy-makers – not only in the region but also more widely – is that the lessons and experience from this vast amount of innovation and experiment has not been adequately drawn together and the lessons consolidated in a way which enables the rapidly expanding cities in the region and elsewhere, which are tackling the problems for the first time, to draw on the lessons and conclusions from past experience.

A large number of organisations – inter-governmental bodies, NGOs, Foundations and Research Institutes – are of course active in the field, and some of them are seeking to consolidate experience and draw general conclusions, but, even taken together, they do not provide the sort of guidance and support needed by policy-makers who have to choose between alternative strategies and policy options at city and national level and who need the best available evidence of which policies have worked elsewhere and which have not.

The Inter-Governmental Network is asked to consider this issue. It might want, for instance, to approach funding agencies, with a view to a programme being commissioned which would:

- Review and seek to draw together conclusions from the various projects which are assessing results from BRT and other innovative urban transport strategies, both in Latin America and elsewhere
- Seek to make these more accessible to policy-makers, particularly in expanding cities confronting the problems for the first time.

IV. 'Atmospheric Brown Clouds' and their Impact in the Region

As a result of recent UNEP studies, it is now widely recognised that air pollution from ground-level sources - transport, industry and domestic sources – has now given rise to a dense cloud of pollution – dust particulates and aerosols – which now shroud vast areas of Southern Asia. Evidence suggests that this is increasingly interfering with weather patterns - particularly the monsoons – and accelerating glacier-melt. It is also having a significant impact on health and life-expectancy.

UNEP is proposing to extend the studies to Southern Africa, where a similar phenomenon (the 'River of Smoke') has been observed, with the pollution arising from similar sources, but also, in addition, from savannah-burning.

Consideration has also been given to extending the programme to Latin America, where similar phenomena also appear to be emerging – partly from forest-burning but partly also from more traditional pollution sources - but this was precluded because of limitations of resources and capacity and a view that the problems in Southern Africa were at present the more severe.

Although a major 'Atmospheric Brown Cloud' programme for Latin America seems unlikely in the near future it is clearly important that the potential implications of this work for the region should be carefully assessed.

The Inter-Governmental Network might want to seek advice on the issue – including a commentary on the position in the region and possible future scenarios – from UNEP and from the Global Atmospheric Pollution Forum

V. Climate Change and Air Pollutions: Optimising Synergies and Co-Benefits in the LAC Region

Climate change and air pollution are intimately linked at every level, in terms of sources, impacts and relevant abatement measures. Major ground-level air pollutants (such as ozone, black carbon and methane) are among the most powerful greenhouse gases. Evidence from studies around the world suggests that the long-term costs of achieving climate and air pollution targets could be significantly reduced (probably by something of the order of 20%) by the use of integrated climate change-air pollution strategies.

The links between climate and pollution are starkly visible in the environmental challenges facing the region, and, as in other regions, are relevant at every scale of environmental policy:

- At the project assessment scale, both sets of impacts will need to be balanced through an Integrated Environmental Assessment
- At the national level, when policy options are being considered, climate and pollution impacts and benefits can be balanced in an integrated manner through processes such as 'Strategic Environmental Assessment'
- Also at the national level, when national air quality strategies are being developed and states are developing programmes to meet climate change commitments, there will be a benefit in the two being considered closely together, and even – in a ideal situation – being fully integrated.

Co-benefits also need to be considered at the regional scale, for two principal reasons. There are, first of all, synergies and co-benefits linking air pollution and climate which are particularly relevant at the regional scale, or which are particularly important in the circumstances of a particular region. In addition, regional networks could potentially play an important role in promoting awareness of co-benefits at the national and urban scales and consideration of the policies and strategies best equipped to deliver them.

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