



Reducing Emissions of Short-Lived Climate Forcers (SLCF) Soot and Smog in Latin America A Civil Society Perspective

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This paper was prepared on the occasion of the Technical Workshop on Science and Policy of Short-lived Climate Forcers preceding the meeting of environmental ministers, with the objective of recommending specific measures to reduce premature deaths and illness from air pollution, improve food security by reducing crop loss, and minimize further glacier retreat and disruption of rainfall patterns in Latin America. Reductions in SLCF emissions will also increase the chance of not exceeding the 2 degree Celsius global warming target established in the Cancun agreement.

We echo leading scientists and the UNEP/WMO Assessment in highlighting that both near-term and long-term measures are critical to protect the climate system. Therefore, near-term mitigation measures such as SLCF emissions reductions must be additional to the immediate actions required to address long-lived climate forcing agents such as CO₂. It follows that resources to address SLCF should be additional to those allocated to address GHG emissions reductions.

1. Advances in the regulation and reduction of Short-Lived Climate Forcers in the region

A number of countries, provinces and municipalities in Latin America have already taken significant steps to control atmospheric pollution. Chile, Mexico and Colombia have adopted national PM_{2.5} air quality standards, as has the province of Buenos Aires. Although some of these standards should be strengthened, they nevertheless establish an important model for the region.

Similarly, some countries and provinces have established air quality standards for tropospheric ozone precursors such as carbon monoxide. Costa Rica and the state and the province of Córdoba, Argentina, have adopted methane standards.

Several countries have adopted vehicle emissions standards for particulate matter and other criteria pollutants, although inspection programs and compliance remain very limited. Availability of ultra-low sulfur fuel, which is a prerequisite for meeting stricter emission standards, is still a challenge in many countries including Mexico, although countries such as Colombia and Chile are meeting low sulfur fuel targets (from 3000 ppm in 2003 to 50 ppm in 2010).

Mexico City and the state of Sao Paulo have implemented air quality management and monitoring programs. Santiago de Chile, via municipal decree, has embarked on a program to retrofit its diesel bus

fleet with particle filters. Bogota, Curitiba and three cities in Mexico have implemented successful bus rapid transit systems (BRTs), and the city of Monterrey, Mexico fuels its metro system with recovered methane from municipal landfills.

But there is still a long way to go, with insufficient awareness in the region of the major health and development benefits of SLCF reductions and regional climate benefits. The 2011 UNEP/WMO assessment of black carbon and tropospheric ozone estimated that 2.4 million premature deaths, especially in women and children, and untold incidences of respiratory and other illnesses could be avoided through sustained reductions in black carbon and ozone. SLCF reductions could also contribute to the realization of other Millennium Development Goals (MDGs) in addition to health and child mortality, for example by reducing crop loss from ozone pollution and improving food security. A full social cost accounting of these benefits, for example, fewer hospitalizations and lost work days and increased crop productivity, shows that economic benefits far outweigh costs and are mainly realized in the locality that implements emissions reduction measures.

There is a great need for more comprehensive emissions monitoring and inventories, and for dedicated resources, strengthened environmental institutions and greater civil society engagement.

2. A regional approach and increased international cooperation can facilitate international cooperation and enhance national-level efforts

A strengthened regional approach to tackling atmospheric pollution is important because of transboundary transport and regional impacts of SLCF. A regional approach also facilitates international cooperation by UNEP, CLRTAP and the GAP Forum, which can enhance national efforts. Strengthening the Inter-Governmental Network on Air Pollution in Latin America and the Caribbean, and adopting the *Acuerdo Marco sobre Contaminación Atmosférica en América Latina y el Caribe* would further regional action.

Given pressing development needs in the region and ever scarcer resources, a regional approach can leverage emissions monitoring and inventory efforts, serve as a channel for technology transfer and finance, and help generate regional model standards, for example on clean technology and vehicle emissions. In some cases it may also be effective to work through sub-regional trade blocks such as MERCOSUR, Central American Integration System (SICA), and the Andean Pact. A commitment of international financial support, including from international financial institutions, will be necessary to facilitate emissions inventories and early adopter reduction efforts in the region.

Civil society involvement, including NGOs, the health sector, and universities, will be key to building awareness of the health benefits of SLCF emissions reductions, as well as the development and climate co-benefits, and to advocate for the adoption and stronger implementation of national and regional atmospheric pollution reduction approaches.

3. The Way Forward - Recommendations to Ministers

Initiatives to reduce SLCF emissions are a sound investment in public health and development that will reduce premature deaths, and the burden of illness and crop loss in the short term. Air quality measures are a sound investment in the future, reducing both human suffering and government costs. Benefits can be maximized, in both human and economic terms, by incorporating measures to improve air quality in long term policy planning in all relevant sectors.

Public policies in this area should target the most important methane and black carbon reduction opportunities in the region including: a) extended utilization and recovery of methane from coal, oil and gas production and long distance transmission lines; b) improved waste management, including separation and treatment of biodegradable municipal waste, capture of landfill biogas, and upgraded wastewater treatment; c) the elimination of high emission diesel vehicles, incentivizing the use of diesel particle filters and requiring that new diesel engines meet strong efficiency and emission standards; d) replacement of biomass cookstoves with advanced stoves, and; e) strengthening institutional frameworks and monitoring and enforcement capacity.

- Strengthen the Inter-Governmental Network on Air Pollution in LAC, including increasing international cooperation with the Convention on Long-Range Transboundary Air Pollution, the Global Atmospheric Pollution Forum and UNEP's regional networks in Asia among others. Include NGOs as formal observers in the Inter-Governmental Network.
- Enhance regional emissions monitoring and inventories, and adopt a standard methodology for black carbon emissions inventories.
- Strengthen and adopt the *Acuerdo Marco sobre Contaminación Atmosférica en América Latina y el Caribe*, in order that it may serve as a platform for international cooperation and regional efforts to monitor and reduce SLCF emissions.
- Propose that sub-regional trade blocks establish work programs on clean technology and other standards, such as for new diesel vehicles, which facilitate reduction of SLCF emissions.
- Strengthen the early warning fire alert systems in the region, and fire response and control capacity. Ban open burning for clearing pasture and preparing crop land.
- Redouble efforts to make clean, ultra-low sulfur fuel available throughout the region, a prerequisite for PM 2.5 emissions reductions, based on national and regional best-good practices.
- Fully implement existing PM2.5 air quality standards, and adopt such standards where they do not exist. Improve compliance with existing PM2.5 emissions standards, such as in the transport sector, and adopt such standards where they do not exist.
- Recommend a pilot project to inventory and reduce emissions of SLCFs in five highly affected megacities in region.