CLIMATE & CLEAN AIR COALITION
TO REDUCE SHORT-LIVED CLIMATE POLLUTANTS

PRESS RELEASE

Reducing Climate-related Air Pollution and Improving Health: Countries can act now and reap immediate

Countries that act now to reduce short-lived climate pollutants (SLCPs), such as black carbon particulates and tropospheric ozone, can reap immediate health benefits and health cost savings – as well as reducing the hazards that may be expected from the pace of climate change in this century.

This was a key message that emerged from an event 20 June in Geneva co-organized by the Climate and Clean Air Coalition (CCAC) and the World Health Organization (WHO), with the governments of Ghana, Norway and Sweden.

The side event at the annual WHO World Health Assembly meeting of health ministers brought together more than 200 health and environment experts from around the world to hear government ministers and leading scientists discuss strategies for fast-tracking reductions in air pollution-related death and disease – and reaping climate benefits simultaneously.

According to the estimates of a recent landmark global study published in The Lancet (Lim SS, et al, 2012), indoor air pollution was responsible for some 3.5 million deaths annually in 2010, while outdoor air pollution caused about 3.3 million deaths. Most of these deaths are due to excessive exposures to particulate pollution, which includes significant black carbon particles.

Considerable chronic disease, and some deaths, are caused by excessive exposure to tropospheric ozone – or smog – formed as a result of emissions of methane, another SLCP, and other gasses.

The immediate benefits of action are too important to await an international climate accord, said Dr Veerabhadran Ramanathan, a noted climate scientist at the University of California, San Diego and member of the CCAC Science Advisory Panel.

“Short-term climate pollutants can be addressed by bottom-up solutions,” Dr Ramanathan told the audience. “This is the beauty of the short-term pollutant issue… reductions do not require 160 nations to sign on a piece of paper. When it is short-term pollutants, the nations that take action, the benefits accrue to them.”

Diesel transport, biomass cookstoves and brick kilns are among the most significant sources of black carbon, while livestock production, agriculture and waste disposal are major sources of methane emissions as well as some black carbon.

The CCAC has developed a series of targeted initiatives for reducing black carbon and methane emissions in priority sectors. Over its first year of existence the Coalition has expanded to include some 61 members, including 31 national governments as well as multilateral agencies, NGOs and the European Commission.

As Tore Godal, the Special Advisor to the Prime Minister of Norway on Global Health, said, “The climate change problem needs quick results and solutions to drive the commitment to longer term solutions” and addressing short-lived pollutants can be that engine for change.

“The CCAC is a fantastic basis for intersectoral collaboration," he added.

SLCP reduction can generate primary and secondary health benefits

As the health sector confronts a soaring rate of noncommunicable disease in rich and poor countries alike, getting air pollution under control will be increasingly key to good health, said Dr Maria Neira, Director of WHO’s Department of Public Health and Environment.

Neira noted that according to the latest international research and data, some 30% of all deaths globally from chronic obstructive pulmonary disease (COPD) are caused by indoor smoke emitted by biomass and coal stoves. Outdoor air pollution is responsible for 22% of the global burden of death and disease from ischaemic heart disease -- one of the major noncommunicable diseases that is being targeted by health authorities today. Nearly 50% of childhood (under five) pneumonia deaths are from indoor smoke. Indoor and outdoor air pollution also is a factor in cancers, asthma, cataracts and adverse pregnancy outcomes.

Some SLCP mitigation actions that reduce air pollution-related disease can also generate secondary benefits, Neira pointed. For instance, legislation and regulations to reduce emissions from diesel vehicles and fuels could be supported by investments in more mass transit, which is safer than private vehicle travel, and by investments in safer urban walking and cycling networks, which support more activity and less obesity. Mitigation activities targeted to livestock, agriculture and industry, such as brick kiln production, can help support occupational health and dietary balance. And shifting poor homes to improved cooking, heating and lighting technologies can help reduce violence, injuries and deforestation associated with biomass fuel gathering and kerosene use.

Protecting agriculture – and food security – from SLCPs

Ozone pollution is becoming a major agricultural problem in some developing countries – a problem that harms food security and nutrition as well as respiratory health, noted Ghana’s new Health Minister Sherry Ayittey.

“There are a lot of losses due to ozone contributions,” Ayittey told the gathering, “particularly the maize. Some 32 million tons of these crops will be lost due to ground-level ozone concentrations…. We need to work with our economic and financial ministers for them to understand that if we don't do something about the health of people, then any investment in the development sector will not yield results.”

Ayittey urged other countries to take ownership of programmes to control their own emissions.

“Global warming is creeping very fast on the African continent,” she said, “affecting our crops, our livelihoods, our health. Development must go hand in hand with the control of emissions and of climate change. Otherwise the time will come that everything we put into development will come to zero.

“We must put in the measures now, so we can create a clean, healthy environment where health is no longer dependent only on drugs or vaccines, [where] we eat well, we breathe well, and we reduce pollutants in our agricultural products.”

Ayittey applauded the CCAC as a “country-driven” effort, saying, “Countries can take on their own issues,” she said, “so that we can solve our own problems. We can come up with interventions that

can improve the environment and at the same time improve the health of our people. Good health [makes] a wealthy nation."

Air pollution now outpacing many 'traditional' health risks

Household air pollution is at or near the top of the list of the 64 key risks to health that were examined as part of the 2010 global burden of disease assessment published late last year in The Lancet, noted Dr Kalpana Balakrishnan, Professor & Director of the WHO Collaborating Center for Occupational and Environmental Health at Sri Ramachandra University in India. Outdoor air pollution also ranked among the top ten risk factors in many developing countries.

That places air pollution ahead of health risks that have been a more traditional focus of health sector interventions, such as poor diet, high blood glucose or cholesterol, smoking, childhood underweight, alcohol and drug use, and vitamin deficiencies.

"These concentrations of [smoke] inside homes exceed the WHO guidelines manifold, she said, "so there is an unequivocal argument for action, " she said. To address household pollution, solutions such as liquefied petroleum gas (LPG) need to made more affordable and accessible, while technologies surrounding advanced biomass cookstoves need careful evaluation to see what improves health the most, prior to scale-up.

Dr Balakrishnan also urged policymakers to recognize the breadth of the air quality problem.

"I think part of the problem is just getting the attention that it deserves," she said. Indoor and outdoor air pollution initiatives also need better linkages, she added, noting that indoor air pollution contributes to significant outdoor air pollution in some cities and rural areas. In developing countries including India outdoor air pollution monitoring is well developed, but seldom are rural areas routinely covered . "It can't be just an urban city guideline. People in rural areas are also breathing the air."

Reducing SLCPs is a development issue

The Global Alliance for Clean Cookstoves has illustrated how concerted international action can bring attention to key health and sustainability issues, emphasized Gunilla Carlsson, Swedish Minister of International Development. Lessons learned from this initiative can be enhanced and expanded to address short-lived climate pollutants in other sectors through the CCAC.

"The science is there," she said. "It's a bit embarrassing that we have not organized ourselves around the actual challenges and solved problems not only for the future, but also for today."

Carlsson noted that development agencies also need to become more responsive to health and climate issues in their design of aid programmes that incorporate grassroots solutions, such as cleaner cookstoves, which also benefit the health of women and children.

"It's a development issue," she said. "We have not been quick enough with our development assistance, and we have not been flexible enough to respond to these demands among poor women. We are all in this together, and the solutions for immediate health improvements are all there. We have to learn to communicate. ... Civil society, partners of international organizations can do more together to communicate, to research, to create standards, to overcome market barriers and see that the production and use of clean cookstoves can increase dramatically."

"We profit from cleaner air"

While the health risks of air pollution are now well known, the benefits to health of improving air quality have been highlighted in a few studies only. One example is the long-term Swiss SAPALDIA

study tracking the health of random adult population samples in diverse Swiss cities and towns, noted Professor Nino Künzli, Deputy Director of the Swiss Tropical and Public Health Institute.

Over the first decade of study, people living in areas where the outdoor residential air pollution concentrations declined experienced health improvements, including fewer chronic respiratory symptoms, less asthma, and slower deterioration in adult lung function – important markers of aging and life expectancy. A companion Swiss study of children "SCARPOL" has found similar respiratory health improvements.

"So we do know that if we [reduce air pollution]," he said, "we reduce a lot of cardiovascular diseases, a lot of noncommunicable diseases (NCDs) and a lot of infectious diseases. We do profit from cleaner air." In that same period, he noted, Switzerland's GDP more than doubled, he added, noting that cleaner air and better health can save money beyond the investments made.

"Sixty-four countries [mostly in Africa and South Asia] now have air pollution as the major health risk factor among those studied," he added. "This is a very explosive fact. These are the same countries that have seen a very large shift in burden towards non communicable diseases. Air pollution is not only causing these NCDs, but people who are [already] suffering from these diseases, are especially at risk from air pollution."

This does not mean that infectious diseases, such as malaria, and vaccine-preventable diseases are no longer a problem in poor countries, Prof. Künzli cautioned. They are. "But now we have additional problems, and we should tackle them just as efficiently as we have vaccination."

To do that, he added, Ministry of Health policymakers need to press their colleagues in sectors such as transport to promote policies that improve health. "We need policies pushed by the ministers of health, for instance for clean vehicles. And this message, coming out of the Ministry of Health is unusual, because it is considered an environmental or economic story. But I think this is how we should move forward."

Reducing SLCPs and CO2 together is a net plus

Addressing SLCPs, which will slow near-term warming, complements action on CO2 reductions to keep the planet under the critical 2^{o} C warming point, beyond which the global ecosystem balance could spin out of control, stressed Ramanathan.

"We all know that the major component of warming is CO2," he said. "As a society at large we have failed to take actions. The climate has already warmed about eight-tenths of a degree in the industrial area… if [we continue] business as usual, we will see a 2 degree warming in 3-4 decades, and beyond that, the planet will go beyond 4 degrees.... When you are talking about a 2-4 degree warming beyond 2050… it will be a warming the planet has not experienced for several million years.

"[But] what we don't hear about is that there are several non-carbon-dioxide pollutants that contribute to global warming. We call them short-lived climate pollutants. When you release CO2, half of that will be circulating the globe 100 years from now, and 20 percent a thousand years from now. Short-lived climate pollutants are much, much shorter [in their presence in the atmosphere]. If we take action with landfills and sewage, most [methane] will be gone within a few months. [If we take action on] black carbon, most of it will be gone in a few weeks."

Dr Ramanathan went on, "If you think of the 2 degrees [heating of the atmosphere] as a guardrail that you do not want to go past, if you combine CO2 with short-term reductions, then there is at least a 50 percent chance that you can avoid exceeding the 2 degrees."

Citing a recent study published by the California Air Resources Board (CARB Black Carbon Report, 2013), Dr Ramanathan observed, “The fastest way to mitigate simultaneously indoor and outdoor deaths as well as loss of crops, global warming and sea level rise, glacier melting and disruption of monsoon rainfall, is to reduce drastically black carbon emissions from the diesel transportation and rural residential sectors. Technologies are available to reduce black carbon from these sectors by 70 percent to 99 percent.”

The study showed that ambient air black carbon concentrations over California had declined by 90 percent since 1960, due to improved fuels and vehicle emissions technologies, despite a five-fold increase in the use of diesel fuel oil, largely by vehicles.

Dr Ramanathan called the CCAC “the second front against climate change” and commented on the speed with which the partnership has grown. Why have policymakers responded so rapidly? he asked. Because “reduction of SLCPs has public health and food security benefits that will be realized in our lifetimes.”

The Climate and Clean Air Coalition is a voluntary global partnership of governments, intergovernmental organizations, businesses, scientific institutions and civil society committed to catalyzing concrete, substantial action to reduce Short Lived Climate Pollutants (including methane, black carbon and many hydrofluorocarbons). The Coalition has 11 initiatives working to raise awareness, mobilize resources and lead transformative actions in key emitting and cross cutting sectors. SLCP reduction must go hand in hand with deep and persistent cuts to carbon dioxide and other long-lived greenhouse gases if we are to stay under a 2 degrees Celsius warming limit.

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